

Oracle[®] Projects User Guide

RELEASE 11i
VOLUME 1

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ORACLE[®]

Oracle® Projects User Guide, Release 11i Volume 1

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Contents

VOLUME 1

	Preface	i
Chapter 1	Overview of Oracle Projects	1 – 1
	Overview of Oracle Projects	1 – 2
Chapter 2	Projects	2 – 1
	Overview of Projects and Tasks	2 – 2
	Project Templates	2 – 16
	Project Entry	2 – 32
	Project and Task Options	2 – 40
	Mass Update Batches	2 – 64
	Percent Complete	2 – 71
Chapter 3	Budgets	3 – 1
	Overview of Project Budgets	3 – 2
	Budget Entry	3 – 13
Chapter 4	Expenditures	4 – 1
	Overview of Expenditures	4 – 2

Pre-Approved Expenditures	4 – 9
Expenditure Adjustments	4 – 26
Viewing Expenditure Items	4 – 47
Viewing Accounting Lines	4 – 49
Converting Foreign Currencies	4 – 59
Transaction Controls	4 – 62

Chapter 5

Costing	5 – 1
Overview of Costing	5 – 2
Calculating Costs	5 – 5
Distributing Labor Costs	5 – 8
Precedence for Calculating Burden Cost	5 – 15
Burdening (Cost Plus Processing)	5 – 16
Storing and Viewing Burden Costs	5 – 30

Chapter 6

Allocations	6 – 1
Overview of Allocations	6 – 2
About Allocation Rules	6 – 4
Generating Allocations Transactions	6 – 19
Full and Incremental Allocations	6 – 26
AutoAllocations	6 – 28
Setting Up Workflow for Step-Down AutoAllocations	6 – 36
Processes for the PA Step Down Allocation Workflow	6 – 38
Troubleshooting Allocations and AutoAllocations	6 – 50

Chapter 7

Capital Projects	7 – 1
Overview of Capital Projects	7 – 2
Creating a Capital Asset in Oracle Projects	7 – 9
Defining Assets	7 – 12
Use Grouping Levels to Summarize Asset Costs	7 – 16
Placing an Asset in Service	7 – 22
Creating and Preparing Asset Lines for Oracle Assets	7 – 23
Reviewing and Adjusting Asset Lines	7 – 27
Sending Asset Lines to Oracle Assets	7 – 29
Adjusting Assets After Interface	7 – 31
Accounting for CIP and Asset Costs in Oracle Projects and Oracle Assets	7 – 36

Chapter 8	Billing	8 – 1
	Billing Data Flow for Contract Projects	8 – 2
	Overview of Contract Projects	8 – 3
	Funding a Contract Project	8 – 5
	Controlling Billing by Top Task	8 – 16
	Quick Agreement / Funding Projects	8 – 18
	Events	8 – 23
	Accruing Revenue for a Project	8 – 28
	Reviewing Revenue	8 – 41
	Invoicing a Project	8 – 48
	Accruing Revenue and Generating Invoices Based on Percent Complete	8 – 75
	Revenue–Based Cost Accrual	8 – 80
 Chapter 9	 Project Status Inquiry	 9 – 1
	Project Status Inquiry Overview	9 – 2
	Project Summary Amounts	9 – 11
 Chapter 10	 Reports and Listings	 10 – 1
	Submitting Reports and Listings	10 – 2
	Implementation Listings	10 – 4
	Project Entry Reports	10 – 15
	Transaction Entry Reports	10 – 17
	Project Expenditures Reports	10 – 20
	Project Status Reports	10 – 25
	Employee Activity Report	10 – 28
	Billing Review Reports	10 – 29
	Billing Process Flow Reports	10 – 33
	Interface Audit Reports	10 – 38
	Project Subledger Audit Reports	10 – 41
	Period Close Exception Reports	10 – 43
	Summarization Period Exceptions	10 – 46
 Chapter 11	 Processes	 11 – 1
	List of Processes	11 – 2
	Submitting Processes	11 – 5
	Add New Organization Compiled Burden Multipliers	11 – 7

Compile All Burden Schedule Revisions	11 – 8
Compute Forecast Labor Revenue	11 – 9
Create and Distribute Burden Transactions	11 – 10
Create Invoice Organization Transaction Types Process	11 – 12
Delete Draft Revenue of a Single Project	11 – 13
Distribute Borrowed and Lent Amounts	11 – 14
Distribute Expense Report Costs	11 – 16
Distribute Labor Costs	11 – 18
Distribute Supplier Invoice Adjustment Costs	11 – 20
Distribute Total Burdened Cost	11 – 22
Distribute Usage and Miscellaneous Costs	11 – 23
Generate Allocations Transactions	11 – 25
Generate Asset Lines	11 – 27
Generate Draft Invoices	11 – 30
Generate Draft Revenue	11 – 33
Generate Intercompany Invoices	11 – 36
Interface Assets	11 – 38
Interface Cross Charge Distributions to General Ledger	11 – 40
Interface Expense Reports from Payables	11 – 42
Interface Expense Reports to Payables	11 – 44
Interface Intercompany Invoices to Receivables	11 – 46
Interface Invoices to Receivables	11 – 48
Interface Labor Costs to General Ledger	11 – 50
Interface Revenue to General Ledger	11 – 52
Interface Supplier Invoice Adjustment Costs to Payables	11 – 54
Interface Supplier Invoices from Payables	11 – 55
Interface Total Burdened Cost to General Ledger	11 – 57
Interface Usage and Miscellaneous Costs to General Ledger ...	11 – 58
Process Mass Update Batches	11 – 60
Refresh Project Summary Amounts	11 – 61
Refresh Transaction Summary Amounts	11 – 62
Release Allocation Transactions	11 – 63
Tieback Cross Charge Distributions from GL	11 – 65
Tieback Expense Reports from Payables	11 – 67
Tieback Invoices from Receivables	11 – 69
Tieback Labor Costs from General Ledger	11 – 70
Tieback Revenue from General Ledger	11 – 71
Tieback Total Burdened Cost from General Ledger	11 – 72
Tieback Usage Costs from General Ledger	11 – 73

Transaction Import	11 – 74
Update Project Summary Amounts	11 – 76

Index

VOLUME 2

Chapter 12

Cross Charge and Inter–Project Billing	12 – 1
Overview of Cross Charge and Inter–Project Billing	12 – 4
Basic Business Needs	12 – 5
Glossary for Cross Charge and Inter–Project Billing	12 – 11
Major Features of Cross Charge	12 – 14
Major Features of Inter–Project Billing	12 – 33
Currency Model in Oracle Projects	12 – 35
Setting Up and Processing Cross Charge and Inter–Project Billing	12 – 37
Setting Up Cross Charge and Inter–Project Billing	12 – 38
Procedures for Cross Charge and Inter–Project Billing	12 – 47
Processing Flow for Cross Charge and Inter–Project Billing	12 – 62
Creating Cross Charge Transactions	12 – 64
Processing Borrowed and Lent Accounting	12 – 67
Processing Intercompany Billing	12 – 70
Interfacing Cross Charge Distributions to General Ledger	12 – 79
Adjusting Cross Charge Transactions	12 – 81
Overview of Processing Flow for Inter–Project Billing	12 – 88
Adjusting Inter–Project Billing Invoices	12 – 91

Chapter 13

Integration with Other Oracle Applications	13 – 1
System Integration	13 – 2
Integrating with Oracle General Ledger	13 – 10
Integrating Expense Reports with Oracle Payables	13 – 21
Integrating with Oracle Purchasing and Oracle Payables (Requisitions, Purchase Orders, and Supplier Invoices)	13 – 40
Integrating with Oracle Receivables	13 – 60
Integrating with Oracle Assets	13 – 72
Integrating with Oracle Human Resources	13 – 79
Integrating with Oracle Project Manufacturing	13 – 82

Integrating with Oracle Inventory	13 – 84
Integrating with Oracle Workflow	13 – 88
Integrating with Cash Management	13 – 106

Chapter 14

Integration with Non–Oracle Applications	14 – 1
Activity Management Gateway	14 – 2
Project Connect	14 – 7
Transaction Import	14 – 11
Transaction Import Interface	14 – 33

Chapter 15

Advanced Topics and Essays	15 – 1
List of Essays	15 – 2
Date Processing in Oracle Projects	15 – 3
Project and Labor Cost Security in Oracle Projects	15 – 13
Accounting Transactions	15 – 16
Reporting Requirements for Project Burdening	15 – 21
Implementing Burden Cost Accounting	15 – 36
Organizations in Oracle Projects	15 – 41
Support for Multiple Organizations in Oracle Projects	15 – 46
Multilingual Support	15 – 58

Chapter 16

Case Studies	16 – 1
List of Case Studies	16 – 2
Case Study: Incremental Allocations	16 – 3
Case Study: New Charges Not Allowed	16 – 8
Case Study: Organization–Based Transaction Controls	16 – 10
Case Study: Default Billable Status by Expenditure Type	16 – 12
Case Study: Surcharge	16 – 14
Case Study: Summary Amounts for Reporting	16 – 20
Case Study: Organization Change in Fremont Corporation	16 – 31

Index

VOLUME 3

Chapter 17

Oracle Projects Setup and Implementation	17 – 1
Planning Your Implementation	17 – 2
Overview of Setting Up Oracle Projects	17 – 5
Oracle Applications Set of Books	17 – 27
Employees and Organizations	17 – 34
Customers	17 – 54
Implementation Options	17 – 57
PA Periods	17 – 69
Oracle Projects Lookups	17 – 76
Expenditure Definitions	17 – 78
Non-Labor Costing Definitions	17 – 101
Labor Costing Definitions	17 – 104
Burden Costing Definitions	17 – 110
Indirect Costs	17 – 126
Billing	17 – 130
Budgets	17 – 168
Resources and Resource Lists	17 – 174
Project Definition	17 – 183
Project Status Inquiry Setup	17 – 213
Profile Options	17 – 234
Descriptive Flexfields	17 – 236
AutoAccounting and the Account Generator	17 – 237
Using the Account Generator in Oracle Projects	17 – 302
Setting Up the Account Generator Processes	17 – 306
Using AutoAccounting with Account Generator Processes	17 – 323
Comparing AutoAccounting to the Workflow Account Generator	17 – 327

Chapter 18

Advanced Implementation Issues	18 – 1
Tracking Overtime and Premium Labor Costs	18 – 2
Integrating Commitments from External Systems	18 – 29
Custom Reporting Using Project Summary Amounts	18 – 34
Setting Up for Multi-Currency Processing	18 – 44
Implementing Oracle Projects for Integration With Other Applications	18 – 46

Chapter 19

Client Extensions	19 – 1
Client Extensions	19 – 2
Project Security Extension	19 – 11
Budget Calculation Extensions	19 – 14
Transaction Control Extensions	19 – 22
Labor Costing Extensions	19 – 31
Labor Transaction Extensions	19 – 34
Labor Billing Extensions	19 – 46
Overtime Calculation Extension	19 – 50
Burden Costing	19 – 56
Commitment Changes	19 – 58
Descriptive Flexfield Mapping	19 – 60
Receivables Installation Override	19 – 65
Billing Extensions	19 – 67
Billing Cycle Extension	19 – 98
Automatic Invoice Approve/Release Extension	19 – 100
AR Transaction Type Extension	19 – 105
Output Tax Extension	19 – 108
Project Verification Extension	19 – 110
Project Workflow Extension	19 – 113
Budget Verification Extension	19 – 116
Budget Workflow Extension	19 – 119
Verify Organization Change Extension	19 – 125
Allocation Extensions	19 – 129
AutoApproval Extension	19 – 142
Asset Assignment Extension	19 – 144
Cost Plus Application Programming Interface (API)	19 – 147
Cross-Charge Client Extensions	19 – 151
Provider and Receiver Organizations Override Extension	19 – 152
Cross-Charge Processing Method Override Extension	19 – 154
Transfer Price Determination Extension	19 – 157
Transfer Price Override Extension	19 – 160
Transfer Price Currency Conversion Override Extension	19 – 163
Cost Accrual Identification Extension	19 – 165

Appendix A

Menu Paths	A – 1

Appendix B

Profile Options	B – 1

Appendix C	Function Security C – 1
Appendix D	Descriptive Flexfields D – 1
Appendix E	Attachments E – 1
	Glossary
	Index

Reader's Comment Form

Oracle Projects User's Guide Release 11i A82836-01

Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information we use for revision.

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Thank you for helping us improve our documentation.



Preface

Welcome to Release 11i of the *Oracle Projects User Guide*.

This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Oracle Projects

If you have never used Oracle Projects, we suggest you attend one or more of the Oracle Projects training classes available through Oracle University.

- The Oracle Applications graphical user interface.

To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User Guide*.

See Other Information Sources for more information about Oracle Applications product information.

How to Use This Guide

This guide contains the information you need to understand and use Oracle Projects.

This preface explains how this user guide is organized and introduces other sources of information that can help you. This guide contains the following chapters:

VOLUME 1

- Chapter 1 provides a brief introduction to Oracle Projects, including descriptions of Oracle Project Costing and Oracle Project Billing.
- Chapter 2 describes how to create project templates and enter new projects.
- Chapter 3 explains how to budget your projects based on the desired level of detail, and how to manage the budgets you create.
- Chapter 4 describes how to enter and manage expenditures created using Oracle Projects.
- Chapter 5 tells you how to calculate, distribute, and burden project costs.
- Chapter 6 describes how you can allocate costs to projects and tasks.
- Chapter 7 contains an overview of capital projects and explains how to create, place in service, adjust, and account for assets in Oracle Projects.
- Chapter 8 describes the steps necessary to bill a contract project, including setup, funding, revenue accrual, and invoicing.
- Chapter 9 describes the project status inquiry feature and the project summary amounts that Oracle Projects maintains for project status tracking.
- Chapter 10 describes each standard report and listing.
- Chapter 11 contains information about the processes you can run in Oracle Projects. The processes perform tasks such as distributing costs, generating invoices, or transferring data to other accounting applications.

VOLUME 2

- Chapter 12 describes accounting within and between operating units and legal entities (cross charge and inter-project billing).

- Chapter 13 tells you how to integrate Oracle Projects with other Oracle Applications.
- Chapter 14 describes how Oracle Projects integrates with non-Oracle applications using the Oracle Activity Management Gateway, Oracle Project Connect for Microsoft Project, and the Oracle Projects Transaction Import program.
- Chapter 15 contains information about advanced topics in Oracle Projects, including project and labor cost security, organizations, and multiple organization support.
- Chapter 16 contains case studies of some Oracle Projects features and implementation examples.

VOLUME 3

- Chapter 17 contains detailed information about setting up Oracle Projects.
- Chapter 18 contains advanced implementation instructions such as tracking overtime, custom reporting, and implementing Oracle Projects for integration with other Oracle applications.
- Chapter 19 tells you how to use the Oracle Projects client extensions. The client extensions enable you to extend Oracle Projects functionality to fulfill your business needs.
- The appendices include information about menu paths, profile options, function security, descriptive flexfields, and attachments.

Finding Out What's New

From the HTML help window for Oracle Projects, choose the section that describes new features or what's new from the expandable menu. This section describes:

- New features in 11*i*. This information is updated for each new release of Oracle Projects.
- Information about any features that were not yet available when this user guide was printed. For example, if your system administrator has installed software from a mini pack as an upgrade, this document describes the new features.

Other Information Sources

You can choose from many sources of information, including documentation, training, and support services, to increase your knowledge and understanding of Oracle Projects.

If this guide refers you to other Oracle Applications documentation, use only the Release 11i versions of those manuals unless we specify otherwise.

Online Documentation

All Oracle Applications documentation is available online (HTML and PDF). The technical reference guides are available in paper format only. Note that the HTML documentation is translated into over twenty languages.

The HTML version of this guide is optimized for onscreen reading, and you can use it to follow hypertext links for easy access to other HTML guides in the library. When you have an HTML window open, you can use the features on the left side of the window to navigate freely throughout all Oracle Applications documentation.

- You can use the Search feature to search by words or phrases.
- You can use the expandable menu to search for topics in the menu structure we provide. The Library option on the menu expands to show all Oracle Applications HTML documentation.

You can view HTML help in the following ways:

- From an application window, use the help icon or the help menu to open a new Web browser and display help about that window.
- Use the documentation CD.
- Use a URL provided by your system administrator.

Your HTML help may contain information that was not available when this guide was printed.

Related User Guides

Oracle Projects shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other user guides when you set up and use Oracle Projects.

You can read the guides online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them from the Oracle store at <http://oraclestore.oracle.com>.

User Guides Related to All Products

Oracle Applications User Guide

This guide explains how to navigate the system, enter data, and query information, and introduces other basic features of the GUI available with this release of Oracle[®] HRMS (and any other Oracle Applications product).

You can also access this user guide online by choosing “Getting Started and Using Oracle Applications” from the Oracle Applications help system.

Oracle Alert User Guide

Use this guide to define periodic and event alerts that monitor the status of your Oracle Applications data.

Oracle Applications Implementation Wizard User Guide

If you are implementing more than one Oracle product, you can use the Oracle Applications Implementation Wizard to coordinate your setup activities. This guide describes how to use the wizard.

Oracle Applications Developer's Guide

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards*. It also provides information to help you build your custom Oracle Developer forms so that they integrate with Oracle Applications.

Oracle Applications User Interface Standards

This guide contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications products and how to apply this UI to the design of an application built by using Oracle Forms.

User Guides Related to This Product

Oracle Assets User Guide

In Oracle Assets, you can post capital project costs to become depreciable fixed assets. Refer to this guide to learn how to query mass additions imported from Oracle Projects to Oracle Assets and to review asset information.

Oracle General Ledger User Guide

Use this manual when you plan and define your chart of accounts, accounting period types and accounting calendar, functional currency, and set of books. It also describes how to define journal entry sources and categories so you can create journal entries for your general ledger. If you use multiple currencies, use this manual when you define additional rate types, and enter daily rates. This manual also includes complete information on implementing Budgetary Control.

Oracle HRMS Documentation Set

This set of guides explains how to define your employees, so you can give them operating unit and job assignments. It also explains how to set up an organization (operating unit). Even if you do not install Oracle HRMS, you can set up employees and organizations using Oracle HRMS windows. Specifically, the following manuals will help you set up employees and operating units:

- **Using Oracle HRMS – The Fundamentals**

This user guide explains how to set up and use enterprise modeling, organization management, and cost analysis.

- **Managing People Using Oracle HRMS**

Use this guide to find out about entering employees.

Oracle Inventory User Guide

If you install Oracle Inventory, refer to this manual to learn how to define project–related inventory transaction types and how to enter transactions in Oracle Inventory. This manual also describes how to transfer transactions from Oracle Inventory to Oracle General Ledger.

Oracle Payables User Guide

Refer to this manual to learn how to use Invoice Import to create invoices in Oracle Payables from Oracle Projects expense reports data in the Oracle Payables interface tables. This manual also explains how to define suppliers, and how to specify supplier and employee numbering schemes for invoices created using Oracle Projects.

Oracle Project Manufacturing Implementation Manual

Oracle Project Manufacturing allows your company to associate manufacturing costs and inventory to a specific project and task. Use this manual as your first source of information if you are implementing Oracle Project Manufacturing.

Oracle Purchasing User Guide

If you install Oracle Purchasing, refer to this user guide to read about entering and managing the requisitions and purchase orders that relate to your projects. This manual also explains how to create purchase orders from project–related requisitions in the AutoCreate Documents window.

Oracle Receivables User Guide

Use this manual to learn more about Oracle Receivables invoice processing and invoice formatting, defining customers, importing transactions using AutoInvoice, and Defining Automatic Accounting in Oracle Receivables.

Oracle Business Intelligence System Implementation Guide

This guide provides information about implementing Oracle Business Intelligence (BIS) in your environment.

BIS 11i User Guide Online Help

This guide is provided as online help only from the BIS application and includes information about intelligence reports, Discoverer workbooks, and the Performance Management Framework.

Using Oracle Time Management

This guide provides information about capturing work patterns such as shift hours so that this information can be used by other applications such as General Ledger.

Oracle Applications Flexfields Guide

This guide provides flexfields planning, setup, and reference information for the Oracle® HRMS implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This guide also provides information on creating custom reports on flexfields data.

Multiple Reporting Currencies in Oracle Applications

If you use Multiple Reporting Currencies feature to report and maintain accounting records in more than one currency, use this manual before implementing Oracle Projects. The manual details additional steps and setup considerations for implementing Oracle Projects with this feature.

Multiple Organizations in Oracle Applications

If you use the Oracle Applications Multiple Organization Support feature to use multiple sets of books for one Oracle Projects installation, use this guide to learn about setting up and using Oracle Projects with this feature.

Installation and System Administration Guides

Oracle Applications Concepts

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11i. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind, and major issues, for Applications-wide features such as Business

Intelligence (BIS), languages and character sets, and self-service applications.

Installing Oracle Applications

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle One-Hour Install, which minimizes the time it takes to install Oracle Applications and the Oracle 8*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle One-Hour Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user guides and implementation guides.

Upgrading Oracle Applications

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process in general and lists database upgrade and product-specific upgrade tasks. You must be at either Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0 to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

Using the AD Utilities

Use this guide to help you run the various AD utilities, such as AutoInstall, AutoPatch, AD Administration, AD Controller, Relink, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities.

Oracle Applications Product Update Notes

Use this guide as a reference if you are responsible for upgrading an installation of Oracle Applications. It provides a history of the changes to individual Oracle Applications products between Release 11.0 and Release 11*i*. It includes new features and enhancements and changes made to database objects, profile options, and seed data for this interval.

Oracle Applications System Administrator's Guide

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to

define security, customize menus and online help, and manage processing.

Oracle Projects Technical Reference Manual

The *Oracle Projects Technical Reference Manual* contains database diagrams and a detailed description of Oracle Projects and related applications database tables, forms, reports, and programs. This information helps you convert data from your existing applications, integrate Oracle Projects with non-Oracle applications, and write custom reports for Oracle Projects.

You can order a technical reference manual for any product you have licensed. Technical reference manuals are available in paper format only.

Oracle Workflow Guide

This guide explains how to define new workflow business processes as well as customize existing Oracle Applications-embedded workflow processes. You also use this guide to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes.

Training and Support

Training

We offer a complete set of training courses to help you and your staff master Oracle Applications. We can help you develop a training plan that provides thorough training for both your project team and your end users. We will work with you to organize courses appropriate to your job or area of responsibility.

Training professionals can show you how to plan your training throughout the implementation process so that the right amount of information is delivered to key people when they need it the most. You can attend courses at any one of our many Educational Centers, or you can arrange for our trainers to teach at your facility. We also offer Net classes, where training is delivered over the Internet, and many multimedia-based courses on CD. In addition, we can tailor standard courses or develop custom courses to meet your needs.

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle® HRMS working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle server, and your hardware and software environment.

Installation and System Administration

Oracle Applications Installation Manual

This manual and the accompanying release notes provide information you need to successfully install Oracle Financials, Oracle Public Sector Financials, Oracle Manufacturing, or Oracle Human Resources in your specific hardware and operating system software environment.

Oracle Applications Upgrade Manual

This manual explains how to prepare your Oracle Applications products for an upgrade. It also contains information on finishing the upgrade procedure for each product. Refer to this manual and the *Oracle Applications Installation Manual* when you plan to upgrade your products.

Oracle Applications System Administrator's Guide

This manual provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage processing.

Oracle Applications Product Update Notes

This book contains a summary of each new feature we added since Release 10.7, as well as information about database changes and seed data changes that may affect your operations or any custom reports you have written. If you are upgrading from Release 10.6 or earlier, you also need to read Oracle Applications Product Update Notes Release 10.7.

Other Information

Training

Oracle Education offers a complete set of training courses to help you and your staff master Oracle Applications. We can help you develop a training plan that provides thorough training for both your project team and your end users. We will work with you to organize courses appropriate to your job or area of responsibility.

Training professionals can show you how to plan your training throughout the implementation process so that the right amount of information is delivered to key people when they need it the most. You can attend courses at any one of our many Educational Centers, or you can arrange for our trainers to teach at your facility. In addition, we can tailor standard courses or develop custom courses to meet your needs.

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Projects working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle server, and your hardware and software environment.

Do Not Use Database Tools to Modify Oracle Applications Data

We STRONGLY RECOMMEND that you never use SQL*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications tables, unless we tell you to do so in our guides.

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using an Oracle Applications form can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications forms, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications forms to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. But, if you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support and office automation, as well as Oracle Applications. Oracle Applications provides the E-business Suite, a fully integrated suite of more than 70 software modules for financial management, Internet procurement, business intelligence, supply chain management, manufacturing, project systems, human resources and sales and service management.

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CHAPTER

1

Overview of Oracle Projects

This chapter provides a brief overview of Oracle Projects, including descriptions of Oracle Project Costing and Oracle Project Billing.

Overview of Oracle Projects

Oracle Projects is a central part of the complete software solution for project-oriented companies, providing you with a flexible approach to defining and structuring projects, tasks, and budgets by which to monitor project status.

Oracle Projects consists of the following products:

- Oracle Project Costing
- Oracle Project Billing
- Oracle Project Connect for Microsoft Project
- Oracle Activity Management Gateway
- Oracle Project Analysis Collection Pack

To view the Oracle Projects Flow in graphical form: see Oracle Projects Information Flow Diagrams: page 1 – 4.

GUI Interface

Oracle Projects has a highly responsive, multi-window graphical user interface (GUI) with full point-and-click capability. You can use your mouse or keyboard to use pull-down menus, buttons, poplists, check boxes, tabs, and other controls.

You can read more about the basic characteristics of this user interface in the *Oracle Applications User's Guide*.

Oracle Project Costing

Oracle Project Costing provides you with the ability to define projects, work breakdown structures, and budgets; record and report costs against projects; and integrate with other Oracle Applications, including Oracle Purchasing, Oracle Payables, Oracle General Ledger, and Oracle Assets to account for costs.

With Oracle Project Costing, you can:

- Enter projects and tasks. You can define chargeability control to limit charges to your projects and tasks
- Enter cost budgets and baseline them

- Track committed costs of requisitions, purchase orders, and supplier invoices
- Record detailed cost transactions for timecards, expense reports, asset usage, and supplier invoices. Your managers and staff can enter their timecards and expense reports in pre-approved batches
- Interface costs between other Oracle Applications while maintaining a detail audit trail
- Collect CIP costs and interface asset costs to Oracle Assets when you are ready to place the asset in service
- Report project status online and in reports

Oracle Project Billing

Oracle Project Billing provides you with the ability to define revenue and invoicing rules for your projects; generate revenue; create invoices; and integrate with other Oracle Applications to process revenue and invoices. Oracle Project Billing includes all of the functionality of Oracle Project Costing and additionally integrates with Oracle Receivables.

In addition to the functionality that Oracle Project Costing provides, you can perform the following functions:

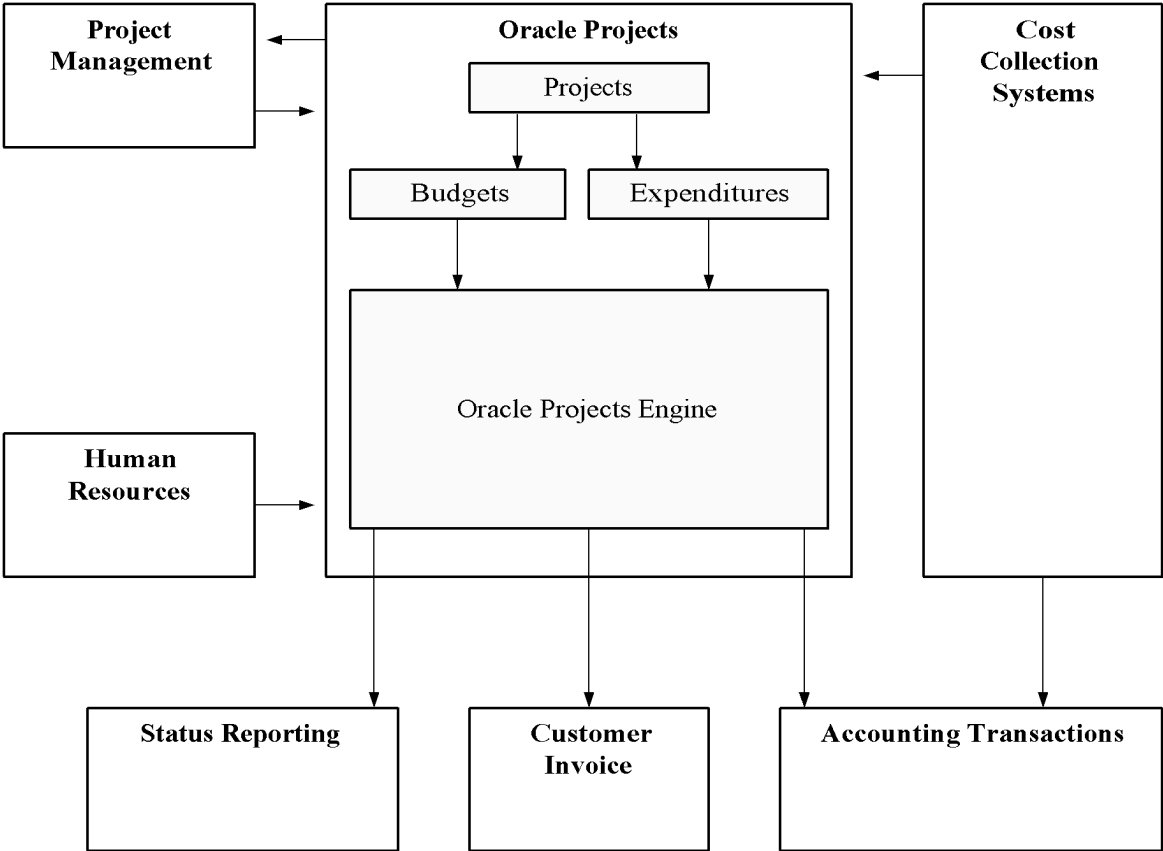
- Enter project customers and contacts with whom you have negotiated and contracted project work
- Enter agreements (contracts) from your customers and fund projects with those agreements
- Generate revenue using various methods including time and materials, percent complete, and cost plus
- Create draft invoices from detail transactions and milestones for online approval by your project or accounting managers
- Interface revenue to Oracle General Ledger and invoices to Oracle Receivables while maintaining a detail audit trail
- Report project revenue, invoice, and receivables status online and in reports

Oracle Projects Information Flow Diagrams

The following three diagrams illustrate the Oracle Projects flow. Each successive diagram magnifies a section of the pervious diagram.

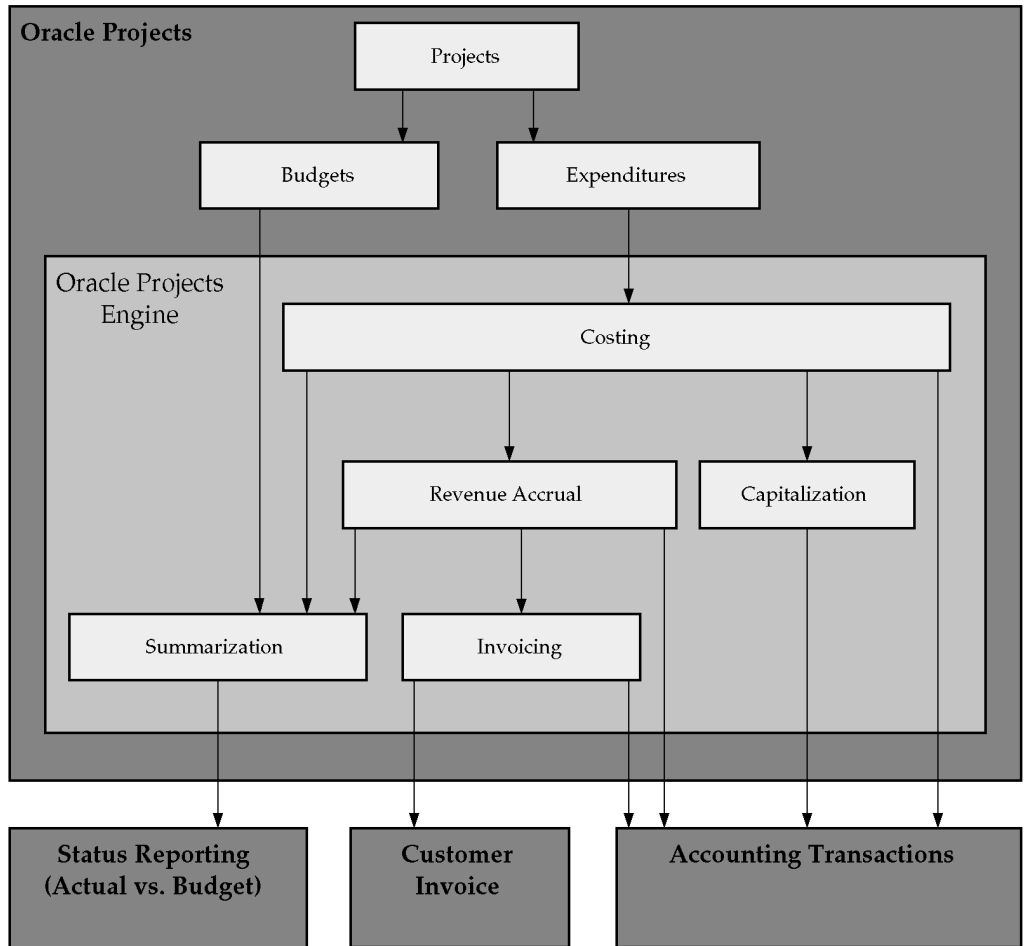
Oracle Projects Flow Diagram: Overview

Figure 1 – 1



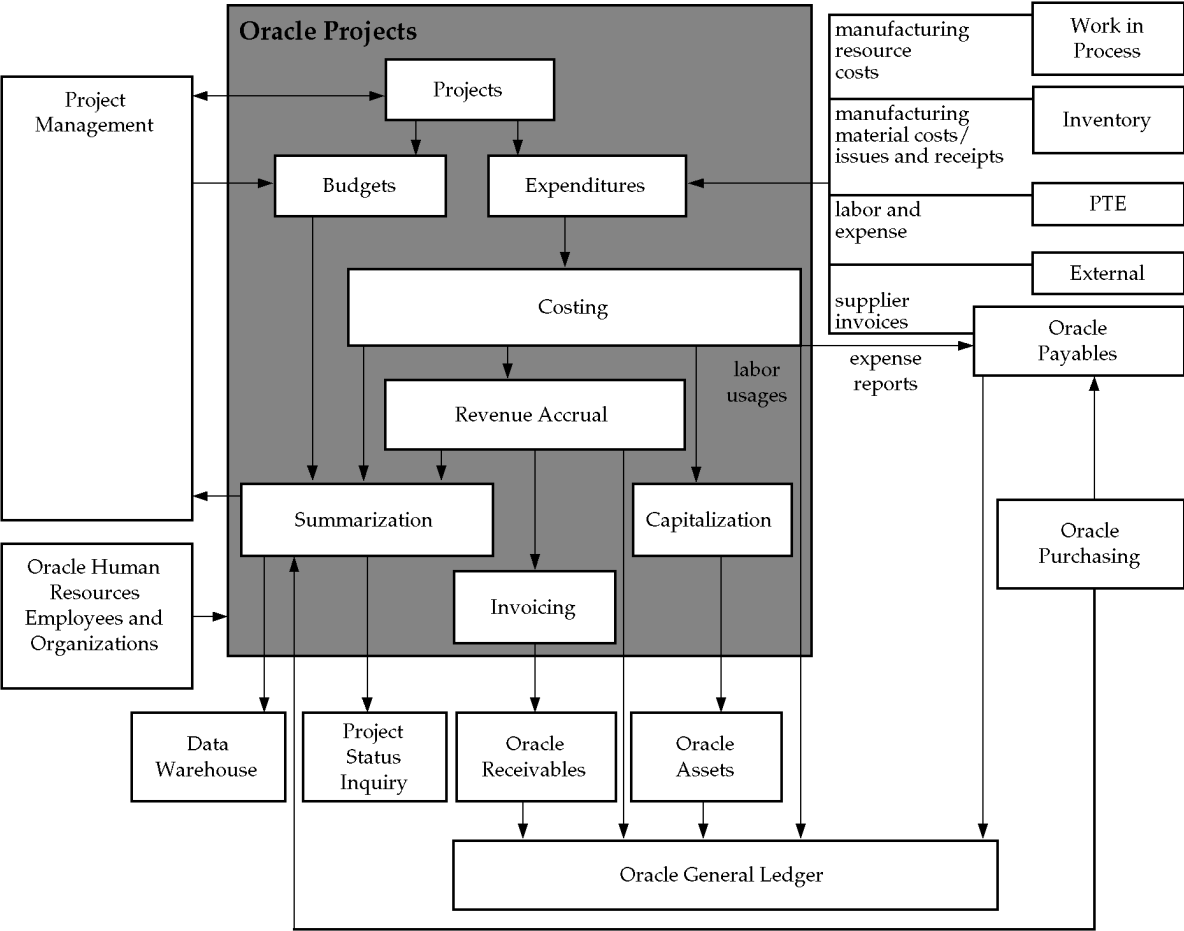
Inside the Oracle Projects Engine

Figure 1 – 2



Oracle Projects Flow Diagram: Detail

Figure 1 – 3



See Also

System Integration: page 13 – 2

CHAPTER

2

Projects

This chapter describes how to enter projects in Oracle Projects.

Overview of Projects and Tasks

Projects, Templates (Vision Services: USD)

Number

Research & Development

Type

R & D

Duration

05/JAN/1997

-

30/NOV/1999

Description

Research & Development

☐ Public Sector

Name

Research & Development

Organization

Consulting-East

Status

Approved

☐ Workflow in Process

☐ Template

Change Status

Options

Option Name

☐ Tasks

☐ Classifications

☐ Cross Charge

☐ Key Members

☐ Organization Overrides

☐ Resource List Assignments

☐ Transaction Controls

☐ + Burden Multipliers

Detail

A project is a primary unit of work that you can break down into one or more tasks. You charge the transactions you enter in Oracle Projects to a project and a task. When you set up a project, you must set up the work breakdown structure (WBS), and enter project and task information.

This section explains how to use Oracle Projects to organize your project setup to meet your business needs.

Setting Up a Project Work Breakdown Structure (WBS)

You organize your project work into smaller, more easily manageable units called tasks. Every project has one task by default. You can define

a hierarchy of tasks called a work breakdown structure (WBS). Oracle Projects supports an unlimited work breakdown structure, in which you can define as many levels of tasks as you want. You can number and name the tasks as you wish.

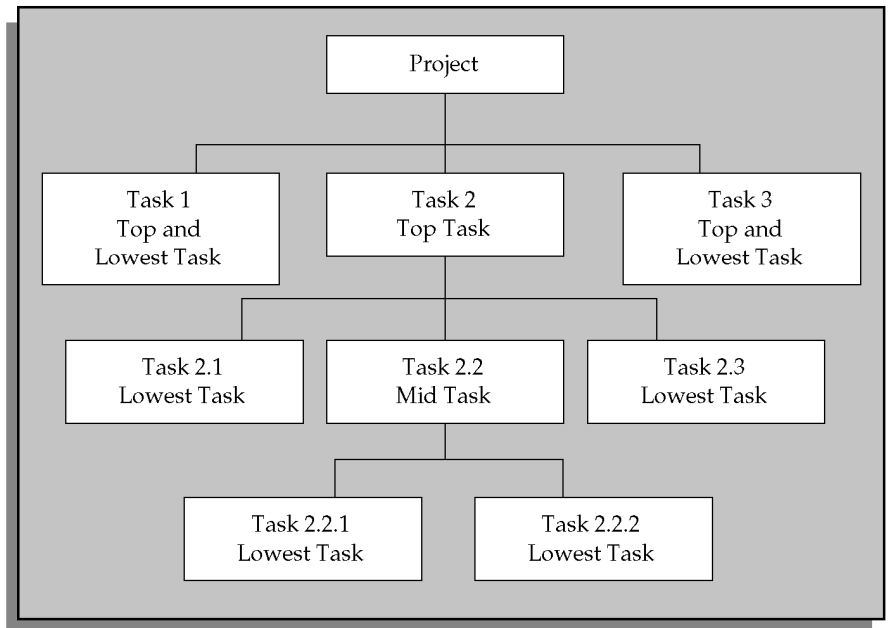
Oracle Projects processes tasks based on their position in the WBS. The three distinct positions are:

- **Top Task:** A task whose parent is the project
- **Mid Task:** A task that is not a top task or a lowest task
- **Lowest Task:** A task that is at the bottom of the WBS, without any child tasks

A top task can also be considered a lowest task, if the task does not have any child tasks. For example, in Figure 2 – 1, Tasks 1 and 3 are lowest tasks as well as top tasks. Tasks 2.1 and 2.3 are lowest tasks although they are on the same level as Task 2.2, which is a mid task. A task that is the child of another task is commonly referred to as a subtask.

Figure 2 – 1

Task Levels



Oracle Projects sorts the WBS alphanumerically by task number within a task level, so be sure that your numbering methods reflect an organized

WBS. For example, if you have several subtasks for a particular top task, such as Task 3, you number the tasks as follows:

- 3 – Top Task
- 3.1 – Subtask 1 under Task 3
- 3.2 – Subtask 2 under Task 3
- 3.2.1 – Subtask 1 under Subtask 3.2
- 3.2.2 – Subtask 2 under Subtask 3.2

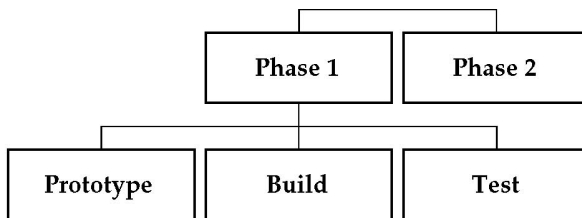
Or, if you have more than ten top tasks in your WBS, use the following numbering method, so Oracle Projects displays the levels in the correct numerical order:

- 01 – Task 1
- 02 – Task 2
- 03... – Task 3, Task 4, and so on
- 10 – Task 10

Plan your WBS numbering method carefully, whether it is numeric or alphanumeric. For example, if you used numbers 1 through 11 (instead of 01, 02, etc.) in the previous example, Oracle Projects would display your tasks in the following order: 1, 10, 11, 2, and so on.

In this example, note how the unplanned use of an alphanumeric numbering method yields unexpected results when the WBS is displayed online in indented format.

You define task level structure:



Oracle Projects displays:

Phase 1	}	sorted alphanumerically
Build		
Prototype		
Test		
Phase 2		

See Also

Adding to the Work Breakdown Structure After Budgets Are Entered:
page 3 – 3

Viewing a Work Breakdown Structure (WBS)

You can view the hierarchy of tasks for a project in the Tasks, Task Budgets, and Task Status windows. A plus sign (+) indicates an expandable task. A minus sign (–) indicates a collapsible task.

► **To view a WBS:**

1. Navigate to the Tasks, Task Budgets, or Task Status window:

Tasks window: Choose Projects from the Navigator window and find the project you want. Choose Open. From the options region of the Projects, Templates window, select Tasks and choose Detail.

Task Budgets window: Choose Budgets from the Navigator window and find the budget you want. Choose Details.

Task Status window: Choose Project Status from the Navigator window and find the project you want. Choose Task Status.

2. To expand a task so you can view its subtasks, double-click on the task number or the plus sign (+).

In the **Tasks** window you also can choose the double-plus sign (++) button to expand a task.

3. To collapse a task, double-click on the task number or the minus sign (–).

Control Functions by Project and Task Level

Oracle Projects supports the following functions at the project and task levels:

Oracle Projects Functions	Level at which function is allowed		
	Project	Top Task	Lowest Task
For All Projects			
Budgeting	X	X	X
Transaction Entry			X
Customer Entry	X		
For Capital Projects			
Asset Definition	X		
Asset Assignments	X	X	X
For Contract Projects			
Funding from Customer Agreements	X	X	
Event Entry	X	X	
Invoice Generation	X		

Table 2 – 1 (Page 1 of 1)

See Also

Project and Task Options: page 2 – 40

Overview of Expenditures: page 4 – 2

Transaction Controls: page 4 – 62

Billing: page 8 – 2

About Capital Projects: page 7 – 2

Overview of Budgeting Projects: page 3 – 2

Project-Based Security

Oracle Projects provides several layers of project security:

- **Profile Option.** The PA: Cross-Project Responsibility profile option allows users to query and update all projects. If this profile option is not set, users can query and update only those projects for which the user is assigned as a key member.
- **Project Security Extension.** The Oracle Projects security client extension overrides the responsibility security (profile options) by module. See: Project and Labor Cost Security: page 15 – 13.
- **Project Management Controls.** Project management controls enable you to set up security controls over data imported to Oracle Projects from an external project management system. See: Project Management Controls: page 14 – 4.

Projects Window Reference

This section describes the fields you can enter when you create a new project in the Projects window. For more information about options you specify at the project level, see: Project and Task Options: page 2 – 40.

Number

Unique identification number of a project. You use this number to find and identify the project throughout Oracle Projects. You can manually enter a project number, or let the system automatically generate one for you. The project numbering method you set up in the Implementation Options form determines how to create the number.

For audit trail purposes, you cannot modify a project number after you charge expenditure items, requisitions, purchase orders, or supplier invoices to the project.

Unlike projects, *project templates* are always numbered *manually*. The Project Numbering implementation option, which determines whether projects are numbered automatically or manually, does not affect numbering of project templates.

Name

A short, unique, descriptive name of a project. Use this name to find and identify a project throughout Oracle Projects.

Project Type

The project type determines how Oracle Projects processes costs (expenditure items) for a project and provides defaults and controls for project entry and processing. You must associate each project type with a project type class:

- Use the **Indirect** project type class to collect and track expenditure item costs and labor hours for overhead activities, such as administrative and overhead work, marketing, and bid & proposal preparation. You can also define indirect projects to track time off including sick leave, vacation, and holidays
- Use a **Capital** project type class to collect and track costs and labor hours for asset development activities that you plan to capitalize as one or more assets. See: About Capital Projects: page 7 – 2
- Use a **Contract** project type class to collect and track costs, labor hours, revenue, and billing for services performed for and reimbursed by a client

Note: Only Oracle Project Billing supports contract projects. See: Billing: page 8 – 2.

For audit trail purposes, you cannot change a project type after you create customer invoices for the project, or charge expenditure items, requisitions, purchase orders, or supplier invoices to the project.

Organization

The managing ("owning") organization of a project. Use the organization for reporting and AutoAccounting purposes. You can choose any organization that has the following characteristics:

- The organization belongs to the project / task organization hierarchy assigned to the operating unit.
- The organization has the project / task owning organization classification enabled.

- The project type class is permitted to use the organization to create projects. This permission is determined when you define the organization.
- The organization is active as of the system date.

See: Organizations in Oracle Projects: page 15 – 42.

Changing the Owning Organization

For audit trail purposes, there are controls over modification of the project or task owning organization.

When you attempt to change the organization on a project or task, the Verify Organization Change Extension is called to determine whether the change is allowed. The default logic in the extension does not allow the change if either of the following conditions exists:

- transactions have been charged to the project or task
- revenue has been generated for the project or task
- draft invoices have been generated for the project or task

You can override the default logic in the extension in one of the following ways:

- Have your System Administrator assign the function Projects: Org Update: Override Standard Checks to your responsibility. See: Function Security in Oracle Projects: page C – 2.
- Modify the logic in the Verify Organization Change extension. See: Verify Organization Change Extension: page 19 – 125.

If the change is allowed, Oracle Projects displays a dialog box when you save or exit the record. The dialog box asks if you want to recalculate the expenditure items on the project. If you check the Recalculate check box, the current date is used as the effective date of the change.

If your user responsibility excludes the function Expenditure Inquiry: Adjustments: Recalculate Cost and Revenue, Oracle Projects does not display the dialog box and does not mark the items for recalculation.

Changing the Owning Organization on Multiple Projects and Tasks

If you need to change the owning organization on multiple projects and tasks, you can use the Mass Update Batches window to create a batch of projects and tasks to update. See: Mass Update Batches: page 2 – 64.

Start Date and Completion Date

The duration of a project. You cannot charge an expenditure item if the date falls outside the project dates of that project. You can leave both dates or just the end date blank; you must enter a start date if you want to enter a completion date. See: Overview of Expenditures: page 4 – 2 and Transaction Controls: page 4 – 62.

Status

Indicates the current status of a project.

Oracle Projects provides several predefined project statuses. You can define additional project statuses in the Project Statuses window. Status Controls for each project status allow you to set up permissions or restrictions on actions for each project status.

For example, you can control whether new transactions can be charged to a project with a certain project status. The same is true for revenue accrual and invoicing. See: Project Statuses: page 17 – 183. In addition, you can run costing for uncosted transactions that have already been charged to a project that now has a Closed status. See: Transaction Controls: page 4 – 62.

The Starting Status for the project's Project Type determines the default value of this field.

Change Status

To change the status of a project, you choose Change Status. When you enter a status change for a project, Oracle Projects uses the following rules to determine if the status change is allowed:

- The project must have class codes entered for all required class categories. See: Project Classifications: page 2 – 42.
- If the project is a contract project, the project must have at least one customer, and the total billing contribution must equal 100%. See: Customers and Contacts: page 2 – 43.
- Each project customer for the project must have at least one billing contact defined. See: Customers and Contacts: page 2 – 43.
- The project must have a project manager assigned to it.

In addition to these rules, Oracle Projects provides a client extension, the Project Verification Extension, that you can use to define additional rules

you want to apply for changing the project status of a project. See: Project Verification Extension: page 19 – 110.

Public Sector

Use the Public Sector check box to indicate whether a project is a private or public sector project. Use this for reporting and AutoAccounting purposes.

See Also

Project Statuses: page 17 – 183

Creating a New Project from a Project Template or Existing Project: page 2 – 32

Project Templates: page 2 – 16

Tasks Window Reference

Tasks (Vision Services: USD) - Research & Development

Task Number	Task Name	Description	Start Date	Completion Date
+ 1.0	Scope Requirements	Develop Scope Requirements	05/JAN/1997	
2.0	Design Project	Design Project	12/JAN/1997	

++... Options Create Subtask Create Peer Task

This section describes the fields you can enter when you create new tasks in the Tasks window. For more information about options you specify at the task level, see: Project and Task Options: page 2 – 40.

As you create tasks, Oracle Projects defaults values from the project or the parent task to the new task. A top task accepts default values from its owning project. In addition, a new subtask accepts default values from its owning parent task.

If you modify project attributes, Oracle Projects does not change the default task information for existing tasks. In addition, if you modify task attributes, Oracle Projects does not change the default task information for lowest tasks. However, new top or lowest tasks you subsequently create inherit the new default information.

The following task details default from the project to any new top or child tasks:

- Organization
- Start date
- Completion date
- Service type
 - For top tasks, this defaults from project type
 - For sub tasks, this defaults from the parent task
- Task manager
 - No default for top tasks
- Work Site
 - For top tasks, this defaults to the customer work site if only one customer
 - For sub tasks, this defaults from the parent task
- Cost burden schedule
- Capitalizable indicator (for capital projects only)
 - For top tasks, this defaults to capitalizable
 - For sub tasks, this defaults from the parent task
- Billable indicator (for contract projects only)
 - For top tasks, this defaults to billable
 - For sub tasks, this defaults from the parent task
- Billing schedules and discounts (for contract projects only)

Task Number

Unique identification number of the task within the project. You can enter a numeric or alphanumeric value.

For audit trail purposes, you cannot modify a task number after you create customer invoices for the project, or charge expenditure items, requisitions, purchase orders, or supplier invoices to the project.

Suggestion: Oracle Projects sorts your WBS by the task number within a WBS level, so ensure that your numbering methods reflect an organized WBS. See: Set Up a Project Work Breakdown Structure: page 2 – 2.

Task Name

A short, descriptive name of the task. You can use the same task name many times within a project.

Start Date and Completion Date

The duration of the task. You can leave both dates or just the end date blank; you must enter a start date to enter a completion date. The task dates must be within the project dates and the dates of the parent task. You cannot charge an expenditure item whose date falls outside the task dates to that task. These dates are defaulted from the project for top tasks and the parent task for subtasks.

(Optional) Task Manager

The employee responsible for managing this task.

The task manager is used for reporting purposes only (see: Task–Revenue, Cost, Budgets by Resources: page 10 – 25), and is not the same as the key member.

Organization

The organization that manages the task. You can use the organization for reporting and AutoAccounting. This value is defaulted from the project organization; the task organization can be different from the project organization. You can choose any organization that is identified as a project or task owning organization based on the Project / Task Organization Type you set up in the Implementation Options form.

For audit trail purposes, there are controls over when you can change a task organization. See: Changing the Owning Organization: page 2 – 9.

Service Type

The type of work performed on this task. You use this value for reporting and AutoAccounting. This value is defaulted from the project type of the project.

Allow Charges

This check box controls whether to allow new expenditure items to be charged to a task. You can only enter expenditure items at the lowest task. The default is to allow charges for all new tasks. You can only allow charges for lowest tasks. Parent tasks are not chargeable. Uncheck this check box if you want to prevent new charges to this task. Oracle Projects automatically unchecks the check box for a task when you create a child task for it. See: Determining if an Item is Chargeable: page 4 – 66.

Capitalizable

This check box controls whether the expenditure items you charge to the task are eligible for capitalization. The capitalizable indicator is applicable for capital projects only. See: Specifying Capitalizability of Capital Project WBS Levels: page 7 – 10.

Billable

This check box controls whether the expenditure items you charge to the task are eligible for revenue accrual and billing. The billable indicator is applicable for contract projects only. See: Billing for Contract Projects: page 8 – 2 and Determining if an Item is Billable: page 4 – 68.

Location

The customer work site address where you perform a task. You can select any active, ship-to site defined for a project customer.

See Also

Entering Tasks (WBS) for a Project: page 2 – 36

Project and Task Options: page 2 – 40

Project Templates

You can easily enter a project by copying a project template or another project, and then changing specific values using the Quick Entry feature.

You can set up any kind of project as a template, and define different combinations of default project options for each template. You can create a single template for use across the company or many templates for each office in your company. A project template includes the following elements:

- Basic project information
- Work breakdown structure (WBS)
- Agreement and funding (optional)
- Project and task options, including key members, classifications, transaction controls, and any other project and task options (optional)
- Budgets (optional)
- Quick Entry fields which specify fields to enter for the new project when creating it from a template
- Project Option controls which list the project options to display for new projects created from a template

In a multi-organization environment, project templates belong to only one operating unit. Project templates can only be maintained and copied within an operating unit. However, project template numbers are unique across operating units. A project template number cannot duplicate any project or project template number within the Oracle Projects installation.

Project Template Design Considerations

Before you define project templates for your company, consider the following ideas.

- You must create at least one project template for every project type class that your company uses. All projects originate from a template. You cannot change the project type class when you copy a project from a template.



Suggestion: Oracle Projects allows you to change a project's project type, as long as the new type belongs to the project class assigned to the project (See: Changing the Project Type of a Project: page 2 – 34.) However, you may find it most efficient to

create a project template for each project type that your company uses, so that you can set up the appropriate parameters for each project type in each template.

- Use a numbering and / or naming convention for your templates so it is easy to identify the purpose and definition of each one.

Project templates are always numbered *manually*. The Project Numbering implementation option, which determines whether projects are numbered automatically or manually, does not affect numbering of project templates.

- Define typical work breakdown structures and task durations for common projects. Consider the task numbering, task names, task duration, service types, and managing organizations. See: Overview of Projects and Tasks: page 2 – 2
- If you are going to associate the project template with an agreement template, you must enter a customer in the customer project option.
- If you do not want the task organizations to change when you copy the project template, set the project organization to an organization that is not used as a task organization. See: Project and Task Organizations: page 2 – 22
- Use Quick Entry fields for Key Members and Classifications when these values usually change for each new project
- If you want to maintain key members and classifications in your templates, you must define enough templates for each combination of key member and classification, and for the rest of the project template definition. Consider the amount of maintenance required for each template before you create them
- Determine the appropriate project and task options for each template to simplify project entry and maintenance
- Determine who can create templates in your company. Any active template can be used throughout the company



Suggestion: If your company does not want to use predefined templates, you can set up one template for each project type that everyone can use. You should enable all project and task options that are appropriate to the project type for this skeleton template. Do not define default values, other than the minimum required fields. See: Specifying Project and Task Options for a Template: page 2 – 28.

See Also

- Creating a Project Template: page 2 – 29
- Quick Entry: page 2 – 18
- Using Project Templates and Quick Entry: page 2 – 20
- Specifying Project and Task Options for a Template: page 2 – 28

Quick Entry

Field Name	Value	Required
Project Number		☒
Project Name		☒
Project Manager		☒
Project Start Date		☒
Product		☒
		☐
		☐

OK Cancel

Use the Project Quick Entry window when creating a new project by copying a template or existing project. In Project Quick Entry, you override the values defined for the project template. If you copy from a project that was created from a template, Oracle Projects uses the Project Quick Entry fields from the source template for your new project.

You can set up the following Quick Entry fields:

- Project Number
- Project Name
- Project Start Date
- Project Completion Date
- Project Description
- Project Status
- Public Sector Indicator
- Organization
- Customer Name

You should have a primary bill to and ship to address for a customer to use the customer in Quick Entry. If you enter the name of a customer that does not have an active primary bill-to or ship-to site, then Oracle Projects creates the project without a project customer. See: Project Customers in Project Templates: page 2 – 26.

- Key Members (by project role type)
- Project Classifications (by class category)
- Distribution Rule (for contract projects only)

Values you enter in Quick Entry fields override template defaults. Quick Entry fields you leave blank do not override template defaults, except for the following fields:

- Customer Name
- Key Members
- Project Classifications

Table 2 – 2 explains how you can use Quick Entry to enter values for specified fields that differ from the predefined template.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Org: Info Services	Org: Data Systems	Org: Data Systems
Type: Time & Materials		Type: Time & Materials

Table 2 – 2 (Page 1 of 2)

Project Template	Quick Entry Fields	New Project
Work Breakdown Structure: Task 1 Task 1.1 Task 1.2 Task 2		Work Breakdown Structure: Task 1 Task 1.1 Task 1.2 Task 2:
	Key Members: Project Mgr: Gray Coordinator: Smith	Key Members: Project Mgr: Gray Coordinator: Smith
Classification: Market Sector: Risk		Classification: Market Sector: Risk

Table 2 – 2 (Page 2 of 2)

See Also

Defining Quick Entry Fields: page 2 – 27

Using Project Templates and Quick Entry

This section describes how specific values are set for new projects and tasks based on the template definition and the values that you enter in Quick Entry. Use the template definition to define project information that does not typically change for each new project created from the template. Use Quick Entry fields to enter values that differ from the project template defaults.

Start Date and Completion Date in Project Templates

You can set up a default start and completion date for your project templates to reflect the typical duration of different kinds of projects and tasks. Use Quick Entry to enter the actual start date and completion date of the project. Oracle Projects uses the start and completion dates you enter, and the start and completion dates for the tasks in the template to determine the new task dates. In other words, Oracle Projects uses Quick Entry start and completion dates you enter and adjusts the task dates accordingly.

For example, if you enter a project start date which is ninety days later than the template start date, Oracle Projects adjusts the new project's *task* start and completion dates forward ninety days as well. If the resulting start or completion dates are later than the project completion date, Oracle Projects sets the start and /or completion date of those tasks to the project completion date. Thus, Oracle Projects ensures that the task dates remain within the new project's effective date range.



Suggestion: If you use templates with durations, do not allow entry of the project completion date in Quick Entry without entry of start date.

Oracle Projects shifts the effective dates of the project level options by the number of days between the start date in the project template and the start date that you enter. It shifts the effective dates of the task level options by the number of days between the new task start date and the start date of the task in the project template.

If you do not enter start and completion dates in Quick Entry fields, Oracle Projects creates the new project and its tasks with the same dates as the project template.

Quick Entry Date Shift Examples

Example 1: Same project and task duration

In Example 1, Oracle Projects maintains the duration of the project and tasks in the template.

Project Template		Quick Entry	New Project	
Project Start	MAY 01	Start Date JUN 01	Project Start	JUN01
Project Completion	MAY 31		Project Completion	JUL 01
Task Start	MAY 02		Task Start	JUN 02
Task Completion	MAY 31		Task Completion	JUL 01
Key Member Effective MAY 01			Key Member Effective JUN 01	

Table 2 – 3 (Page 1 of 1) Example 1

Example 2: Shorter project duration

In Example 2, the new project duration is shorter (30 days) than the template duration (31 days). The task duration is shortened to 29 days to fall within the project dates.

Project Template		Quick Entry	New Project
Project Start	MAY 01	Start Date JUN 01	Project Start JUN 01
Project Completion	MAY 31	Completion Date JUN 30	Project Completion JUN 30
Task Start	MAY 02		Task Start JUN 02
Task Completion	MAY 31		Task Completion JUN 30
Key Member Effective MAY 01			Key Member Effective JUN 01

Table 2 – 4 (Page 1 of 1) Example 2

Example 3: Shorter project and task duration

In Example 3, the new project duration (15 days) is shorter than the template duration (31 days), and the task duration (30 days) is cut short (to 14 days) to fall within the project dates.

Project Template		Quick Entry	New Project
Project Start	MAY 01	Start Date JUN 01	Project Start JUN 01
Project Completion	MAY 31	Completion Date JUN 15	Project Completion JUN 15
Task Start	MAY 02		Task Start JUN 02
Task Completion	MAY 31		Task Completion JUN 15

Table 2 – 5 (Page 1 of 1) Example 3

Project and Task Organizations in Project Templates

You can create project templates to reflect the organizations that are typically responsible for the project and its different tasks.

When you specify an organization for a new project using Quick Entry, Oracle Projects assigns this new organization to any tasks originally assigned to the same organization as the project organization in the template. All tasks that are by default managed by a different organization than the project organization in the template retain that managing organization in the new project.

In Table 2 – 6, Oracle Projects updates the task organizations in the new project, based on whether you accept the template default or enter the Quick Entry field. The organization for Task 2 changes because its

managing organization is the same as the project organization in the template, and you changed the organization for the new project.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Org: Info Services	Org: Data Systems	Org: Data Systems
Work Breakdown Structure (with Task Orgs): Task 1: Risk Task 1.1: Risk Task 1.2: Risk Task 2: Info Services		Work Breakdown Structure (with Task Orgs): Task 1: Risk Task 1.1: Risk Task 1.2: Risk Task 2: Data Systems

Table 2 – 6 (Page 1 of 1)

Key Members in Project Templates

The key member Quick Entry field overrides all key members defined in the template for a given project role type. If you use a project role type with a key member Quick Entry field, the key members you entered in the template for that role type are not copied to the new project.

The examples below illustrate various ways to define key members in your templates and Quick Entry fields.

Example 1: Use template definition and Quick Entry field

In Table 2 – 7, you define the role type of *Coordinator* in the template and *Project Manager* in the Quick Entry field.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Key Members: Coordinator: Smith	Key Members: Project Mgr: Gray	Key Members: Project Mgr: Gray Coordinator: Smith

Table 2 – 7 (Page 1 of 1)

Example 2: Override key member in template with Quick Entry field

In Table 2 – 8, you define the *Coordinator* role type as a key member in the template and a Quick Entry field. The key member you enter in the Quick Entry field overrides the key member you define in the template

for that role type, even if you leave the Quick Entry field blank. In this case, Oracle Projects creates the new project without a *Coordinator*.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Key Members: Coordinator: Smith	Key Members: Project Mgr: Gray Coordinator:	Key Members: Project Mgr: Gray

Table 2 – 8 (Page 1 of 1)

Example 3: Use a role type more than once in Quick Entry

You can allow entry of more than one key member per role type in Quick Entry fields for all role types except *Project Manager*. You can enter only one project manager for a project.

In Table 2 – 9, you enter two key members with the same role type (*Technical Lead*).

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
	Key Members: Project Mgr: Gray Technical Lead: Marlin Technical Lead: Jones	Key Members: Project Mgr: Gray Technical Lead: Marlin Technical Lead: Jones

Table 2 – 9 (Page 1 of 1)

Project Classifications in Project Templates

The classification you enter in the Quick Entry field overrides all project classifications you define in the template for a given class category. If you use a class category with a classification Quick Entry field, the project classifications you entered in the template for that class category are not copied to the new project.

The examples below illustrate various ways to define project classifications in your templates and Quick Entry fields.

Example 1: Use template definition and Quick Entry field

In Table 2 – 10, you define the class category *Market Sector* in the template and *Funding Source* in Quick Entry fields.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Classification: Market Sector: Risk	Classification: Funding Source: Private	Classification: Market Sector: Risk Funding Source: Private

Table 2 – 10 (Page 1 of 1)

Example 2: Override classification in template with Quick Entry field

In Table 2 – 11, you define a classification for the *Market Sector* class category in the template and a Quick Entry field. The classification you enter in the Quick Entry overrides the classification you define in the template for that class category, even if you leave the Quick Entry field blank. In this case, Oracle Projects creates the new project without a *Market Sector* classification.

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Classification: Market Sector: Risk	Classification: Funding Source: Private Market Sector:	Classification: Funding Source: Private Market Sector:

Table 2 – 11 (Page 1 of 1)

Example 3: Use a class category more than once in Quick Entry

You can allow entry of more than one classification for a class category if you define the class category to allow more than one code per project.

In Table 2 – 12, you enter two classifications with the class category (*Lead Source*).

Project Template	Quick Entry Fields	New Project
Name: ABC	Name: XYZ	Name: XYZ
Classification: Market Sector: Risk	Classification: Funding Source: Private Lead Source: Lead Source:	Classification: Funding Source: Private Market Sector: Risk Lead Source: Mailing Lead Source: Seminar

Table 2 – 12 (Page 1 of 1)

Project Customers in Project Templates

If you use customer as a Quick Entry field, Oracle Projects does not copy the customers in the template to the new project. If you do not include customer as a Quick Entry field, Oracle Projects copies the customers from the source template to the new project. You can enter only one customer for a project using Quick Entry.

When you specify a value for the customer name in Quick Entry, Oracle Projects creates a project customer with a contribution of 100% and the customer relationship you specified during Quick Entry setup. For contract projects, Oracle Projects sets the bill site and work site of the project customer to the customer's primary bill-to site and ship-to site, respectively. In addition, Oracle Projects creates a billing contact based on the contact associated with the active, primary bill-to site, and a shipping contact based on the contact associated with the active, primary ship-to site.

If the customer does not have an active, primary bill-to or ship-to site, then the customer validation will fail and you must enter another customer or leave the override customer field blank in order to create the project. If the customer does not have a primary bill-to contact, a warning message will be displayed, but the project will still be created.

You use the Setup, Customer window within Oracle Projects to define an active, primary bill-to and ship-to site, as well as a bill-to contact, for your customers. You do not have to go to customer setup in Oracle Receivables to create this data. See: *Customers Oracle Receivables User's Guide*.

Defining Quick Entry Fields

As part of a project template definition setup, you can choose which Quick Entry fields you want to define. Oracle Projects prompts you to enter information in these Quick Entry fields when you create a new project from a template. Choose Quick Entry fields for project information you want to enter (instead of accepting the template default) each time you create a project. Quick Entry fields appear in the Quick Entry window. For each Quick Entry field, you can specify the following:

Order: Enter a number to indicate the sequence in which you want the Quick Entry fields to appear.

Field name: Choose the fields you want to appear in the Quick Entry window when you create a new project.

Specification: You enter a specification for the following field names:

- **Key Member:** Select the project role type to use when creating the key member
- **Classification:** Select the class category to use when creating the classification
- **Customer Name:** Select the customer relationship to use when creating the project customer

Prompt: You can enter a field name that is different from the predefined field name to display when you use Quick Entry.

Required: Choose whether you want to require entry for the Quick Entry field.

Oracle Projects automatically includes Project Name and Project Number as required Quick Entry fields if you use manual project numbering.

► **To define Quick Entry fields:**

- Enter or find your template in the Projects, Templates window, and choose Setup Quick Entry. Enter or modify your Quick Entry fields.

If you modify the Quick Entry fields for an existing template, Oracle Projects uses your updated Quick Entry fields for new projects you create from the template or from projects originally created from that template.

See Also

Project Templates: page 2 – 16

Quick Entry: page 2 – 18

Creating a Project Template: page 2 – 29

Specifying Project and Task Options for a Template

You can control which project and task options to display for projects based on the template you use to create the new project. You choose to hide or display options for each template during template setup. For example, if your company never uses Organization Overrides, or if you do not want employees to override options for certain projects, you can hide these options for one or more templates.

You choose which options you want to hide. When you choose to hide an option, Oracle Projects hides it at both the project and task levels (for those options available at both levels).

When you select options to display for a project template, you must ensure that the template displays any options that you want project users to view and enter. You also can enter data for a project option in a template that does not appear on the new project. In this case, you cannot view or change this information in any project created from this template, unless you query the project in the Projects, Templates Summary window (Setup, Projects, Project Templates from the navigator window).

You can change project options for a template at any time. If you modify the project options to display for a template, Oracle Projects reflects these changes when you view the options for projects created from that template. In addition, the updated template definition applies to all new projects you create from this template.

► **To specify project and task options for a template:**

1. Enter or find your template in the Project, Templates Summary window (Setup, Projects, Project Templates from the navigator window) and choose Open.
2. In the Options region, check the Show box to display or hide the appropriate options.
 - You must hide project options that are not appropriate for the project type class. For templates using an indirect or contract project type, hide the *Asset Information* options. For templates using an indirect or capital project type, hide the *Billing Information* and *Bill Rates and Overrides* option
 - Oracle Projects groups some of the options into a simple two level hierarchy. If an option has sub-options, you need to disable each options at all levels. If you hide all of the child options, you must also hide the parent option

See Also

Creating a Project Template: page 2 – 29

Updating a Project Template: page 2 – 31

Creating a Project Template

You can create a project template by:

- Entering project options for a new project template
- Copying a project definition from an existing project or template

Prerequisites

- ☐ Set up your Project Types. See: Project Types: page 17 – 196.
- ☐ Set up your Project Statuses (optional). See: Project Statuses: page 17 – 183.
- ☐ Set up your Project Role Types (optional). See: Project Role Types: page 17 – 191.

- ☐ Set up your Project Classifications (optional). See: Project Classifications: page 17 – 186.
- ☐ Set up your Project Customer Relationships and Contact Types (optional). See: Project Customer Relationships: page 17 – 193 and Contact Types: page 17 – 194.
- ☐ Set up your Credit Types (optional). See: Credit Types: page 17 – 160.

► **To create a new template:**

1. Navigate to the Setup Project Templates form.
2. Choose New from the Find Projects window or from the Project, Templates Summary window.
3. Enter the basic project template information, including number, name, organization, and project type in the Projects, Templates window.
4. Set up the appropriate project options for the template by choosing which options to display or hide. See: Specifying Project and Task Options for a Template: page 2 – 28.
5. Setup the Quick Entry fields. See: Defining Quick Entry Fields: page 2 – 27.
6. Enter or modify tasks for the template. Oracle Projects automatically creates one default task for the template. See: Entering Tasks (WBS) for a Project: page 2 – 36.
7. Enter or modify the appropriate project and task options. See: Project and Task Options: page 2 – 40.
8. Enter or modify the budget. See: Entering a Budget Draft: page 3 – 15.
9. Save your work.

► **To copy from an existing template or project:**

- Find the project or template you want to copy, and choose Copy. Modify the copied template definition if necessary. See: Creating a New Project from a Project Template or Existing Project: page 2 – 32

Updating a Project Template

You can update a project template at any time. All changes to a project template affect projects that are created from the template after the changes are made. The following changes affect projects that were created from the template before the changes were made:

- **Project Option Controls**

If you change the project option controls of a template, then the Projects, Templates window for existing projects created from the template displays the new set of options.

- **Quick Entry Fields**

If you change quick entry fields for a template, the new set of quick entry fields are displayed when you create a new project by copying a project which was created from the template.

► **To update a project template:**

- Find the project template that you want to update in the Project Templates form and choose Open. Update the project template definition as necessary.

Disabling a Project Template

You can disable a project template by changing the template effective dates. You may want to disable a template if your company policies have changed and you need to replace the existing templates.

You can reinstate a disabled project template at any time by changing the effective dates.

Any projects or templates previously created from a template that is now disabled continue to use the Quick Entry fields and project options as defined in the project template.

► **To disable a project template:**

- Find the project template that you want to disable in the Project Templates window. Choose Open. Set the Template Effective Dates to the dates during which the template is no longer available for use.

Project Entry

Find Projects (Vision Services: USD)

Project

Search For: **Projects, Templates**

Number:

Name:

Type: **R & D**

Organization: **Consulting-East**

Status: **Active**

Product Source:

Source Reference:

Key Member

Name:

Number:

Role:

Customer

Name:

Number:

Relationship:

Classification

Category:

Class Code:

Clear **Find**

To create a new project, you find a template or an existing project that best matches your project needs, copy the template, use Quick Entry to modify information unique to the new project, and then modify or add tasks and any other project options that are required for your project definition.

Creating a New Project from a Project Template or Existing Project

When you create a project from a template or another project, Oracle Projects copies the project, its work breakdown structure, and all of the project and task options to the new project. It also copies the budget amounts from the source template or project to the new project's budget.

If you copy an existing capital project, Oracle Projects copies all the asset assignments and most asset information to your new capital project. Oracle Projects does **not** copy the following asset information to your project: Asset Number, Asset Location, Employee Asset Assigned to, and Actual Date Placed in Service. Oracle Projects shifts the Estimated

In Service Date by the number of days between the start date in the project template and the start date that you enter.

If you copy from a template with an agreement, funding, and baselined revenue and cost budget, Oracle Projects copies the agreement, funding, baselined revenue, and baselined cost budgets to the new project.

If you copy a project from an existing project that has an attachment, the attachment is copied to the new project. If you copy an existing capital project, assets associated with the existing project (and any attachments to the assets) will be copied to the new capital project. See: Attachments in Oracle Projects: page E – 2.

Oracle Projects does not copy any transactions charged to the source project to the new project; these transactions include expenditure items, requisitions, purchase orders, supplier invoices, and billing events (contract projects).

You can only copy from templates which are effective as of the current date.

Prerequisites

- ☐ Set up your Project Templates. See: Creating a Project Template: page 2 – 29.

► To create a new project from a template or an existing project:

1. Navigate to the Projects window.
2. In the Find Projects window, enter your search criteria to find the template the or project that you want to copy.
3. Choose the template or project that you want to copy in the Project, Templates Summary window. Choose Open if you want to review the template or project before you copy it.
4. Choose the Copy To button to copy the selected template or project definition to your new project
5. In the Project Quick Entry window, enter values for the required fields and any appropriate optional fields.

When copying from existing projects, Oracle Projects prompts you to enter the Quick Entry fields associated with the source template of that project.

When entering dates, such as Start Date and End Date, in the Quick Entry window, you must either use the format

dd-mm-yy or dd-mm-yyyy, or select the date from the pull-down calendar.

6. Choose OK.
7. Modify the new project definition if necessary. See: Project and Task Options: page 2 – 40.

See Also

Project Templates: page 2 – 16

Agreement Templates: page 8 – 19

Quick Entry: page 2 – 18

Using Project Templates and Quick Entry: page 2 – 20

Copying Budgets from a Project Template or Existing Project: page 3 – 26

Project Status of a New Project

When you create a project from a template or another project, the status of the new project you create is determined as follows:

- If the status of the existing project or template is a valid starting status, then its project status is copied to the new project.
- If the status of the existing project or template is *not* a valid starting status, then the default starting status for the project's project type is the starting status of the new project.

See: Project Types: page 17 – 196.

Changing the Project Type of a Project

You can change the project type of a project if the following requirements are met:

- The new project type belongs to the same project type class as the current project type.
- The project does not have any cost distribution lines.

- The project does not have any draft revenue or draft invoice items.

If the new project type's cost burden schedule differs from that of the project type you are changing from, the following update will take place:

- If any tasks exist with a cost burden schedule matching the cost burden schedule of the project type before the change, those tasks will be updated to use the cost burden schedule of the new project type.

► **To change the project type:**

1. Navigate to the Project, Templates window for the project.
2. Select the new project type.
3. Save the change. (If you do not save the change now, the tasks will be locked until you either save or cancel the change.)

Projects Entered in External Systems

When a project was originally entered in a system outside of Oracle Projects, two fields are displayed to give you information about the project and its tasks:

- **Product Source:** The name of the external system where the project or task was originally entered.
- **Source Reference:** The unique identifier of the project or task in the external system.

These fields are displayed in the following windows:

- Projects
- Tasks
- Find Projects
- Find Tasks
- Project Status Inquiry

See: Activity Management Gateway: page 14 – 2.

Deleting a Project

Typically, you want to delete a project if you mistakenly create it, or use the wrong template.

You cannot delete a project if you have performed any of the following for that project:

- Charged transactions
- Baselined a budget
- Allocated funding (for contract projects)
- Created billing events (for contract projects)

If you cannot delete the project from the system due to the constraints above, you can disable the project by preventing future charges to it.

► **To delete a project:**

- Navigate to the Projects window, find the project you want to delete, and choose Edit, Delete Row from the menu or the toolbar.

► **To disable a project you cannot delete:**

1. Transfer all transactions to a new project. See: Transferring Expenditure Items: page 4 – 55.
2. Change the project status or the start and completion dates to prevent new charges to the project. See: Project Statuses: page 17 – 183.
3. Close the project to prevent new charges, and to prevent revenue accrual and invoicing for the project.



Attention: You must process any revenue and invoices for the project before you can close the project.

Entering Tasks (WBS) for a Project

When you create a project from a project template or an existing project, Oracle Projects copies the work breakdown structure from the source project or template. When you create a project template, Oracle Project automatically creates one default task. You may want to alter this structure by creating a new top task to begin a new branch of the work breakdown structure, or by creating additional subtasks under an existing task.

Ensure that your task numbering method accurately reflects an organized WBS. See: Setting Up a Project Work Breakdown Structure (WBS): page 2 – 2.

You cannot create subtasks for a task that has any of the following:

- Transactions charged to it
- Budget amounts (and the task is not a top task)
- Transaction controls
- Burden schedule overrides
- Any billing overrides (for contract projects)
- Asset assignments (and the task is not a top task) (for capital projects)

► **To create a new task:**

1. Navigate to the Projects window.
2. Find the project template or project for which you want to enter a task and choose Open.
3. Select the Tasks option from the Project options in the Projects, Template window.
4. If you have enabled the profile option PA_DISPLAY_FIND_TASKS, the Tasks option will display the Find Tasks window. You can search for tasks in your project by Task Number, Task Name, Task Manager, Organization, Service Type, and WBS Level. Oracle Projects will display any task meeting the search criteria as well as all parent tasks leading back to the original top task. If you have not enabled the profile option, you can view this window by choosing the Find button or Query, Find.
5. In the Tasks window, do one of the following:
 - If you want to create a new top task, select a top task and choose Create Peer Task
 - If you want to create a new child task, select the task for which you want to create a child task and choose Create Subtask
 - If you want to create a peer task, select a task for which you want to create the peer task, or choose Edit, New Record from the menu to create a new record
6. Enter the basic task information, including task number, task name, and task description. Update any of the task details that default for the task if necessary. See: Tasks Window Reference: page 2 – 11.

7. Create additional top tasks or subtasks if necessary.
8. Create any task options as required for your project. See: Project and Task Options: page 2 – 40.

► **To review or change task details:**

- In the Tasks window, choose the task you want to review or change. Choose Options to display the Task Options. Choose Task Detail in the Task Options window. Edit your task detail information.

► **To change the parent of a task:**

- You cannot directly change the parent of a task to another task. You must create a new task under the new parent task and delete the old task under the old parent task. If you cannot delete the task, then update the task to not allow charges to prevent future charges to that task. If the old task has transactions charged to it, you may want to transfer the transactions to the new task.

See Also

Setting Up a Project Work Breakdown Structure (WBS): page 2 – 2

Control Functions by Projects and Tasks: page 2 – 5

Tasks Window Reference: page 2 – 11

Project and Task Options: page 2 – 40

Transaction Controls: page 4 – 62

Transferring Expenditure Items: page 4 – 55

Deleting a Task

You cannot delete a task if you have performed any of the following transaction on the task or any of its subtasks:

- Charged transactions
- Entered a budget amount

- Allocated funding (applies to top tasks)
- Created billing events (applies to top tasks) (for contract projects)

You cannot delete the only task on the project. Each project must have at least one task.

► **To delete a task:**

- Navigate to the Projects window, find the project whose task you want to delete. From the Tasks window, select the task you want to delete and choose Edit, Delete Row from the menu or the toolbar.

Project and Task Options

Options

Option Name

Tasks

Classifications

Cross Charge

Key Members

Organization Overrides

Resource List Assignments

Transaction Controls

+ Burden Multipliers

Detail

You specify project and task options to control how Oracle Projects processes your projects. The options are available at various levels of the project and work breakdown structure (WBS). Use the Projects and Tasks windows to specify project and task options.

You can control which options are available for project entry based on the project options that you define for your project templates.

Available Options

You can choose from the following project and task options:

Level at which entry is allowed				
Project/Task Options	Project	Top Task	Mid Task	Lowest Task
Classifications: page 2 – 42	X			
Customers and Contacts: page 2 – 43	X			
Cross Charge Setup: page 2 – 45	X	X (Default)	X (Default)	X

Table 2 – 13 (Page 1 of 2)

Project/Task Options	Project	Top Task	Mid Task	Lowest Task
Key Members: page 2 – 46	X			
Organization Overrides: page 2 – 47	X			
Resource List Assignments: page 2 – 48	X			
Transaction Controls: page 4 – 62	X			X
Burden Multipliers				
Costing Burden Schedule: page 2 – 49	X (Default)	X (Default)	X (Default)	X
Burden Schedule Overrides: page 2 – 50	X			X
Asset Information	(Capital Projects only)			
Assets: page 2 – 50	X			
Asset Assignments: page 2 – 51	X	X		X
Billing Information	(Contract Projects only)			
Billing Setup: page 2 – 51	X			
Billing Assignments: page 2 – 55	X	X		
Credit Receivers: page 2 – 55	X			
Bill Rates and Overrides	(Contract Projects only)			
Standard Billing Schedules: page 2 – 56	X (Default)	X (Default)	X (Default)	X
Employee Bill Rate Overrides: page 2 – 57	X			X
Job Bill Rate Overrides: page 2 – 58	X			X
Labor Multipliers: page 2 – 59	X			X
Job Assignment Overrides: page 2 – 60	X			X
Job Billing Title Overrides: page 2 – 61	X			X
Non-Labor Bill Rate Overrides: page 2 – 62	X			X

Table 2 – 13 (Page 2 of 2)

Using Effective Dates to Enable or Disable Options

Oracle Projects allows you to specify when the various project options take effect using effective dates. For example, leave the Effective To field blank to specify that the option is effective indefinitely. Instead of deleting an option, disable it by changing the effective dates, so you can maintain the audit trail.

The default effective start date of the option is the start date of the project. If the project start date is blank, the default effective start date of the option is the system date. The same applies to task start dates and task level option effective start dates.

Percent Completion

Oracle Projects provides the ability to enter a percent complete amount for each task as of a given date. See: Percent Complete: page 2 – 71.

See Also

Entering Project and Task Options: page 2 – 62

Specifying Project and Task Options for a Template: page 2 – 28

Project Classifications

When specifying project classifications, you choose the class category for your project, then select one or more class codes for the class category. For example, you can specify a class category of Funding Source, and assign a class code of Federal to indicate project funding by a federal agency. You define class categories and codes when you set up project classifications.

You can specify classifications at the project level only.

See Also

Defining Project Classifications: page 17 – 186

Customers and Contacts

You can specify the revenue and billing contribution of a paying customer for project work, define the relationship of a customer to this project, and enter other information about this project's customer. The customer you choose must be an active customer in the Oracle Receivables database.

You must enter at least one customer on a contract project to fund the project, accrue revenue, invoice the customer. The contribution percentage must sum to 100%.

You enter project customer and contact information at the project level only.

Project Customers Window

You enter the following customer and contact information in the Project Customers window:

Project Customers

Name/Number: You can choose any active customer in the Oracle Receivables customer database.

Relationship: The relationship between this customer and your project, such as Primary, or Non-Paying.

Contribution: The percentage of this project's revenue and billing you expect this customer to contribute. If you enter more than one customer for this project, the total customer contributions towards revenue and billing must sum to 100% before you can accrue revenue or bill invoices against this project.

Bill Site: An address where you want to send this customer's invoices. You can choose any active billing address defined for this customer in the Oracle Receivables database. You need to enter a bill site for any customer whose contribution is greater than zero percent.

Work Site: An address where work will be performed for this project. You can choose any active ship-to address defined for this customer in the Oracle Receivables database. You need to enter a work site for any customer having a billing contribution greater than zero percent.

Bill Another Project

Bill another Project: Select if you want to identify a project as a provider project for purposes of inter-project billing. The check box is available only if the current operating unit is a provider operating unit and the project customer is associated with a receiver operating unit.

Receiver Project / Receiver Task: Enter the numbers of the projects and tasks that will receive the work performed on this project. Valid receiver projects and tasks belong to receiver operating units that have identified the current operating unit as a provider operating unit. You can change the receiver project and task information at any time before you create billing transactions for this project.

Invoice Currency

If you want to invoice the project customer in a currency different from the project currency, you can enter the following invoice currency information (currency attributes):

You can override these currency attributes in the Invoice Review windows before releasing an invoice.

Allow Rate Type "User": Enable this option if you want to allow the rate type "User" for invoicing this project customer.

Code: The default invoice currency code for the customer.

Rate Date: The default exchange rate date. If this field is left blank, the system will use the Bill Through date for the exchange rate date.

Rate Type: The default rate type.

Exchange Rate: The default currency exchange rate. You can enter a value only if the Rate Type is *User*.

Contacts

Type: A contact type, such as Billing or Shipping to identify a contact. You need to enter a billing contact for each paying customer on a contract project. You can enter only one billing contact for each customer associated with this project. The billing contact in Oracle Projects becomes the billing contact for contract projects' invoices interfaced to Oracle Receivables.

Name: You can choose any active contact name defined for this customer in the Oracle Receivables database.

Job Title: The job title of the contact.

See Also

Defining Project Customer Relationships: page 17 – 193

Defining Contact Types: page 17 – 194

Cross Charge Setup

This set of options enables you to enter default currency attributes for a project or lowest task. In this window, you also specify whether the project or lowest task allows charges from other operating units.

Cross Charge Setup Window

You can enter the following information in the Cross Charge Setup window:

Project Currency Attributes

The Project Currency Attributes are default values, and entry is optional. The attributes you select are displayed as the defaults during expenditure entry, and are used as defaults for imported transactions.

You can enter project currency attributes for the project template, then optionally override the values for the project and /or task. During project and task setup, the values you enter are copied to all the underlying tasks in the project work breakdown structure.

The hierarchy Projects uses for the defaults is shown below:

1. Value entered for the task
2. Value entered for the project
3. Value entered in the currency implementation options. See: Currency Implementation Options: page 17 – 60.

Default Project Rate Type: Choose a rate type. You select from the list of Conversion Rate Types, which are entered in General Ledger. See: Defining Conversion Rate Types *General Ledger User's Guide*.

Default Project Rate Date: Enter a rate date.

For more information, see: Currency Conversion Attributes for Entered Transactions: page 4 – 59 or Currency Conversion Attributes for Imported Transactions: page 14 – 21.

Cross-Charge

Allow charges from other operating units: Choose this check box if you want the project to allow charges from other operating units. Your entry creates a default value at the project level and at all task levels other than lowest task.

Key Members

Key members are employees who are assigned a role on the project. You assign employees as key members who need access to:

- Enter or maintain project data in Oracle Projects
- View project expenditure information

You control users' ability to view project labor costs when you set up project role types.

Key members are a part of the project-based security in Oracle Projects. Key members can view project expenditure detail transactions and update project information on any project to which they are assigned.

You can also enter key members for reporting purposes to distribute project reports easily to all responsible parties.

You do not need to assign each employee who is doing work on the project as a key member.

Oracle Projects requires that you enter a project manager for every project. You can only have one project manager at any given point in time; you can change the project manager over a period of time.

An employee can be assigned to more than one role on a project.

You enter key members at the project level only.

Key Members Window

You can enter the following key member information in the Key Member window:

Employee Name/Number: The name and number of the key member.

Role: The role of the key member, such as Project Manager.

Effective From and To Dates: The date range this is effective. Leave the To Date blank if you want the key member to be active for this project indefinitely. To change a current key member's role, you must enter an

end date to the employee's current role. On a new line, you can enter the employee's new role.

See Also

Project Role Types: page 17 – 191

Project–Based Security in Oracle Projects: page 15 – 13

Organization Overrides

You can reassign an employee's, or an entire organization's, costs and revenue to a different organization for a particular project. You can override all of the costs and revenue of an employee or organization, or you can redirect costs and revenue to another organization only for the expenditure categories you specify.

When you enter an organization distribution override, the new organization you enter overrides the expenditure organization Oracle Projects uses in AutoAccounting and to determine the organization to use for burdening.

For AutoAccounting processing, if an organization distribution override exists, the destination organization of the override is substituted for the actual expenditure organization of affected items.

Organization Overrides Window

You can enter the following information in the Organization Overrides window:

Source Organization: Enter the source organization whose costs and revenue you want to assign to a different organization.

Employee Name/Number: Enter the name and number of the employee for this project whose costs and revenue you want to assign to a different organization.

Expenditure Category: The expenditure category for the costs you want to assign to a different organization.

Destination Organization: The new organization to which you want to reassign costs and revenue.

Resource List Assignments

You assign resource lists to a project to indicate which resource lists you want to use for summarizing project actual amounts for project status tracking. When you open the Resource List Assignments window for a project, Oracle Projects automatically displays the default resource list assignment from the project type, and you can enter additional assignments if necessary. Note that you can choose only one assignment as the drilldown default.

Resource List Assignments Window

You can enter the following information in the Default Resource List Assignment window:

Resource List: Choose the resource list you want to assign to this project. The resource list defaults from the project type.

Use: Indicates the purpose or use of the resource list, such as Status Reporting. Oracle Projects determines this value after you use a resource list in a budget.

Drilldown Default: Choose this check box if you want to automatically drilldown by resource list for project status tracking. If you enter additional assignments, only one assignment can be the drilldown default.

See Also

Resources and Resource Lists: page 17 – 174

Project Status Tracking: page 9 – 1

Summarizing Actuals and Commitments by Resource: page 9 – 20

Transaction Controls

You can use transaction controls to configure your projects and tasks to allow only charges that you expect or plan. You can also define what items are billable and non-billable on your projects.

You can configure transaction controls by the following:

- Expenditure Category
- Expenditure Type
- Employee
- Non-Labor Resource

See Also

Transaction Controls: page 4 – 62

Transaction Control Extensions: page 19 – 22

Costing Burden Schedules

You must specify a cost burden schedule if you specify that a project type is burdened. The costing burden schedule defaults from the project type.

To enter Costing Burden Schedules, you must select and expand Burden Multipliers from the list of options in the Projects, Templates window.

Cost Burden Schedules Window

You can enter the following information in the Costing Burden Schedules window:

Burden Schedule: Enter the burden schedule you want to use for this project or task.

Fixed Date: Enter a fixed date for the burden schedule if you want all expenditure items to be burdened with the multipliers in effect as of that date.

See Also

Assigning Standard Burden Schedules: page 5 – 25

Burden Schedule Overrides

You can override the standard burden schedule assigned to a task. When you enter a schedule override, you essentially create a new schedule containing revisions of negotiated multipliers for this task. Remember to compile your schedule before you use it for processing purposes.

You can override cost burden schedules only if the project type for this project allows overrides.

See Also

Burden Schedules: page 17 – 117

Override Burden Schedules: page 5 – 27

Assets

For a capital project, you define CIP assets that you plan to build during the course of the project work. You enter the asset information that Oracle Projects interfaces to Oracle Assets for capitalized asset lines.

You can enter asset information for the capital project in the Assets window. See: Assets Window Reference: page 7 – 13.

To enter asset information in the Assets window, you must select and expand Asset Information from the list of options in the Projects, Templates window.

See Also

Defining Assets: page 7 – 12

Placing an Asset in Service: page 7 – 22

Asset Assignments

For a capital project, you assign an asset to the project level or to several tasks to easily associate the CIP costs incurred on the task(s) to an asset that is being built. You can assign an asset at the project, top task, or lowest task level.

You must enter the Asset Name you want to assign to the project or task, and specify whether you want to use a Grouping Level for Specific Assets or Common Costs. See: Assigning Assets to Grouping Levels: page 7 – 17.

To enter asset assignments in the Asset Assignments window, you must select and expand Asset Information from the list of options in the Projects, Templates window.

See Also

Use Grouping Levels to Summarize Asset Costs: page 7 – 16

Billing Setup

To enter billing setup information in the Billing Setup window, you must select and expand Billing Information from the list of options.

Revenue and Billing Information

Revenue and Billing Information

Distribution Rule: **Cost/Event**

Billing Cycle: **Billing cycle days : 28**

First Bill Offset Days: **7**

Next Billing Date: **28/JUN/1997**

Output Tax code:

Invoice Comment:

Invoice Formats

Labor: **Job**

Non Labor: **Expenditure Type**

Retention

Format:

Percentage:

Output Tax Code:

When you enter revenue and billing information for your project, you specify the following information:

- a revenue distribution rule that determines
 - the revenue accrual method for this project, and
 - the billing method for this project
- invoice formats
- bill cycle days
- other invoicing information

Distribution Rule

The project type determines which revenue distribution rule appears as the default value for this field. It also determines which other revenue distribution rules you can choose from. Oracle Projects predefines the following revenue distribution rules:

Cost/Cost	Accrue revenue and bill using the ratio of actual cost to budgeted cost (percent spent).
Cost/Event	Accrue revenue using the ratio of actual cost to budgeted cost (percent spent), and bill based on events.
Cost/Work	Accrue revenue using the ratio of actual cost to budgeted cost (percent spent), and bill as work occurs.
Event/Event	Accrue revenue and bill based on events.

Event/Work	Accrue revenue based on events, and bill as work occurs.
Work/Event	Accrue revenue as work occurs, and bill based on events.
Work/Work	Accrue revenue and bill as work occurs.

The revenue distribution rule you enter determines how revenue is calculated and how bills are generated for this project.

If you want to accrue revenue or generate invoices based on percent complete, you must use the Event / Event, Event / Work, or Work / Event revenue distribution rule. See: Percent Complete Revenue Accrual and Invoice Generation: page 8 – 75.

Billing Cycle

The billing cycle is the user-defined code that determines the next billing date for this project. You can accept the default cycle, or you can override this value and enter a different code. See: Billing Cycle: page 17 – 130.

First Bill Offset Days

The number of days that elapse between the project start date and the date of the project's first invoice. You can accept the default bill offset days, or override this value and enter a different number.

Next Billing Date

Next Billing Date displays the next billing date on which the project is eligible for billing. The Next Billing Date is updated each time draft invoices for the project are released, cancelled, or deleted.

Output Tax Code

Enter the default tax code for invoice lines created for this project.

This output tax code is used as a default tax code for invoice lines, depending on the tax default hierarchy you have set up. See: Tax Defaults: page 17 – 68.

Invoice Formats

You can enter invoice formats for this project's invoices. You should define values for these fields if you use as work occurs billing.

Labor

You can enter a format for grouping labor items on this project's labor invoice lines. You can accept the default format for this project type, or you can override this value and enter a preferred format.

Non-Labor

You can enter a format for grouping non-labor items on this project's non-labor invoice lines. You can accept the default format for this project type, or you can override this value and enter a preferred format.

Retention

You can enter a retention invoice format and a retention percentage for this project.

Format

Enter a format for this project's retention invoice line description. If you do not use retention for this project, leave this field blank.

When you are ready to bill the retained amount as an event, clear this field.

Percentage

Enter the percentage amount that you want to retain from invoices. If you do not use retention for this project, leave this field blank.

When you are ready to bill the retained amount as an event, clear this field.

Output Tax Code

Enter the default tax code for retention invoice lines created for this project.

This output tax code is used as a default tax code for invoice lines, depending on the tax default hierarchy you have set up. See: Tax Defaults: page 17 – 68.

Billing Assignments

Use the Billing Assignments option to assign billing extensions to automatically create revenue or billing events. You can assign billing extensions at the project or top task level only.

Billing Assignments Window

To enter billing assignments, you must select and expand Billing Information from the list of options in the Projects, Templates window. When you choose this option, you can enter the following information in the Billing Assignments window:

Name: Enter the name of the billing extension you want to use.

Amount: Enter the amount.

Percent: Enter the percent amount.

Active: Choose whether to enable this extension.

Credit Receivers

You can indicate which employees receive credit for a project. You can assign as many employees as you want to a particular credit type, as long as the total percent of credit allocated totals 100 percent. You can also assign one employee to as many types of credit as you want.

Depending on your configuration of Oracle Projects, you can either interface sales credit information to Oracle Receivables for project invoices, or use credit receivers in Oracle Projects for reporting purposes. If you want Receivables to validate salesperson and sales credit information you interface from Oracle Projects, you need to enable the *Allow Sales Credits* option in the Receivables Invoice Sources window for the predefined batch source of *PROJECTS INVOICES*. To verify that this option has been set correctly, navigate to the Oracle Projects Implementation Options window and view the options under Billing. *PROJECTS INVOICES* should appear in the Invoice Batch Source field.

Credit Receivers Window

To enter credit receivers, you must select and expand Billing Information from the list of options in the Projects, Templates window. When you enter credit receivers, you specify the following:

Credit type: Enter a credit type, such as Quota Credit. If your installation of Oracle Projects is configured to interface sales credit information to Oracle Receivables, then the credit type is validated against sales credit types in Oracle Order Management. If Oracle Projects is not configured to interface sales credit information, this field is validated against credit types in Oracle Projects.

Employee: The employee you enter must be defined as a salesperson in Oracle Receivables to receive sales credit; the employee name and the salesperson name must match exactly.

Credit %: The amount of credit an employee receives for this credit type. The total percent amount for this credit type assigned to all employees for this project or task must equal 100 percent.

Interface to AR: Choose whether you want to interface the sales credit information to Oracle Receivables.

Effective From/To: Enter the date range the credit receiver is effective.

See Also

Defining Salespersons and Credit Types *Oracle Receivables User's Guide*

Standard Billing Schedules

You can enter standard burden schedules or standard bill rate schedules for a project only if the project uses burden schedule types or bill rate schedule types for labor or non-labor billing. The standard billing schedule defaults from the project type.

► To enter a standard billing schedule:

1. Select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window
2. If you want to enter a Labor or Non-Labor billing schedule, you must choose whether to use a Bill Rate Schedule or a Burden Schedule.
3. If you want to enter a **Bill Rate Schedule**, enter the Organization, Schedule Name, Fixed Date, and Discount %.

4. If you want to use a **Burden Rate Schedule**, you can enter a Revenue and / or Invoice for this project. Enter the Fixed Date you want to freeze the schedule. When you enter a fixed date, Oracle Projects uses the burden multipliers effective as of the fixed date for this project. If you want to use the most current rates in the burden schedule for this project, leave this field blank. You can enter a fixed date for firm schedules only.
5. Save your work.

See Also

Bill Rate Schedules: page 17 – 137

Burden Schedules: page 17 – 117

Employee Bill Rate Overrides

You can override an employee's standard bill rate for a project or task. When you override an employee's standard bill rate, the new bill rate becomes the bill rate for the employee's billing.

To enter employee bill rate overrides, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window.

Discounts that you enter in the standard bill rate schedule for the project are not applied to employee bill rate overrides.

When you override an employee's bill rate, the new employee bill rate takes precedence over the following override you can define at the project level:

- Job bill rate override

In addition, the new employee bill rate takes precedence over the following information you can define at the task level:

- Job bill rate override
- Standard bill rate schedule
- Labor multiplier

Employee Bill Rate Overrides Window

To enter employee bill rate overrides, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. When you enter employee bill rate overrides, you specify the following:

Employee Name/Number: Enter the name or number of the employee whose bill rate you want to override.

Rate: Enter the new bill rate you want to use.

Effective From/To: Enter the date range the rate is effective.

See Also

Bill Rate Precedence for Labor: page 8 – 31

Job Bill Rate Overrides

You can override a job's standard bill rate for a project or lowest task. When you override a job's standard bill rate, the new job bill rate becomes the job's bill rate for this project or lowest task.

Discounts that you enter in the standard bill rate schedule for the project / task are not applied to job bill rate overrides.

When you override a job's bill rate, the new job bill rate takes precedence over standard bill rates and labor multipliers you assign to this task. In addition the override takes precedence over any project job bill rate override.

Job Bill Rate Overrides Window

To enter job bill rate overrides, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. When you enter job bill rate overrides, you specify the following:

Job Name: Enter the name of the job whose bill rate you want to override.

Rate: Enter the new bill rate you want to use.

Effective From/To: Enter the date range the rate is effective.

See Also

Bill Rate Precedence for Labor: page 8 – 31

Labor Multipliers

You use labor multipliers when you want to apply only one multiplier to raw labor cost for billing purposes. If you need to apply many multipliers to the raw cost for billing, use burden schedules or burden schedule overrides for revenue and invoicing to record the appropriate multipliers. You can also use labor multipliers with standard burden schedules as explained below.

Oracle Projects calculates the revenue or bill amounts (or both) for this task's labor items using the following formula for items based on bill rate schedules:

<i>Revenue or Bill Amounts</i>	=	<i>(Labor Multiplier × Raw Cost)</i>

Oracle Projects calculates the revenue or bill amounts (or both) for this task's labor items using the following formula for items based on burden schedules:

<i>Revenue or Bill Amounts</i>	=	<i>Burdened Amount × (1 + Labor Multiplier)</i>

If no override revenue or invoice burden schedules exist, Oracle Projects uses the multiplier on top of the standard revenue and invoice burden schedule. Following is an example of use of the labor multiplier:

Labor Raw Cost	1,000
Standard Multiplier (1.5)	<u>1,500</u> (from standard burden schedule)
Total Burdened Labor	2,500
Negotiated Multiplier (1.0)	<u>2,500</u> (from labor multiplier)
Final Burdened Labor	5,000

Non-Labor Schedule

You can override a non-labor standard bill rate for non-labor expenditure types and non-labor resources.

When you override a usage expenditure type, the override applies to all non-labor resources within that usage expenditure type.

When you override a non-labor resource within a usage expenditure type, the override applies to that particular non-labor resource only, and does not apply to other non-labor resources within that usage expenditure type.

Any non-labor bill rate override you enter takes precedence over non-labor bill rates or markups from your task's standard non-labor bill rate schedules.

Any non-labor bill rate override you enter for this task takes precedence over any project non-labor bill rate override.

Labor Multipliers Window

To enter labor multipliers, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. You specify the following information for this option:

Multiplier: Enter the labor multiplier you want to use for this project or lowest task.

Effective From/To: Enter the date range the labor multiplier is effective.

See Also

Bill Rate Precedence for Labor: page 8 – 31

Job Assignment Overrides

You can override both an employee's job assignment and an employee's billing title for this project or lowest level task.

When you override an employee's job assignment, the new job assignment determines bill rates for the employee's billing on this project or lowest task (if this task uses job bill rates). You can choose any active job in the Oracle Applications database.

When you override an employee's primary billing title, the new billing title appears on future invoices for this employee's billing (if this project's labor invoice format displays an employee billing title).

Any job assignment override you enter for this project or lowest task takes precedence over any project job assignment override.

Job Assignment Overrides Window

To override job assignments, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. You specify the following information for this option:

Employee Name/Number: Enter the employee whose job or billing title you want to override.

Job Override: Enter the employee's new job assignment.

Billing Title Override: Enter the employee's new billing title.

Effective From/To: Enter the date range this override is effective.

See Also

Employees and Employee Assignments: page 17 – 51

Bill Rate Precedence for Labor: page 8 – 31

Job Billing Title Overrides

You can override a job's billing title for a project or lowest task. When you override a job's billing title, the new job billing title appears on future invoices for this job's billing on the project or lowest task (if this project's labor invoice format displays a job billing title).

Job Bill Title Overrides Window

To override job billing titles, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. You specify the following information for this option:

Job: Enter the job whose billing title you want to override.

Billing Title Override: Enter the job's new billing title.

Effective From/To: Enter the date range this override is effective.

See Also

Job Titles: page 17 – 49

Bill Rate Precedence for Labor: page 8 – 31

Non-Labor Bill Rate Overrides

You can override a non-labor standard bill rate.

Non-Labor Bill Rate Overrides Window

To override non-labor bill rates, you must select and expand Bill Rates and Overrides from the list of options in the Projects, Templates window. You specify the following information for this option:

Expenditure Type: Enter the expenditure type.

Non-Labor Resource: Enter the non-labor resource whose bill rate you want to override.

Rate: Enter the new non-labor bill rate.

Markup %: Enter the percentage of markup for this rate.

Effective From/To: Enter the date range this override is effective.

See Also

Bill Rate Precedence for Non-Labor: page 8 – 32

Entering Project and Task Options

► To enter a project or task option:

1. In the Projects window, find the project or task for which you want to enter one of the options and select the appropriate option.

For project level options, navigate to the Project, Template window, highlight the appropriate option, and choose Detail.

For task level options, navigate to the Tasks window, highlight the task for which you want to enter the option, and choose Options. The Task Options window appears. Select the option that you want to enter.

You can expand Burden Multipliers, Asset Information, Billing Information, and Bill Rates and Overrides from the list of options to access related options.

2. Enter the information for the option.
3. Save your work.

See Also

Available Options: page 2 – 40

Using Effective Dates to Enable and Disable Options: page 2 – 42

Mass Update Batches

Mass Update Batches (Vision Services: USD)

Name: **Mass Batch 1** Status: **Working**

Description: **Change Org to Consulting - East**

Attribute: **Organization**

Effective Date: **09/JAN/2001**

Rejection Reason:

Processed By:

Date:

[]

Generate Detail Lines

From Project

☐ Project Name

☐ Managed By Organization

Consulting-East

Tasks

☐ All

☐ None

☐ Same Organization

New Organization:

☒ Mark For Recalculation

Update **Submit** **Generate Lines** **Details**

Use the Mass Update Batches window to change the organization of multiple projects and tasks. The Mass Update window performs both of the following functions:

- Creates a batch for mass update of organization for projects and/or tasks.
- Initiates a process that updates the organization on all the projects and tasks specified in the batch. You can optionally mark expenditure items charged to the project or task for recalculation based on the new organization.

You can also run the update as a concurrent program by submitting a request to run the PRC: Process Mass Update Batches program.

Create Batch for Mass Update

You can use the following two methods, alone or in combination, to create a mass update batch:

- Generate lines for the batch based on selection criteria you enter.
- Enter each project and task.

► **To generate a mass update batch based on selection criteria:**

1. Navigate to the Mass Update Batches window.
2. Enter a Batch Name, Description, and Effective Date for the batch.
3. In the Generate Detail Lines region of the window, enter the selection criteria to select the projects and tasks you want to update. See: Mass Update Batches Window Reference: page 2 – 65.
4. Choose **Generate Detail Lines** to generate the mass update batch lines.
5. If you want to review and /or revise the mass update batch, choose **Details**. See: Batch Lines Window Reference: page 2 – 67.

► **To generate a mass update batch by entering each project and task:**

1. Navigate to the Mass Update Batches window.
2. Enter a Batch Name, Description, and Effective Date for the batch.
3. To enter batch lines in the Batch Lines window, choose **Details**.
4. For each batch line, enter a Project Name, Task Name (optional), New Value (new organization to be assigned), and Effective Date, and indicate whether the item should be marked for recalculation. See: Batch Lines Window Reference: page 2 – 67.

See Also

Organizations in Oracle Projects: page 15 – 42

Organizations Overview: page 17 – 35

Mass Update Batches Window Reference

Batch Name. Enter a unique name for the Mass Update Batch.

Description. Enter a unique, descriptive name for this batch.

Status. This field displays the status of the batch. It can have the following values:

- **Working.** The batch can be modified.
- **Submitted.** The batch has been submitted for update. You cannot change the batch.
- **Rejected.** The update process has rejected the batch. You can modify the batch to correct the errors, and resubmit the batch.
- **Completed.** All projects and tasks were updated successfully. You cannot modify the batch.
- **Processing.** The batch is currently being processed. You cannot modify the batch.

Attribute. The project and /or task attribute that you want to update. Currently, this field defaults to *Organization* and cannot be modified.

Effective Date. The date you enter in this field is used for two purposes:

- The date used to select expenditure items for recalculation
- The date when the batch will be eligible for processing

Rejection Reason. The reason that the batch was rejected. Following are the possible rejection reasons:

- *At least one detail line was rejected for this batch.*
- *Batch is not ready for processing due to the effective date.*
- *The batch is not in Submitted status.*
- *Internal SQL Error.*

Processed By. This field displays the name of the employee who last submitted the batch for update.

Processed Date. The date when the batch was last processed.

Descriptive Flexfield. Standard descriptive flexfield.

Generate Detail Lines Region

From Project. You can generate lines for a single project or a group of projects, depending on the criteria you enter:

- **Project Name.** A single project will be selected.

- **Managed By Organization.** All projects owned by the organization you enter will be selected.

Task. You can narrow the selection by entering task criteria:

- **All.** All of the tasks for selected projects will be selected.
- **None.** No tasks will be selected.
- **Same Organization.** Tasks owned by the same organization entered under Managed By Organization will be selected.

New Organization. The new organization that will be assigned during the update process. This field is required for processing a mass update batch.

Mark for Recalculation. If this check box is checked, the selected transactions will be marked for recalculation.

Buttons

Submit. Changes the status of the batch from *Working* to *Submitted*. When a batch is in Submitted status, you cannot modify it. You cannot submit a batch unless it contains at least one detail line.

Rework. Returns a submitted batch to *Working* status.

Update. Runs the Batch Process for Mass Update online. This button is active only if the status of the batch is *Submitted*.

Details. Displays the Batch Lines window.

Generate Detail Lines. Generates the mass update batch detail lines based on the criteria specified in the Generate Detail Lines region.

Batch Lines Window Reference

The Batch Lines window displays all the detail lines for the batch. Use this window to enter new detail lines, or to modify them after you have entered them or after you have automatically generated them.

If your batch has been rejected, you can use this window to view the rejection reason for each rejected line. You can then correct the data or uncheck the Update check box.

Project Name. The name of the project for which you want to update the organization. Each detail line in the batch must be a unique project/task combination.

Task Name. The name of the task for which you want to update the organization. If you want to update the organization on the project, leave this field blank.

Old Value. This field displays the current organization that owns the project or task.

New Value. The new organization you want to assign to the project or task.

Effective Date. The effective date of the line. This value will default to the Effective Date you entered for the batch. You can override the default value.

Update. This check box indicates if a line will be processed when you run the update process for the batch. You can update this check box only if you have the security to update the specified project.

Mark for Recalculation. This check box indicates if the expenditure lines associated with the project or task will be marked for recalculation. You can update this check box only if you have the security to mark expenditure items for cost and revenue recalculation. See: Function Security in Oracle Projects; page C – 2.

Rejected. This check box is checked if the line was rejected during the latest update process.

Rejection Reason. For rejected lines, the reason the current line was rejected during the last update process.

Processing a Mass Update Batch

You can process a mass update batch either online or as a concurrent program.

- **To run the Mass Update Batch process online:**
 1. Navigate to the Mass Update Batches window.
 2. Choose **Update**.

- **To run the Mass Update Batch process as a concurrent program:**
 1. Navigate to the Submit Request window.
 2. Select the **PRC: Process Mass Update Batches** process.

3. You can optionally select the batch that you wish to process. If you do not specify a batch, all eligible batches are processed.
4. Submit the process.

Mass Update Batch Verifications

For each detail line in the batch, the Mass Update Batch process performs the several verifications before processing the line. If a detail line fails any of the verifications, the Rejected check box is checked and a Rejection Reason can be viewed for the record.

Following are the verifications that the Mass Update Batch process performs:

1. Verify that the Update check box is checked.
2. Verify that the project status is not *Closed*.
3. Verify that the submitter of the process has security to update the project.
4. Verify that the change specified for the line is allowed. This check includes a call to the Verify Organization Change client extension.
5. Update the organization of the project or task.
6. If the Mark for Recalculation check box is checked for the line, the process marks the related expenditure items for recalculation.

Updates

After all the batch lines have been processed, if any error has occurred during the processing, none of the updates are processed and the batch status is set to *Rejected*.

If no error occurs during the process, the updates are processed and the batch status is set to *Completed*. The Processed By, Processed Date, and Rejection Reason fields of the batch are updated.

Processing Errors

The following errors can occur during the Mass Update Batch process:

1. **The batch must have *Submitted* status in order to be processed.**

This error can occur when the batch process is run as a concurrent program. It indicates that the status of the batch changed after the concurrent request was submitted.

Solution: Reset the batch status to *Submitted* and submit another request to process the batch.

2. **This user is not yet registered as an employee.**

The user who is running the batch process does not have an employee record. Contact your System Administrator to create an employee record for this use before continuing.

3. **You do not have permission to update this project.**

You do not have permission to update the specified project on a detail line.

4. **The new organization is not allowed to create projects or tasks for the given project type class.**

The new organization is invalid for the organization change, because it is not set up to own projects with the specified project's project type class.

Solution: Enter a valid organization for the line, or uncheck the Update check box for the line.

5. **Project/Task Organization cannot be changed due to costed items/revenues/invoices.**

The project/task organization of the project specified for the batch line cannot be changed because costed items, revenue, or invoices exist for the project or task.

6. User-defined error messages.

You can build business rules in the Verify Organization Change Extension to determine whether the organization change is allowed, and to define error messages when the rules are violated.

See Also

Verify Organization Change Extension: page 19 – 125

Process Mass Update Batches: page 11 – 60

Percent Complete

Percent Complete (Vision Services: USD)

Project Number

Project Name

Project Percent Complete

% Complete As of Date

Comment

Task Percent Complete

Number	Name	% Complete	As of Date	Comment
1.0	Scope Requirements	50	31/JAN/2001	
1.1	Market Research			
1.2	Document Requireme			
2.0	Design Project			

Use the Percent Complete window to enter the percent complete for a project or task. Percent completion information is used for revenue accrual and billing, and for reporting purposes. Oracle Projects does not calculate project or task percent completion, but uses the percent complete amounts that you enter.

The Percent Complete window includes the following features:

- You can maintain percent complete information at all levels of the work breakdown structure (WBS), including at the project level.
- Percent complete history is maintained by the system.

In addition, as part of the project management integration, an API (application program interface) is available to maintain percent complete information. The interface is named UPDATE_PROGRESS. See: Activity Management Gateway: page 14 – 2.

Percent complete entries can be used in billing extensions. See:
Designing Billing Extensions: page 19 – 71.

► **To enter percent complete:**

1. Navigate to the Percent Complete window.
2. Enter the Project Number or Project Name of the project for which you want to enter percent complete information. Choose Find. The window displays the WBS for the project with the most recent percent complete entries.
3. Enter the following fields for any level of the WBS:
 - **% Complete:** Enter the percent complete. Your entry cannot be less than zero or larger than 100.
 - **As of Date:** You can enter the date directly, or select from the list of values, which is displayed in calendar format with the current date selected.
 - **Comment:** Optionally enter a comment for this percent complete entry.
4. Save your work.

See Also

Revenue Accrual and Invoice Generation Based on Percent Complete:
page 8 – 75

CHAPTER

3

Budgets

This chapter describes how to manage budgets in Oracle Projects.

Overview of Project Budgets

A budget is the estimated cost or revenue for a project or task. You track project status and performance by comparing budgeted amounts to actuals using reports and Project Status Inquiry.

Project Budgeting Levels of Detail

You decide how to budget your project based on the level of detail you need to track. Each budget can have detailed or summary information in the following areas, as appropriate for each project.

- the WBS level at which you enter the budget
- whether the budget will be for the duration of the project or tasks, or time-phased by date range, GL period, PA Period
- whether you enter summary budget lines or budget lines categorized by resources
- which budget amounts you will enter for the budget. (For Cost Budgets, you can enter Quantity, Raw Cost, and Burdened Cost. For Revenue Budgets, you can enter Quantity and Revenue. Each Budget Entry Method may indicate user entry for some or all of the choices.)

The Budget Entry Method that you select when you enter a budget determines the level of detail for the budget in these four areas.

A more detailed budget allows you more detail in status tracking and exception analysis. A detailed budget requires more time and effort to plan, create, enter, and maintain the budget amounts, but can provide valuable insight into the status of your project.

Budgeting by Work Breakdown Structure

You can set up each budget for data entry at the following levels of your work breakdown structure:

- Project
- Top Task
- Lowest Task
- Top Tasks and Lowest Tasks

You can use this capability to set up different budget types at different levels of the work breakdown structure. For example, you may budget a detailed cost budget at the lowest task level, a summary cost budget at the project level, and a revenue budget at the project level.

If you select Top Tasks and Lowest Tasks, you can use a combination of top task and lowest tasks in the same budget. That is, you can set up some top tasks for budget entry at the top task level and other top tasks for budget entry at the lowest task level.

Adding to the Work Breakdown Structure After Budgets Are Entered

When you create budget lines for a top task that has no subtasks, the following rules govern whether you can subsequently create subtasks for that task:

- If the entry level for the budget is Lowest Task, the task is treated as a lowest task. Therefore, you **cannot** enter subtasks for the task.
- If the entry level for the budget is Top Task, the task is treated as a top task. Therefore, you **can** enter subtasks for the task.
- If the entry level for the budget is Top Tasks and Lowest Tasks, the task is treated as a top level task. Therefore, you **can** enter subtasks for the task.

Time–Phased Budgeting

You can enter a budget for the duration of the project or tasks (also known as *budget at completion*), or you can enter **time–phased** budgets which contain budget amounts by time period. You can enter time–phased budgets at the project, top task, or lowest task levels by organization and then by expenditure category within that organization.

The Budget Entry Method selected for each budget determines the duration of the budget. A time–phased budget can be delineated by one of the following time periods:

- **PA Periods:** Established Oracle Projects periods
- **GL Periods:** Established Oracle General Ledger periods
- **Date Range:** User-defined date ranges with any start and end dates.

When reporting to–date amounts for project status tracking, the system automatically spreads the amounts that you entered by

date range into PA periods using a straight line function based on the number of days in each PA period.

- **None (budget at completion)**

You can use different periods for different budget types. For example, you can keep a cost budget by PA Periods, a revenue budget by GL Periods, and a forecast cost budget for the duration of the project.

Start and End Dates for Non–Time–Phased Budgets

Before you can enter a non–time–phased budget, you must enter start and completion dates for the project and each task that will be budgeted. The start and end dates for the budget are automatically set to equal the start and completion dates of the project or task.

See Also

Summarizing To–Date Budget Amounts: page 9 – 13

Summary vs. Categorized Budget Amounts

You can budget by summary amounts or by detail budget lines categorized by resource.

Uncategorized Budget Amounts (Summary Amounts)

Uncategorized budget amounts are summary amounts you enter at the work breakdown structure level for your budget.

If budgets are entered in summary amounts, one budget line is entered for the project or for each budgeted task (depending on the Budget Entry Method selected for the budget). This line may summarize a combination of labor, expenses, usages, and other costs.

The figure in the **Quantity** column would be meaningless if it combined hours, miles, and currency amounts. Therefore, if budget lines are entered at the summary level, the UOM (unit of measure) displayed for the Quantity column is **Hours**, and you may enter the total hours, regardless of any miles or currency that comprise the cost or revenue figures you enter. (Similarly, the summary totals in the Quantity column for budget lines entered in detail show only the total hours, and disregard quantities of miles or currency amounts that may comprise the total cost or revenue.)

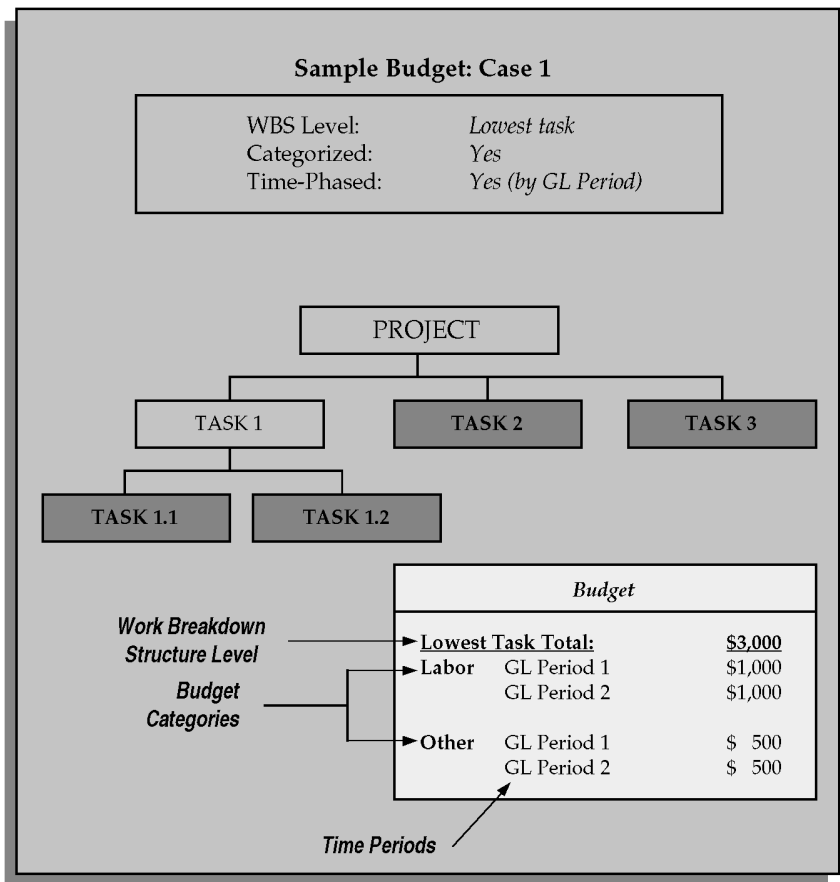
Categorized Budget Amounts (Detail Amounts)

Categorized budgets are tracked by **resource**. Resources are categories of expenditures – the labor, services, equipment, and other amounts needed to track, complete, and account for project work.

You can choose to budget by different resources for different kinds of projects. For example, you can budget labor by employee for small research and development projects, and by organization for large design projects. You can also budget different budget types using different resources.

You select the resources you want to use in your project budget from the resource list you choose when you enter the draft.

Examples of Budgets



Sample Budget: Case 2

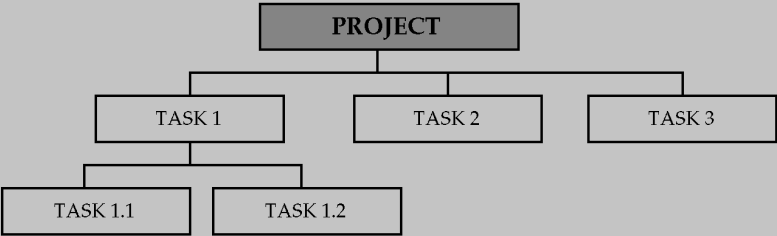
WBS Level: *Project*
Categorized: *No*
Time-Phased: *Yes (by PA Period)*

Work Breakdown Structure Level

Uncategorized

Budget	
<u>Project Total:</u>	<u>\$12,000</u>
PA Period 1	\$ 1,000
PA Period 2	\$ 1,000
PA Period 3	\$ 1,000
...	\$ 1,000
PA Period 12	\$ 1,000

Time Periods



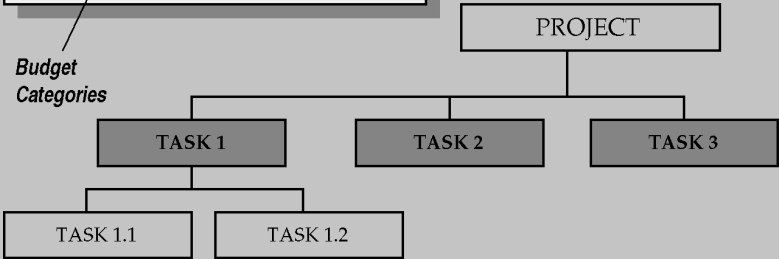
Sample Budget: Case 3

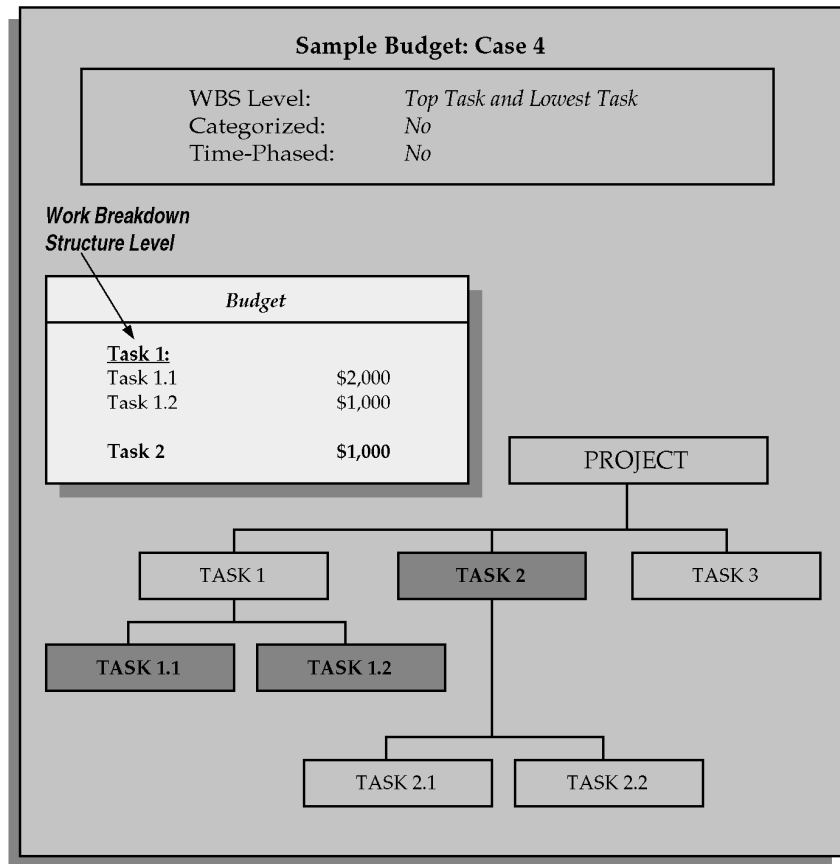
WBS Level: *Top Task*
Categorized: *Yes*
Time-Phased: *No*

*Work Breakdown
Structure Level*

Budget	
<u>Top Task Total:</u>	<u>\$4,000</u>
Labor	\$2,000
Expenses	\$1,000
Materials	\$1,000

*Budget
Categories*





See Also

Budget Entry: page 3 – 13

Define Budget Types: page 17 – 168

Budget Entry Methods: page 17 – 169

Resources and Resource Lists: page 17 – 174

Reviewing Project Status by Budget Type: page 9 – 6

Budget Security

Oracle Projects provides three levels of budget security:

- **Project Security**

Controls which projects a user can select for budgeting and whether the user can update a budget. See Project and Labor Cost Security in Oracle Projects: page 15 – 13.

- **Function Security and Budget Line Source Security**

- Function Security controls a user's access to functions based on the user's responsibility. See Function Security in Oracle Projects: page C – 2.
- Budget Line Source Security uses function security to control whether a user can update amounts in budget lines, based on the source of the amount.

The source of the amount can be an external system, a budget client extension, actual amounts (when the budget is created by copying actual amounts), or another budget version (when the budget is created by copying a budget version). See Budget Line Source Security: page 3 – 9.

- **Project Management Security**

Controls updating of budgets created by importing from external systems. See Project Management Controls: page 14 – 4.

Budget Line Source Security

Budget line source security controls whether a user can update amounts in budget lines, based on the source of the amount. This feature is implemented using function security.

You can specify limits on updating of budget amounts that were calculated by a budget calculation extension, amounts that were copied from actuals, or amounts copied from budget versions.

The following functions are used to control budget line source security:

- Budgets: Line Source: Burdened Cost Extn
- Budgets: Line Source: Copy Actual
- Budgets: Line Source: Copy Version
- Budgets: Line Source: Raw Cost Extn
- Budgets: Line Source: Revenue Extn

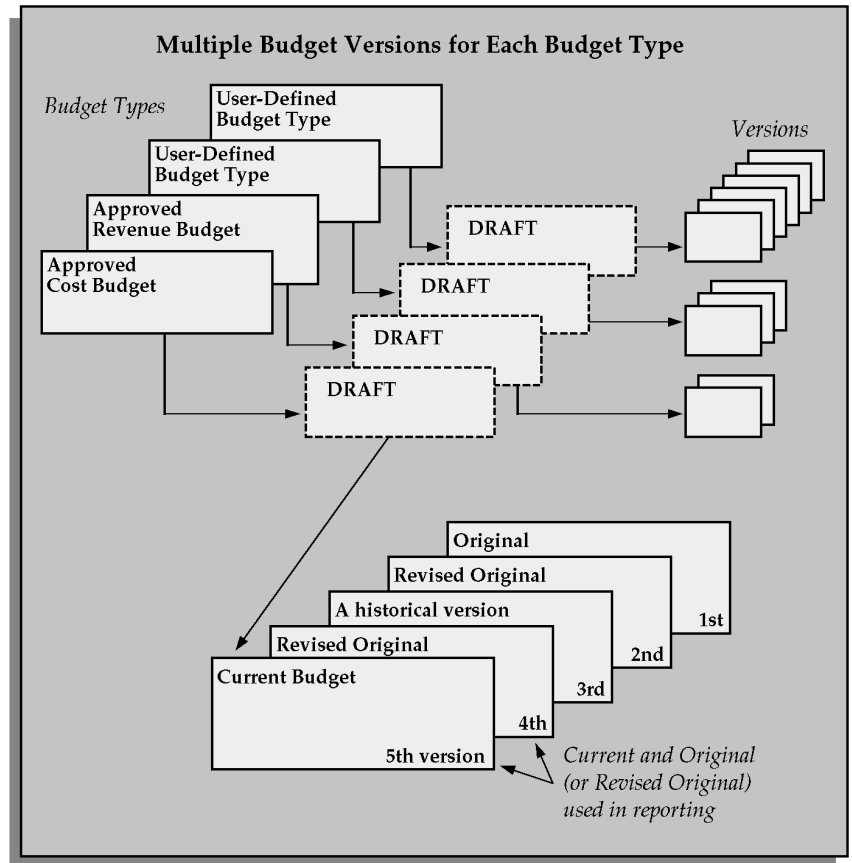
You can also control updating of budget amounts that were imported from external systems. See: Project Management Controls: page 14 – 4

Budget Versions and Draft Budget History

A project can have more than one budget. **Budget types** distinguish the different budgets that you enter for a project. For example, one budget type may identify the approved cost budget and another type may be the forecast cost budget. You must classify every project budget you enter by a budget type.

Oracle Projects maintains detailed budget history by retaining each **budget version** for each budget type, including summary and detail information.

Figure 3 – 1



Each budget has a **draft**, which is a working area for an in-process budget. The draft will not appear in any project status tracking inquiries or reports. (Note that *draft* is not a budget type, since any type of budget can have a draft.)

For each budget, you can create and save many budget versions. Each time you baseline a draft, you create a new version. To help identify budget versions, you can give each version a unique name and specify a change reason. You can view summary and detail information for all budget versions.

Each budget version has one of the following classifications:

- **Original Budget:** The first time you baseline a draft, the version is marked as the Original Budget.

- **Revised Original Budget:** You may need to revise your Original Budget due to budget entry errors or changes in the project scope. When you baseline a draft, you can identify the new baselined version as a Revised Original. In calculations and displays that use the Original Budget, the most recent Revised Original is used (or the Original Budget, if there is no Revised Original).
- **Current Budget:** The most recent baselined version of the budget is the Current Budget. You can have only one Current Budget for each budget type. Current Budget amounts are shown in the Project Status Inquiry window.
- **Historical Baselined Versions:** Any baselined budget that is not the Current Budget is considered an historical version of the budget.

The Current Budget and latest Original Budget figures are shown in the Project Status windows.

See Also

Defining Budget Types: page 17 – 168

Entering a Draft: page 3 – 15

Baselining a Draft: page 3 – 36

Revising a Baselined Budget: page 3 – 38

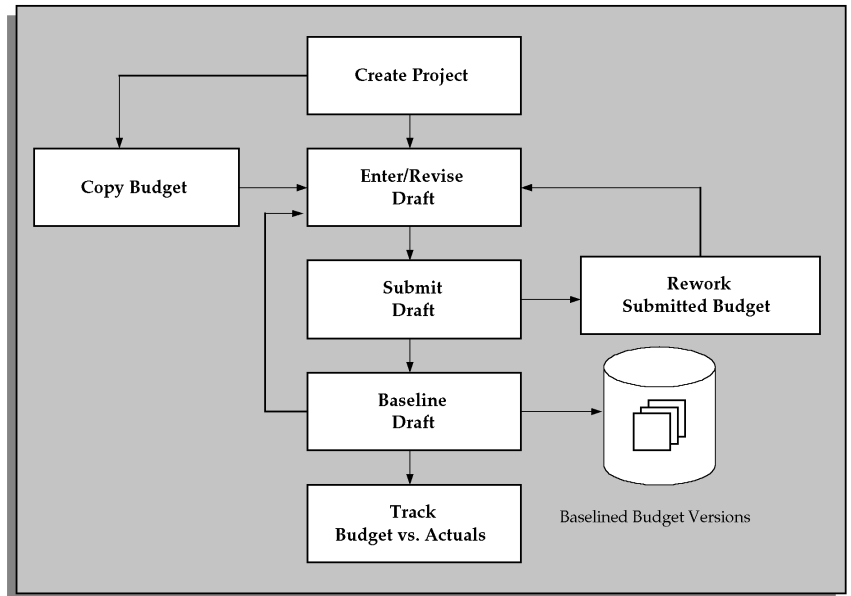
Revising an Original Budget: page 3 – 39

Reviewing Budget History: page 3 – 39

Budget Entry

Figure 3 – 2

Overview of the Budget Entry Process



► To create or revise budgets:

1. Create the project and WBS. When you define the project's work breakdown structure, consider how you want to track cost and revenue. See: Control Functions by Projects and Tasks: page 2 – 5.

The start and end dates for a non-time-phased budget are automatically set to equal the start and completion dates of the project or task. See: Start and End Dates for Non-Time-Phased Budgets: page 3 – 4

2. Enter or revise a draft budget for the project. See: Entering a Draft: page 3 – 15.
3. Enter budget amounts in the draft budget using any of the following methods:
 - When you first create the project you can copy the budget from the project template or project you are copying. See: Copying Budgets from a Project Template or Existing Project: page 3 – 26.
 - Enter the budget cost and /or revenue amounts directly. See: Entering Budget Lines: page 3 – 19.

- Enter the budget quantities and allow Oracle Projects to calculate the cost and/or revenue amounts for you. See: Calculating Budget Amounts: page 3 – 26.
 - Copy the budget from an earlier version of the project's budget (if you are revising a budget that you have previously baselined). See: Copying Budget Amounts from Earlier Budget Versions: page 3 – 29.
 - Copy the actual amounts to the budget amounts. See: Copying Actuals to Budget Amounts: page 3 – 29.
4. Submit your budget to indicate that budget entry is complete. See: Submitting a Draft: page 3 – 32.
 5. Baseline the budget. See: Baselining a Draft: page 3 – 36.
 6. Revise the current budget to reflect changes in the project or to correct data entry errors. See: Revising a Baselined Budget: page 3 – 38 and Revising an Original Budget: page 3 – 39.

See Also

Project Budgeting Detail Options: page 3 – 2

Budget History: page 3 – 10

Define Budget Types: page 17 – 168

Budget Entry Methods: page 17 – 169

Resources and Resource Lists: page 17 – 174

Entering a Budget Draft

Budgets (Vision Services: USD)

Find Budget

Project Number:

Project Name:

Budget Type:

Draft Budget

Version Name:

Status:

Change Reason:

Description: ☐ New Original

Entry Options

Entry Method:

Resource List:

Totals

— Labor —

	UOM	Quantity	Raw Cost	Burdened Cost	Revised Date
Draft	Hour	7,200.00	292,600.00	292,600.00	04/DEC/1997 14:06:28
Current	Hour	7,200.00	292,600.00	292,600.00	23/APR/1997 10:42:07

A budget draft is a holding area for budget data that is currently in process. You enter or revise the budget amounts for a project in a draft. The status for a draft is Working.

You cannot report against a draft or use it to compare budgeted to actual amounts.

You have a draft for each budget type used on the project.

Entering or Revising a Budget Draft

- **To enter or revise a budget draft:**
 1. **Budgets Window**

Navigate to the Budgets window. Choose the project for which you want to enter or revise budget amounts. You must enter a valid project number before you can enter a budget type.

2. **Budget Type**

After you have selected a valid project, the budget type field will be enabled.

Choose the budget type. The budget type field enables you to have more than one series of budgets for a project. The budget type determines whether the budget is a revenue budget or cost budget. See: Define Budget Types: page 17 – 168.

The list of values displays only active budget types. However, if a budget was created earlier for your project using a budget type that is now inactive, the inactive budget type can be entered.

3. **Find Draft**

Choose the Find Draft button.

If you select an inactive budget type and choose Find Draft, no draft budget will be displayed.

4. **Version Name**

Enter the version name.

5. **Budget Status**

The budget status will be displayed, indicating where the budget is in the submission / baselining process. The budget status can have the following values:

- **Working** A draft that you are entering and updating.
- **Submitted** A draft that is submitted for baselining. If you want to change make changes in a budget that has a Submitted status, you must first select the Rework button, which returns the status to Working.
- **Baselined** A baselined budget version. The Budget Version History window in the Budgets form displays baselined budget versions.

6. **Change Reason**

Enter a change reason. The change reason identifies the reason for changing a budget version from a previous version. See: Defining Budget Change Reasons: page 17 – 173.

7. **Description**

You may enter a description for the budget version.

8. **Budget Entry Method**

You can accept or override the default **budget entry method (BEM)**, which determines the level of detail for the budget.

- If you are entering the first draft for the budget type, the default BEM is determined by the project type of the project.
- If a prior version of the budget type exists, the default BEM is the budget entry method of the project's current budget for the budget type.

You can choose a categorized or uncategorized budget entry method. See: Project Budgeting Detail Options: page 3 – 2.

You can change the BEM at any time, even after you have baselined a budget version for the budget type. When you change the BEM, the system will delete the existing draft budget lines. You can then enter a new draft.

If you select a categorized BEM for the first draft budget of any type, all subsequent draft budgets of that type (after the first draft budget has been baselined) must also use categorized BEMs. The same is true for uncategorized BEMs. The list of values of BEMs will show only valid BEMs for a budget.

See: Budget Entry Methods: page 17 – 169.

9. **Resource List**

The **resource list** is the set of resources that can be used as budget categories for a categorized (detail) budget. These resources will be displayed on the list of values for resource when you are entering budget lines.

If you are entering the first draft for the budget type, you may accept or override the default resource list. If you change the resource list after you have entered budget lines for the budget version, the system will delete the draft lines and you must enter a new draft.

You cannot change the resource list after you have baselined a budget version for the budget type.

10. **Original**

This field displays the version name of the current original budget for the project for the budget type. You can view the original and other historical budgets by in the Budget Version History window (choose History from the Budgets window).

11. **Was Original**

This flag indicates if the budget currently displayed was previously an original budget. Oracle Projects creates such budget versions when you revise the original budget. You can view this value in the Budget Version History window.

12. **New Original**

Use this check box if you want to indicate that this draft, when baselined, will become the revised original budget.

13. **History**

You can choose History to review the details of previous budget versions of the selected budget type. Historic budgets can be viewed for active and inactive budget types.

14. **Labor Hours, Raw Cost, Burdened Cost, Revenue**

These fields display the sum of the labor hours, raw cost, burdened cost, and /or revenue entered for the budget version.

Project or Task Level Budget

You can budget at the project, top task, or lowest task level.

If you are using top task funding for your contract project, you must enter revenue budgets at the top task or the lowest task levels.

► **To enter a project level budget:**

1. Navigate to the Budgets form.
2. Choose a budget entry method set up with a project entry level.
3. Choose the Details button to open the Budget Lines window.
4. Enter the budget lines.
5. Save your work.

► **To enter a task level budget:**

1. Choose a budget Entry Method set up with the appropriate task entry level (Top Tasks, Lowest Tasks, or Top and Lowest Tasks).
2. Choose the Details button to open the Task Budgets window, which displays different levels of tasks, depending on the budget entry method you enter. Choose from the available list in the tasks list of

values to view different task level combinations. See: Set Up Your Work Breakdown Structure (WBS): page 2 – 2.

3. Choose the task for which you want to budget.
4. Choose Budget Lines.
5. Enter the budget lines in the Budget Lines window.
6. Save your work.

Entering Budget Lines

A budget line contains information about how much of a resource is needed. The information in a budget line can include a unit of measure and amounts for quantity, raw cost, burdened cost, and /or revenue.

If you plan to use the cost-to-cost revenue accrual or invoice generation method for your project, you must enter burdened costs in your cost budget and revenue amounts in your revenue budget. Otherwise, Oracle Projects cannot successfully generate revenue or invoices using the cost-to-cost method. For more information about these processes, see: Accruing Revenue for a Project: page 8 – 28 and Invoicing a Project: page 8 – 48.

You can enter and delete budget lines for a budget. You can delete budget lines in a draft. You cannot delete budget lines from a budget that you have baselined, or from an historical budget.

► To See or Enter Detailed Budget Information

1. Navigate to the Budgets window.
2. Enter or choose the Find Draft button to find the draft for the appropriate budget type.
3. To navigate to the Budget Lines window, choose Details.

If you are entering a project level budget, the Budget Lines window will open.

If you are entering a task level budget, the Task Budgets window will open. Select a task, then choose Budget Lines to open the Budget Lines window.

Entering Budget Lines for Period-Phased Budgets

Budget Lines (Vision Services: USD) - Research & Development, (Approved Cost Budget ***)**

Version Number: **Draft** Version Name: **Original**
 Task Number: **1.1** Task Name: **Market Research**
 View Lines For: **ALL** Periods For Totals: **FEB-W2-97** — **MAY-W4-97**

Budget Periods: **Earliest FEB-W2-97** **First MAY-W1-97** **Latest MAY-W4-97**

Resource	Amount Type	MAY-W1-97	MAY-W2-97	MAY-W3-97	MAY-W4-97	Period Totals
Chargebacks	Raw Cost	1,000.00				10,000.00
Chargebacks	Burdened Cost	1,000.00				10,000.00
Contractor	Raw Cost	1,000.00				10,000.00
Contractor	Burdened Cost	1,000.00				10,000.00
Expenses	Raw Cost	3,000.00				30,000.00
Expenses	Burdened Cost	3,000.00				30,000.00
Labor	Hours	360.00	0.00	0.00	0.00	3,600.00
Labor	Raw Cost	9,000.00				90,000.00
Totals	Labor Hours	360.00	0.00	0.00	0.00	3600

Change Reason: Comments:]

If you are entering a budget that is period-phased (time-phased by PA period or GL period), the **matrix entry** Budget Lines window will be displayed for budget lines entry. The matrix entry window opens automatically when you navigate to the Budget Lines window for a period-phased budget.

The type of time-phasing of the budget is determined by the Budget Entry Method selected for the budget.

Using the matrix entry window, you enter budgeted amounts for an **amount type** and a period. The amount type is either quantity, raw cost, burdened cost, or revenue.

Each line in the matrix displays amounts for a resource and an amount type. You select the resource and the amount type for a given budget line. You then enter the amounts for the period range specified.

The Earliest Budget Period and Latest Budget Period fields display the earliest and latest period for which budget amounts have been entered.

You control which periods to display by specifying the **First Budget Period**.

► **To enter budget lines in the matrix entry Budget Lines window:**

1. Enter the **First Budget Period** (either PA or GL period, depending on the budget entry method of the budget version). The period you select will be the earliest period, displayed in the window.

Use the left and right arrow buttons to change the periods displayed in the window. When you choose an arrow, the periods will shift forward or backward by one full screen (the number of periods displayed in the window).

2. Enter the **resource** you want to budget.
3. Select the **amount type**.

You control the amount types that you can select by your selection in the **View Lines For** field in the upper region of the window. If the View Lines For is set to All, you can select any amount type allowed by the budget entry method and budget type. If View Lines For specifies an amount type, then you can only enter budget lines for the amount type specified.

Following are the selections displayed for the View Lines for field:

- Unit of Measure (UOM) the resource, if the resource has a UOM
 - Raw Cost (for cost budgets, if raw cost entry is allowed by the budget entry method)
 - Burdened Cost (for cost budgets, if burdened cost entry is allowed by the budget entry method)
 - Revenue (for revenue budgets, if revenue entry is allowed by the budget entry method)
4. Enter the budget **amounts** for the resource, amount type, and periods displayed.

Amount Type Lines Automatically Created:

In the matrix entry Budget Lines window, when you create a budget line for one amount type, Oracle Projects will create budget lines for other amount types. The other amount types will be the amount types that are enterable fields for the budget entry method being used. (See: Budget Entry Methods: page 17 – 169.)

For example, if you enter an amount for Miles (amount type) for Auto Use (resource), lines will also be created for the amount types Raw Cost and Burdened Cost for the same resource, if the budget

entry method in use for the budget includes raw cost and burdened cost as enterable fields.

You can view all the lines by selecting All in the View Lines For field.

5. If you want to enter a **change reason, comment, or descriptive flexfield** for the resource and time period, navigate to the overflow region. You navigate to the overflow region by using the tab key or by clicking the mouse, depending on the setting of the profile option PA: Tab to Budget Matrix Comments Fields. See: PA: Tab to Budget Matrix Comments Fields: page B – 17.

The overflow region displays the resource and period for which you are currently entering or viewing the change reason, comment, and descriptive flexfield.

The overflow region fields apply to a resource and time period, and are shared across amount types. For example, if you enter a change reason for the labor resource for raw cost for January, the same change reason applies for the labor resource for hours for January.

6. Enter more resources for the same periods or shift the periods displayed for entry by entering a new First Budget Period or by using the Period arrows.
7. Save your work.

► **To view calculated budget amounts:**

If you are using budget calculation extensions to calculate raw costs, burdened costs, or revenue amounts based on the quantity or raw cost that you enter, you will be able to see the calculated amounts when you re-query the field. To re-query, click in the field whose value you want to see.

If you are calculating amounts for which you are not allowed to enter values as defined in the budget entry method, then you cannot see the budgeted amounts in the matrix entry form.

See Also

Budget Calculation Extensions: page 19 – 14

► **To review the budget amounts:**

Use the **View Lines For** field to select which budget lines of a given amount type you want to review. The default selection is All. You can select from any of the following amount types that are allowed by your budget entry method and budget type class (cost or revenue).

- All
- Labor Hours (resources that are tracked as labor hours)
- Quantity (all quantities regardless of unit of measure)
- Raw Cost
- Burdened Cost
- Revenue

For example, you may want to view only budget lines for Raw Cost. If, in addition, you select Raw Cost in the View Totals For field, you can review budget amounts that comprise the displayed budget totals.

► **To review the budget totals:**

Use the View Totals For field to select the amount type you want to display in the Total fields. You can select from any of the following amount types that are allowed by your budget entry method and budget type class (cost or revenue).

- Labor Hours
- Raw Cost
- Burdened Cost
- Revenue

You can review the resource totals for a range of periods by changing the Periods for Totals. These totals are displayed down the right hand side of the window under Period Totals. After you change the Periods for Totals, the totals are redisplayed when you navigate to the lines region.

Entering Budget Lines for Non–Time–Phased or Date Range Budgets

Budget Lines (Vision Services: USD) - Fixed Price, {Approved Cost Budget ***}**

Version Number **Draft** Version Name **Original**

Task Number Task Name

Effective Dates

Resource	From	To	UOM	Quantity	Raw Cost	Burdened Cost
None	01/FEB/1997	02/MAY/1997	Hours		100,000.00	100,000.00

Total **0.00** **100,000.00** **100,000.00**

Change Reason Comment

If you are entering a budget that is non–time–phased or is time–phased by date range, the **row entry** Budget Lines window will be displayed for budget lines entry.

The row entry Budget Lines window has columns for Resource, Period Name, UOM (Unit of Measure), Quantity, Raw Cost, Burdened Cost, and/or Revenue. Budget lines are displayed sorted by resource.

► **To enter budget lines in the row entry Budget Lines window:**

1. Enter the **resource**.
2. Enter the **period** or **dates**.

If the budget is non–time–phased, you do not enter dates. The dates are automatically set to equal the start and completion dates of the project or task.

3. Enter **quantity** and **amounts** for each budget line as defined in the budget entry method that you selected. You can enter a quantity only if the resource has a unit of measure specified. See: Resources and Resource Lists: page 17 – 174.

If you are entering task level budgets, use the up or down arrow buttons to display the next top or lowest level task in the list.
4. Enter a budget **Change Reason** and **Comment** for each budget line.
5. Save your work.

Revising Budget Lines

► To assign a budget line to a different resource:

- If you have already saved your work, you must delete and re-enter the line.

► To delete a budget line:

- Choose the budget line you want to delete and choose the Delete Record button from the toolbar.
- In the Budget Matrix Entry window, deletion of a budget line for a resource and an amount type will only delete the amounts for the periods that are currently displayed. It will not affect amounts for any other periods.

To fully delete a budget line for a resource, you must enter zeros for all amounts and for all periods for that resource.

Example:

A budget line exists for the Labor resource with the following amounts:

- Quantity = 10 for periods January through December
- Raw Cost = 100 for periods January through December

To fully delete the budget line (so that it is no longer displayed), you must change the amounts to zero for quantity and raw costs for periods from January through December.

Calculating Budget Amounts

You can implement Oracle Projects to calculate the raw and burdened costs and the revenue amounts for each budget line based on the quantity or raw cost that you enter, and based upon the rules that you define. You define rules using budget calculation extensions. A budget calculation extension is a client extension you write using PL/SQL.

Using the rules that you define in the budget calculation extension, the system calculates the amounts for each budget line at the following times:

- When you leave the quantity field, the raw cost and the burdened cost are calculated (for a cost budget).
- When you leave the raw cost field, the burdened cost is calculated, if the burdened cost is blank in the Budget Lines window.
- When you leave the quantity field in the Budget Lines window, the revenue amount is calculated (for a revenue budget).
- When you enter the Resource, Dates, and Quantity, or change the resource or dates for existing amounts, the system calls the extensions and recalculates any items specified for recalculation due to the changes.

Your calculation rules also specify whether a user can alter a calculated value, or must accept the calculated value.

See Also

Budget Calculation Extensions: page 19 – 14

Copying Budgets from a Project Template or Existing Project

When you copy a project template or project, the budgets from the source template or source project are automatically copied to the new project.

Oracle Projects creates a draft budget using the current budget of the source template or source project. If the source template or source project does not have a current budget, then Oracle Projects uses the draft.

The new project has a draft for each budget type entered for the source template or source project. After you copy the project, you can modify the budget amounts if necessary.

If the status of the budget in the source template or project is Submitted, then the status of the target budget is Working.

Copying Baselined Budgets

If you create a project by copying from a project template, and the project template has baselined budgets, the budgets for the new project are created as baselined.

If the source project template has a baselined revenue budget but no baselined cost budget, and the new project has a revenue distribution rule that accrues revenue using the ratio of actual cost to budgeted cost (*Cost/Cost*, *Cost/Event*, or *Cost/Work*), then the revenue budget for the new project is a draft budget, not a baselined budget.

If you create a project by copying another project, the budgets created are draft (not baselined).

Copying Project Actuals to the Budget of a New Project

When a new project will have a budget identical or similar to the actual amounts on an existing project, you can easily copy the actuals on the existing project to the new project budget as you create the new project.

► To copy actuals to a new project budget

1. Create a special budget type for this purpose, such as *prototype*. See: Budget Types: page 17 – 168.
2. In the existing project, copy the project actuals to the *prototype* budget (or whatever you have chosen to call the special budget type). See: Copying Actuals to Budget Amounts: page 3 – 29.
3. Create the new project by copying the existing project. See: Creating a New Project from a Project Template or Existing Project: page 2 – 32.
4. In the new project, review and revise the *prototype* budget. When it is ready, copy it to the Approved Cost or Approved Revenue budget (whichever is appropriate). At this step, you can use the Amount Adjustment field to increase or decrease the amounts in

the new budget by a percentage. See: Copying Budgets from Earlier Budget Versions: page 3 – 29.

Copying Dates or Periods for Time-Phased Budgets

When copying time-phased budgets from a project or project template, Oracle Projects adjusts the dates or periods of the budget lines based on the new dates that you specify in Project Quick Entry, according to the following rules:

Case 1: The original project or project template has no start date:

- The budget and budget periods are copied to the new project without any adjustment to the budget periods even if a start date is entered in Project Quick Entry for the new project.

Case 2: The original project or project template has a start date, but no start date was entered in Project Quick Entry:

- The budget and budget periods are copied to the new project without any adjustment to the budget periods.

Case 3: The original project or project template has a start date and a start date was entered in Project Quick Entry. Budget entry method is by GL or PA period:

- Oracle Projects calculates the number of periods between (a) the first budget period entered for the source project or project template and (b) the period that contains the project start date.
- The new budget line start period is derived by adding the number of periods to the period of the start date.

If the source template or project uses budget periods, the new project will use budget periods, also. The budget periods are based on the PA or GL period of the new project's project and task start dates. For example:

- The source project has a start date of September 1, 1996 and budget amounts entered in P09-96, P10-96, and P12-96.
- The new project has a start date of December 15, 1996.
- Budget amounts will be created for the new project in P12-96, P01-07, and P03-97.

The copy process assumes all periods are equal in length. If your periods are not uniform length, you may get unacceptable results and you will have to update the budget manually.

Copying Budgets from Earlier Budget Versions

You can create a new draft by copying any existing budget version of the same project. You can copy from one budget type to another for the same project; for example, you can copy from a cost budget type to another cost budget type. You cannot copy between cost and revenue budget types, nor can you copy budget versions between projects (except when copying the project from another project).

When you copy a prior version you can specify a growth percentage, which increases or decreases the copied budget amounts, but not the budgeted quantities, optionally rounded to the precision you choose. The new budget amounts override any data that exists in the draft.

► **To copy budget amounts from an earlier budget version:**

1. Navigate to the Budgets form.
2. Enter the Project Number and Budget Type that you want to copy.

You must enter a valid project number before you can enter a budget type.

3. Choose History.
4. In the Budget Version History window, select the budget Version that you want to copy.
5. Choose Copy To.
6. Choose the Budget Type that you want to copy to. Change the Amount Adjustment and Rounding Precision if you want to adjust the budget amounts when you copy the budget.

When you copy a budget, the To Draft Budget Type field defaults to the budget type you entered in Step 2. However, if the From Baselined budget type is an inactive budget type, the field defaults to blank.

7. Choose OK. Oracle Projects automatically displays the new draft in the Budgets window.
8. Revise the budget amounts as necessary.

Copying Actuals to Budget Amounts

You can build a draft for a period-based budget based upon actual past expenditures. (You cannot copy actuals for time-phased budgets that use date ranges, or for non-time-phased budgets.)

Oracle Projects uses the budget entry method and resource list that you specify for the draft when copying actual amounts to the budget amounts. If you specify a budget entry method that uses both top and lowest task budgets, the budget lines are created at the lowest task level, using the resources in the resource list to which the actuals are mapped. Oracle Projects copies the actual amounts using the lowest level in the resource list; it uses the resources in the resource list, if resources are used; otherwise, it uses the resource groups. The resources are used even if you have budgeted at the resource group level. See: Resources and Resource Lists: page 17 – 174 and Summarizing Actuals and Commitments by Resource: page 9 – 20.

The resulting new draft reflects the actuals incurred. If a resource was previously budgeted, but no actuals were incurred, this resource is not copied to the new draft budget. If an actual was incurred but was not previously budgeted, a new budget line is created in the budget to reflect the actual that was incurred.

In the following example, you enter the following actuals for that resource, and associate the following resource list with Project X.

Actuals				
<u>Period</u>	<u>Employee</u>	<u>Amt.</u>	<u>Resource</u>	<u>Qty.</u>
PA 1	Marlin	100	Professional	2 hrs.
	Vincent Business Supply	77	Supplies	
PA 2	Marlin	150	Professional	3 hrs.
	Gray	10	Computer Services	1 hrs.
	Robinson	50	Clerical	1 hrs.

Resource List (Expenditure Type by Expenditure Category)		
Resource Group	Resource	Resource Type
Labor	Professional	Expenditure Type
	Clerical	Expenditure Type
Asset	Computer Services	Expenditure Type

When you copy actuals from Project X, the following resulting budget lines are created:

Resulting Draft				
<u>Period</u>	<u>Resource Group</u>	<u>Resource</u>	<u>Qty.</u>	<u>Amt.</u>
PA 1	Labor	Professional	2	100
	Uncategorized	Uncategorized		77
PA 2	Labor	Professional	3	150
	Labor	Clerical	1	50
	Asset	Computer Services	1	10

► **To copy actual amounts to budget amounts:**

Prerequisite

- ☐ Run the Update Project Summary Amounts process for the project and the periods for which you want to copy actuals. Oracle Projects uses the project summary amounts when copying actuals to budget amounts. See: Updating Project Summary Amounts: page 9 – 17.

Only actuals from periods whose ending dates are earlier than the current date will be copied to budget amounts.

1. Navigate to the Budgets form.
2. Choose the project and budget type into which you want to copy actuals.
3. Choose Find Draft.
4. Choose Copy Actuals.
5. Enter the period range for which you want to copy actuals. Enter GL periods if you are budgeting by GL period, or PA periods if budgeting by PA period.

The default start period is the earliest period for which the project has summarized actuals for the resource list used on the budget. The default end period is the current reporting period.

6. Choose OK.
7. Revise the budget amounts if necessary.
8. Save your work.

Deleting a Draft

Find the draft you want to delete. Choose the Delete Record button from the toolbar, and choose OK to delete the draft. Oracle Projects deletes all budget lines associated with the budget version.

You can then create a new draft and enter any new lines by choosing Find Draft and navigating to the Budget Lines window.

Submitting a Draft

When you complete budget entry, you can submit your draft to indicate that it is ready for review and baselining.

When you submit a draft, Oracle Projects calls the budget verification extension. If the draft passes the rules in the budget verification extension, the budget status changes to *Submitted*. If the draft does not pass the rules in the budget verification extension, its status remains set to *Working*. See: Budget Verification Extension: page 19 – 116.

If the budget type of the budget uses Workflow to process budget status changes, the budget status changes to *In Progress* when a draft is submitted. After a successful submission, the budget status changes to *Baselined*. While the budget Workflow is active for a budget, no data entry is allowed for the budget and the buttons are disabled when the budget is displayed.

You can use the status information to inform individuals or groups who have different responsibilities with regard to budgets. For example, if project managers create draft budgets and the accounting department is responsible for baselining the budgets, the status informs users when a budget is ready for their use.

You can change a submitted budget back to the status *Working* if you need to make changes to the draft. For example, change the status to *Working* if you accidentally submitted the budget, or you found errors in the budget.

While the budget Workflow is active for a budget, you cannot change the status using the Budget window.

You cannot change the status to *Working* after you have baselined the budget.

If you want to make changes to the budget that is already baselined, you must create a new baselined budget. See: Revising a Baselined Budget: page 3 – 38.

Prerequisite

- ❑ Enter a draft. See: Entering a Draft: page 3 – 15.

► **To submit a draft:**

- Find the working draft that you want to submit in the Budgets window. Choose Submit.

► **To change a submitted budget status from Submitted to Working:**

- Find the submitted draft that you want to change in the Budgets window. Choose Rework. Update the draft, as necessary and save your work.

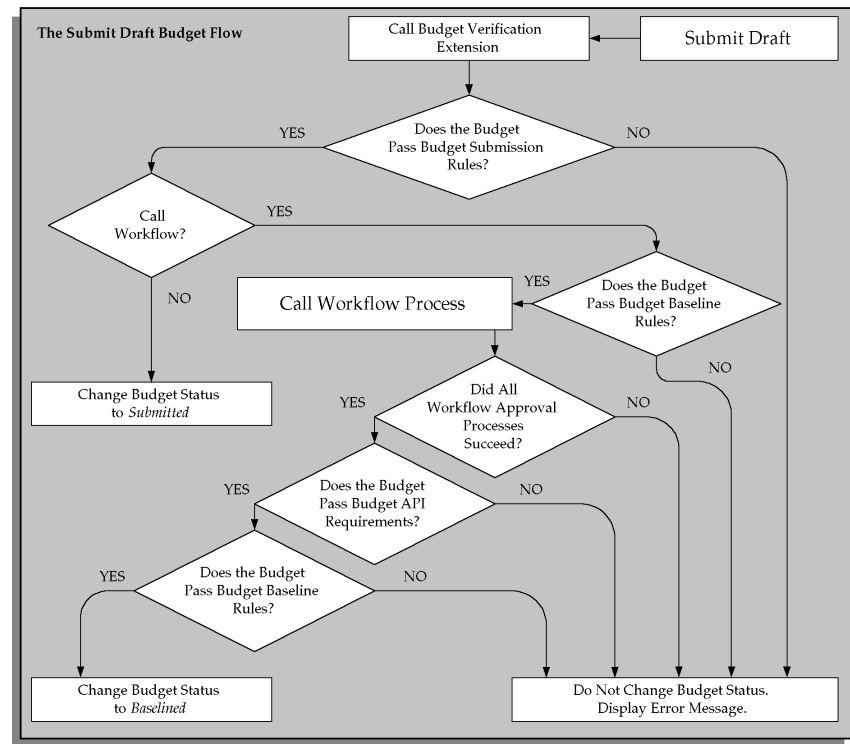
After you have completed the changes, you can resubmit the draft.

You cannot choose Rework if a workflow is active for the budget.

The Submit Draft Budget Process

Figure 3 – 3

The Submit Draft Budget Flow



When you choose Submit from the Budgets window, the following events occur:

1. Oracle Projects calls the budget verification extension. The procedure is called **pa_client_extn_budget.verify_budget_rules**.

By default, the budget verification extension does not include any budget submission requirements. You can customize the extension to match your company's rules for budget submission. See: Budget Verification Extension: page 19 – 116.

2. The budget verification extension has two possible outcomes:
 - If the budget submission requirements are not met by the draft budget, an error message is issued and no status change is made.
 - If the budget submission requirements are met by the draft budget, Oracle Projects proceeds to the next step.

3. The system must determine whether to call Workflow. The field *Use Workflow for Budget Status Change* in the Budget Type window determines whether Oracle Projects calls Workflow for the draft budget submission.
 - If Workflow is not called, Oracle Projects changes the status of the draft budget to *Submitted*.
 - If Workflow is called, Oracle Projects proceeds to the next step.
4. Oracle Projects calls the budget verification extension to determine whether the budget passes the budget baseline rules.

By default, the budget verification extension does not include any budget baseline requirements. You can customize the extension to match your company's rules for baselining a budget. See: Budget Verification Extension: page 19 – 116.

 - If the budget fails the budget baseline rules, an error message is issued and no status change is made.
 - If the budget passes the budget baseline rules, Oracle Projects proceeds to the next step.
5. Oracle Projects calls the Workflow process indicated in the budget workflow extension. See: Budget Workflow Extension: page 19 – 119.
 - If the draft budget fails the Workflow process, an error message is issued and no status change is made.
 - If the draft budget travels successfully through the Workflow process, Oracle Projects proceeds to the next step.
6. Oracle Projects applies the standard budget baseline requirements to the budget.
 - If the budget fails the standard budget baseline requirements, an error message is issued and no status change is made.
 - If the budget passes the standard budget baseline requirements, Oracle Projects proceeds to the next step.
7. Oracle Projects calls the budget verification extension again, to verify that the budget still passes the budget baseline rules.
 - If the budget fails the budget baseline rules, an error message is issued and no status change is made.
 - If the budget passes the budget baseline rules, Oracle Projects changes the budget status to *Baselined*.

See Also

Budget Workflow: page 13 – 99

Baselining a Draft

Baselining is the process of approving a budget for use in reporting and accounting. When the baselining function is called, the system copies the draft amounts into a new baselined budget version.

The most recent baselined version is named the Current Budget, which is used for reporting. All previously baselined budgets are historical baselined versions. The Current Budget, and all other baselined budget versions, have a status of *Baselined*.

For security reasons, this process is usually performed by a different project member than the person who entered and submitted the budget.

If a budget type uses Workflow for budget status changes, a draft budget is automatically baselined after it is submitted, if it passes all the Workflow approvals and other requirements. See Submitting a Draft page 3 – 32.

For contract projects in Oracle Project Billing, the baseline function verifies that the budget amounts for the budget type *Approved Revenue Budget* equals the total funding for the project or for the top tasks within the project, if using task level funding. If this check is successful, a new budget version is created. If the amounts are not equal, Oracle Projects displays an error and does not create a new budget version.

Re-Baselining Budgets That Are Non-Time-Phased

If you create a budget that is not time-phased, and you used the default start and end dates (from the project or task start/end dates) when you create the budget, be aware of the following caveat:

- **Project Budget:** If you change the start or end date of the related **project**, you must re-baseline the budget to reflect the new dates.
- **Task Budget:** If you change the start or end date of the related **task**, you must re-baseline the budget to reflect the new dates.

Prerequisites

- ❑ Enter and submit a draft. See: *Entering a Draft*: page 3 – 15
- ❑ For contract projects in Oracle Project Billing with budgets using the budget type *Approved Revenue Budget*, enter the funding amount equal to the budget amount. If you are using top task funding, you must enter revenue budgets at the top task and /or the lowest task levels.

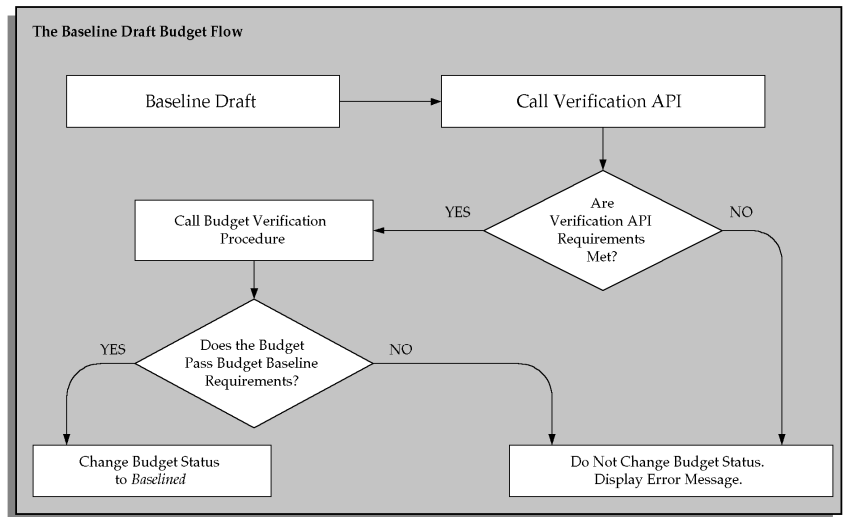
► To baseline a draft:

1. Find the submitted draft that you want to baseline. Choose Baseline.
2. If the baseline function fails for the Approved Revenue Budget because the funding does not equal the revenue budget, then you must change the budget or the funding amounts before you can successfully baseline the budget.

The Baseline Draft Budget Process

Figure 3 – 4

The Baseline Draft Budget Flow



When you choose Baseline from the Budgets window, the following events occur:

1. Oracle Projects calls the Budget Verification API. This program checks for standard rules that a budget must pass before it can be baselined. For example, an approved revenue budget amount must equal the project funding.
2. Oracle Projects calls the budget verification extension. The procedure is called **pa_client_extn_budget.verify_budget_rules**.
By default, the budget verification extension does not include any budget baseline requirements. You can customize the extension to match your company's rules for baselining a budget. See: Budget Verification Extension: page 19 – 116.
3. The budget verification extension has two possible outcomes:
 - If the draft budget fails the baseline requirements, an error message is issued and no status change is made.
 - If the draft budget passes the baseline requirements, Oracle Projects changes the budget status to *Baselined*.

Revising a Baselined Budget

After you baseline a budget, you can modify the following descriptive fields on a baselined version:

- Version Name
- Change Reason
- Description
- Comment

You cannot directly change the amounts or structure of a budget that has been baselined. If you need to make changes to a baselined budget, you must update the draft and baseline that version as the new Current Budget.

After you baseline a budget, the draft is the same as the last current budget version.

See Also

Entering a Draft: page 3 – 15

Revising an Original Budget

The first time you baseline a budget, that budget becomes the Original Budget. The Project Status window displays information in the Original Budget and the Current Budget.

You may want to modify the Original Budget to correct data entry errors or scope changes which you want to include in the original budget amounts.

Oracle Projects uses the latest revised original budget as the Original Budget in reporting.

► **To revise an original budget:**

1. Choose the New Original box in the Budgets window.
2. In the Budget Lines window, enter the revised budget amounts for the draft.
3. Submit the budget for baselining. See: Submitting a Draft: page 3 – 32.
4. Choose Baseline. Oracle Projects creates a new version which is identified as the new Current Budget and the new Original Budget.

Reviewing a Budget

You can review current or historical budget information.

► **To review budget history online:**

1. Navigate to the Budgets form.
2. Choose the project and budget type for which you want to review budget history.
3. Choose History.
4. Review the budget versions in the Budget Version History window.
5. Choose Details to review the details of a budget version.

You can also run reports that compare actual amounts to the current budget. See: *Comparing Budget to Actual and Commitment Amounts*: page 9 – 6.

CHAPTER

4

Expenditures

This chapter describes everything you need to know about expenditures in Oracle Projects.

Overview of Expenditures

An expenditure is a group of expenditure items, or transactions, incurred by an employee or an organization for an expenditure period. You charge expenditures to a project to record **actual** work performed or cost incurred, and you charge commitments to future, **committed** costs you expect to incur.

You must charge all actual expenditure items and future commitments to a project and task. Examples of actual expenditures are timecards, expense reports, usage logs, and supplier invoices. Examples of commitments are requisitions and purchase orders.

The following are examples of expenditures and commitments:

- You have worked eight hours on Monday, June 6 for project A, task 1 doing Professional work (expenditure)
- You travelled twenty miles on Tuesday, June 7 for project X, task 1 using your own vehicle (expenditure)
- You made ten copies of a blueprint on Thursday, June 9 for project Y, task 1 using copier number 1243 (expenditure)
- You issued a purchase order for 200 pounds of cement on Friday, June 10 for project Z, task 2.3 (commitment)

You associate each expenditure item with an expenditure type class, (such as Straight Time or Supplier Invoice). The expenditure type class tells Oracle Projects how to process the expenditure item. See: Expenditure Type Classes: page 17 – 78

Expenditure Classifications

Expenditure types (such as Administrative, Hotel, or Overtime) classify the type of cost incurred. You can categorize costs and revenues by grouping the expenditure types into expenditure categories such as Materials and Labor. You define all expenditure types, expenditure categories, and revenue categories during implementation.

Expenditure Amounts

During processing, the system associates each expenditure item with a unit quantity and two cost amounts, raw and burden cost, when processed. The raw cost is the actual cost of the work performed; the burden cost is the indirect cost of the work performed. For example, the raw cost could be the hours multiplied by the hourly cost rate, and the

burden could be the cost of the office space or benefits. The total burdened cost is the raw cost plus the burden cost.

Expenditure Item Validation

When you enter expenditure items, you are charging hours, expenses, or non-labor resources to a project and a task. Oracle Projects validates expenditure items against predefined criteria and any transaction controls and transaction control client extensions that you set up during the implementation.

The standard validation process performs the following checks:

- Project
 - Expenditure item falls within project dates
 - Project status allows transactions
 - Transaction controls and transaction control extensions allow charges of this type
 - Project allows cross-charges from the user's operating unit in a multi-organization environment
- Task
 - Expenditure item falls within task dates
 - Task is a lowest task and chargeable
 - Transaction controls and transaction control extensions allow charges of this type
- Expenditure type
 - Expenditure type is active
 - Is valid for foreign currency
- Employee
 - Employee is active
- Existing expenditure item (for adjustments only)
 - Matching expenditure item exists (unless you enter an unmatched, negative transaction)

Oracle Projects validates pre-approved expenditure batches as you enter expenditure item details. Expenditures created using external cost collection systems are validated during the Submit and Transaction Import processes, but before Oracle Projects creates an expenditure.

Possible reasons for rejection are listed in Table 4 – 1. If you receive a rejection reason not included in the table, check with your implementation team for rejection reasons defined in the transaction control extensions. If you cannot access a window mentioned in the table, contact the key member for the project for assistance.

Rejection Reason (Error Lookup Code)	Troubleshooting Tips	Expenditure
You may receive the following rejection reasons when you use Transaction Import to import an expenditure.		
Burdened cost is not valid for the given system linkage (INVALID_BURDENED_AMOUNT)	A transaction with an expenditure type class of Burden Transactions should have a burden cost of NULL. For other expenditure type classes, the burden cost should equal zero if the transaction source or project does not allow burdening.	All
CCID for credit is NULL (INVALID_CR_CCID)	The code combination ID for the credit account cannot be NULL for transactions that have been accounted for in an external system.	GL accounted transactions
CCID for debit is NULL (INVALID_DR_CCID)	The code combination ID for the debit account cannot be NULL for transactions that have been accounted for in an external system.	GL accounted transactions
Cannot lock original item for reversal (CANNOT_LOCK_ORIG_ITEM)	Another user or a process is currently accessing the original item to be adjusted. Try to revise the expenditure item later..	All
Cross charge validation failed (CROSS_CHARGE_PROJECT_INVALID)	You will get this message only if you have implemented multiple organization support and are using Transaction Import to charge expenditure items to a project owned by an operating unit that does not share your operating unit's set of books, PA period type, and business group. Revise the expenditure item by entering a project owned by an operating unit to which you can charge.	All
Different system linkage (DIFF_SYS_LINKAGE)	During Transaction Import, Oracle Projects verifies that the expenditure type class of the transaction matches the expenditure type class of the expenditure type. You can either associate the expenditure type class with the expenditure type using the Expenditure Types window, or you can change either the expenditure type or the expenditure type class on the transaction so they form a valid combination.	All
Duplicate item (DUPLICATE_ITEM)	An expenditure item with the same transaction source and original system reference already exists. Change the transaction source or original system reference of the expenditure item to be imported.	All
Employee is mandatory (EMP_MAND_FOR_ER/TIME)	Enter information into the employee number field.	Timecards and expense reports
Employee or organization is mandatory (EMP_OR_ORG_MAND)	Enter either the employee name and number or expenditure organization in the appropriate expenditure field.	All except timecards and expense reports

Table 4 – 1 Rejection reasons for expenditure items such as timecards, expense reports, usage logs, etc. (Page 1 of 5)

Rejection Reason (Error Lookup Code)	Troubleshooting Tips	Expenditure
Expenditure item date is after the expenditure ending date (EI_DATE_AFTER_END_DATE)	The expenditure item date is after the expenditure ending date. Verify that both the expenditure item and the expenditure dates are correct and change, if necessary.	All
Expenditure item date is not within the expenditure week (ITEM_NOT_IN_WEEK)	Verify that the expenditure item date and the expenditure date are both correct and change, if necessary. You can also create a new expenditure for the expenditure item.	Timecards
Expenditure organization is not active (PA_EXP_ORG_NOT_ACTIVE)	The expenditure organization is not active or is not within the current expenditure organization hierarchy.	All
Expenditure type/expenditure type class inactive (ETYPE_SLINK_INACTIVE)	The combination of the expenditure type and expenditure type class is inactive as of the expenditure item date. Refer to PA_EXPEND_TYP_SYS_LINKS for valid expenditure type/expenditure type class combinations.	All
Expenditure type inactive (EXP_TYPE_INACTIVE)	The expenditure type has been defined, but it is either not yet effective or has already expired as of the expenditure item date. Refer to the Expenditure Types window to view all valid expenditure types and their effective dates or to change the expenditure type's effective dates.	All
GL date is NULL (INVALID_GL_DATE)	A transaction that has already been accounted for in an external system must have a GL date.	GL accounted transactions
Invalid burden transaction (INVALID_BURDEN_TRANS)	Raw cost and quantity must equal zero or NULL for burden transactions.	Burden transactions
Invalid employee (INVALID_EMPLOYEE)	Oracle Projects does not recognize the employee number. Verify that you have entered the information correctly or add a new employee.	All
Invalid ending date (INVALID_END_DATE)	The expenditure ending date does not fall on the day of the week defined as your expenditure cycle end day. Refer to the Implementation Options window (Costing) for the valid expenditure cycle start day.	All
Invalid expenditure type (INVALID_EXP_TYPE)	The expenditure type does not exist. Refer to the Expenditure Types window for a list of all valid expenditure types or to create a new expenditure type.	All
Invalid expenditure type class (INVALID_EXP_TYPE_CLASS)	The expenditure type class of the transaction is invalid. Refer to PA_SYSTEM_LINKAGES for valid expenditure type classes.	All
Invalid expenditure type/system linkage combination (INVALID_ETYPE_SLINK)	The combination of the expenditure type and expenditure type class is invalid. Refer to PA_EXPEND_TYP_SYS_LINKS for valid expenditure type/expenditure type class combinations.	All
Invalid non-labor resource (INVALID_NL_RSRC)	The non-labor resource does not exist. Refer to the Non-Labor Resources window for a list of all valid non-labor resources or to create a new new non-labor resource.	Usage logs
Invalid non-labor resource organization (INVALID_NL_RSRC_ORG)	The non-labor resource organization does not exist. Refer to the Non-Labor Resources window for a list of all valid organizations for a particular non-labor resource or to assign a new organization to a non-labor resource.	Usage logs

Table 4 – 1 Rejection reasons for expenditure items such as timecards, expense reports, usage logs, etc. (Page 2 of 5)

Rejection Reason (Error Lookup Code)	Troubleshooting Tips	Expenditure
Invalid organization (INVALID_ORGANIZATION)	The expenditure organization does not exist. Refer to the expenditure organization hierarchy set up in Oracle Projects to determine all organizations defined as valid expenditure organizations.	All
Invalid project (INVALID_PROJECT)	The project number does not exist. Refer to the Projects Summary window for a list of all valid projects or to the Projects, Templates Summary window to create a new project by copying an existing project or template.	All
Invalid project type (INVALID_PROJECT_TYPE)	The project type for the given project is invalid.	All
Invalid task (INVALID_TASK)	The task number does not exist for the project, or the task is not a lowest task. Open your project and choose the Tasks option to view all valid tasks or to create a new lowest task.	All
Invalid transaction source (INVALID_TRX_SOURCE)	Oracle Projects does not recognize the transaction source. Refer to the Transaction Sources window for a list of valid transaction sources or to create a new transaction source.	All
No open or future PA period for the expenditure item and GL dates (INVALID_PA_DATE)	There is no open or future PA period for the given expenditure item and GL dates.	GL accounted transactions
Non-labor resource expenditure type different (NL_EXP_TYPE_DIFF)	The non-labor resource is not associated with the expenditure type. Refer to the Non-Labor Resources window for a listing of all valid non-labor resources and their expenditure types or to create a new non-labor resource.	Usage logs
Non-labor resource inactive (NL_RSRC_INACTIVE)	The non-labor resource has been defined, but it is either not yet effective or has already expired as of the expenditure item date. Refer to the Non-Labor Resources window for a list of valid non-labor resources and their effective dates or to change the effective dates.	Usage logs
Non-labor resource mandatory for usages (NL_RSRC_MAND_FOR_USAGES)	A non-labor resource has not been specified. Enter the non-labor resource name for the rejected expenditure item in your usage log.	Usage logs
Non-labor resource owning organization mandatory for usages (NL_RSRC_ORG_MAND_FOR_USAGES)	A non-labor resource organization has not been specified. Enter the appropriate organization name.	Usage logs
No assignment (NO_ASSIGNMENT)	The employee does not have an active assignment to a specific organization and job as of the expenditure item date. Verify the expenditure item date and the employee assignment and make changes, if necessary. You can also refer to the Person Information window for the employee's organization and job assignments and their effective dates, to change an assignment's effective dates, or to create a new assignment.	All

Table 4 – 1 Rejection reasons for expenditure items such as timecards, expense reports, usage logs, etc. (Page 3 of 5)

Rejection Reason (Error Lookup Code)	Troubleshooting Tips	Expenditure
No matching item (NO_MATCHING_ITEM)	If the transaction is an adjustment with a negative quantity, and the unmatched negative flag is not set to Yes, an original, approved, unreversed expenditure item matching the transaction's employee/organization, item date, expenditure type, project, task, reversing quantity, reversing cost (if loading costed items via Transaction Import), and non-labor resource and non-labor organization (for usages) must exist. Also, the matching expenditure item must have been originally loaded from the same transaction source. If more than one item matches the original item, Oracle Projects uses the first one that was created.	Adjusting transactions
No raw cost (NO_RAW_COST)	Transaction currency raw cost amount is missing. Expenditure items with a costed transaction source must include this information.	All
Organization does not own the non-labor resource (ORG_NOT_OWNER_OF_NL_RSRC)	The non-labor resource has not been assigned to the non-labor resource organization as of the expenditure item date. Refer to the Non-Labor Resources window for a list of all organizations associated with the resource or to associate a new organization with the resource.	Usage logs
Project is not chargeable (PA_PROJECT_NOT_VALID)	The project is a template; has a transaction control that does not allow charges; does not share a business group, set of books, and PA period type with the user's operating unit; or the project status does not allow new transactions.	All
Project does not allow burden transactions (PROJ_NOTALLOW_BURDEN)	Burden transactions are not allowed for this project.	Burden transactions
Transaction source does not allow burden transactions (TRXSRC_NOTALLOW_BURDEN)	Burden transactions are not allowed for transactions you import from this transaction source.	Burden transactions
Transaction source inactive (TRX_SOURCE_INACTIVE)	The transaction source has been defined, but either is not yet effective or has already expired as of the expenditure item date. Refer to the Transaction Sources window for a list of all valid transaction sources and their effective dates or to change the effective dates.	All
You may receive the following rejection reasons when you use Transaction Import to import an expenditure or when you enter an expenditure in Oracle Projects (pre-approved batches), Oracle Purchasing (purchase orders and requisitions) or Oracle Payables (supplier invoices). You may receive additional rejection reasons if your company has implemented transaction controls.		
Project/Task validation error (PA_EXP_INV_PJTK)	The project or task does not exist, or the task does not belong to the project. Change the expenditure item's project or task.	All
Project/Task-level expenditure transaction control violated (PA_EXP_PJ/TASK_TC)	The transaction violates the project level or task level transaction controls defined for the project. Refer to the Transaction Controls window for a list of the transaction controls on the project or task or to change the transaction controls. You can also charge the expenditure item to another project or task.	All

Table 4 – 1 Rejection reasons for expenditure items such as timecards, expense reports, usage logs, etc. (Page 4 of 5)

Rejection Reason (Error Lookup Code)	Troubleshooting Tips	Expenditure
The task is not chargeable (PA_EXP_TASK_STATUS)	The task's Allow Charges flag has not been enabled. Enable this flag from the task's Task Details window or charge the item to another task.	All
Expenditure item cannot be charged to a Closed project (PA_EX_PROJECT_CLOSED)	Project status does not allow transactions to be charged to this project. Change the status of the project or charge the expenditure item to another project.	All
Expenditure item date is not within the active dates of the task (PA_EXP_TASK_EFF)	Change the expenditure item date or the task's active dates, or charge the expenditure item to another task.	All
Expenditure item date is not within the active dates of the project (PA_EX_PROJECT_DATE)	Change the expenditure item date or the project's active dates, or charge the expenditure item to another project.	All

Table 4 – 1 Rejection reasons for expenditure items such as timecards, expense reports, usage logs, etc. (Page 5 of 5)

Expenditure Entry Methods

You can create expenditure items in Oracle Projects to record actual work performed or costs incurred against a project in one of the following ways:

- Enter pre-approved expenditure batches
- Import transactions from external sources
- Enter expenditures in other Oracle Applications, such as Payables and Oracle Inventory, and import them into Oracle Projects

See Also

Transaction Controls: page 4 – 62

Pre-Approved Expenditures: page 4 – 9

Using Transaction Import: page 14 – 13

System Integration: page 13 – 2

Pre-Approved Expenditures

Pre-approved expenditures include the following items:

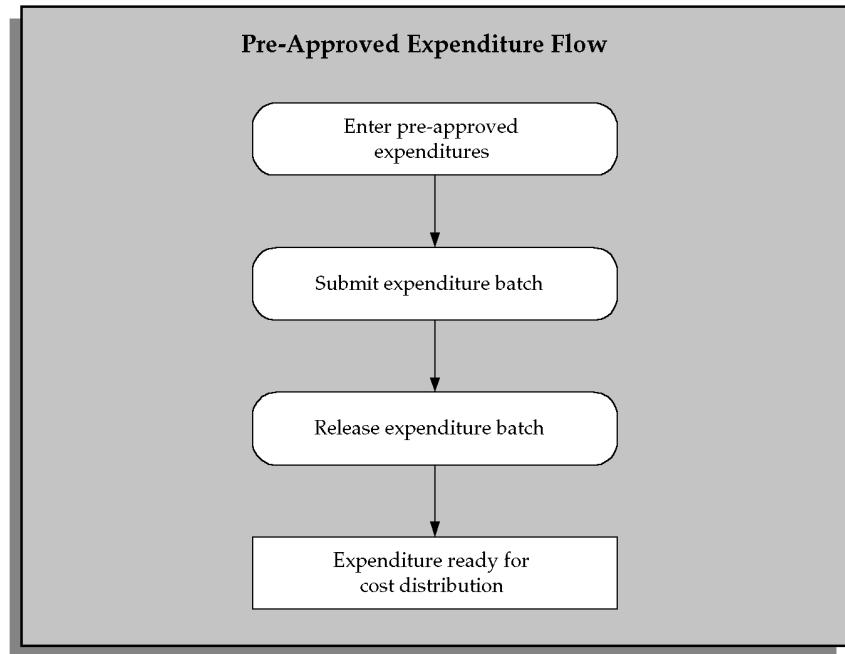
- timecards
- expense reports
- usage logs
- miscellaneous transactions
- burden transactions
- inventory transactions
- work in process transactions

These entries are generally completed on paper and approved by a supervisor, then entered into Projects.

Transactions with an expenditure type class of Work in Process or Inventory are usually imported from a manufacturing system. Related burden transactions are usually generated and imported via Transaction Import.

You enter pre-approved expenditures into Oracle Projects in a batch, submit them for review, and then release them for cost distribution.

Figure 4 – 1



Statuses

Pre-approved expenditure batches can have one of the following statuses:

Working	The expenditure batch is not ready for review. You can enter timecards, expense reports, usages, miscellaneous transactions, burden transactions, inventory transactions, or work-in-process transactions and modify their expenditures and expenditure items.
Submitted	The batch is awaiting review. You can still retrieve the batch if you need to make corrections.
Released	The expenditure batch has been released for cost distribution. You can reverse incorrectly entered expenditure items within the batch. See: Correcting Expenditures and Expenditure Items: page 4 – 24.

You can choose Unreleased from the Status poplist in the Find Expenditure Batches window to retrieve both Working and Submitted expenditure batches.

Entering Pre-Approved Expenditure Batches

Expenditure Batches (Vision Services: USD)

Batch: **t08-dec-96-vs** Status: **Released**

Ending Date: **08/DEC/1996**

Class: **Timecards**

Description: **Timecards**

Transaction Source:

Created By: **Gray, Mr. Donald R**

Date: **10/APR/1997**

☐ All Negative Transactions Entered As Unmatched

Amounts			
	Control	Running	Difference
Totals	202	202	0
Count	5	5	0

Rework Submit Reverse... Copy From... Expenditures

Enter pre-approved expenditures, such as timecards, expense reports, or usage logs, in batches. If you enter expenditures in a batch, Oracle Projects processes them as a group. In addition, when you release the batch for cost distribution, Oracle Projects releases all expenditures in the batch simultaneously.

Batch entry promotes accuracy and efficiency. You can use batches to:

- Reduce data entry. You can create a new timecard batch by copying any previously created batch.
- Verify accuracy by tracking variances between actual and entered totals
- Easily locate a group of expenditures to correct, submit for review, or release for cost distribution

When you enter pre-approved expenditures, you first create a new batch, then enter the expenditures in the batch and their associated expenditure items. When you have entered all expenditures and expenditure items, you can submit the contents of the batch. Typically, your supervisor reviews your submitted batches and releases them for cost distribution.

Your implementation team can decide to allow the same person or job responsibility to both enter, submit, and release pre-approved expenditures. See: Setup Step 73: Define responsibilities for different functional users: page 17 – 14.

Creating a Pre-Approved Expenditure Batch

Sort paper expenditure reports into batches containing the same Expenditure Ending date and Expenditure Type Class (Straight Time, Overtime, Expense Reports, Usages, Supplier Invoices, Miscellaneous Transactions, or Burden Transactions).

If you integrate with Oracle Manufacturing or Oracle Inventory, use function security to prevent users from entering pre-approved batch items with an expenditure type class of Inventory or Work in Process.

► To create a new batch:

1. Navigate to the Expenditure Batches window.
2. **Batch.** Enter a unique Batch name to identify this set of expenditures.



Suggestion: Choose a unique, identifiable, and memorable batch name. For example, a timecard batch name might include your organization code, the letter "T" to indicate Timecards, and the week ending date.

3. **Ending Date.** Enter the expenditure Ending Date for the batch. If you enter a date that is not the last day of an expenditure week, the system automatically updates the date to the next valid week ending date.
4. **Class.** Choose the expenditure type class for this batch.
5. **Description.** Optionally enter a Description of the batch, or leave the field blank to use the name of the expenditure type class.
6. **Amounts.** Optionally enter Control Totals and Control Count in the Amounts region. Use the Running Totals and Counts and the Difference column to verify actual versus entered totals.

See: Verifying Control Totals and Control Counts: page 4 – 21.
7. Choose Expenditures to enter the batch. The status of a new batch is always Working.
8. Enter the expenditures and expenditure items in the batch. See: Entering Expenditures: page 4 – 14.

9. Save your work.

Entering Expenditures

The screenshot shows the 'Expenditures - t-08-dec-96-vs' window. It contains two main tables. The first table lists employee information with columns: Employee Name, Employee Number, Organization, Expnd Ending Date, Control Total, and Running Total. The second table, titled 'Expenditure Items', lists item details with columns: Expnd Item Date, Project Number, Task Number, Expnd Type, UOM, Quantity, and Comment. Below the tables are summary fields for 'Batch Control Total' and 'Batch Running Total', both showing the value 202. A 'Reverse Original...' button is located at the bottom right.

Employee Name	Employee Number	Organization	Expnd Ending Date	Control Total	Running Total
Gray, Mr. Donald	33	Consulting-East	08/DEC/1996	42	42
Marlin, Ms. Amy	34	Consulting-East	08/DEC/1996	40	40
Cochran, Mr. Bob	36	Information Service	08/DEC/1996	40	40

Batch Control Total: 202 Batch Running Total: 202

Expnd Item Date	Project Number	Task Number	Expnd Type	UOM	Quantity	Comment
02/DEC/1996	Construction	1.1	Professional	Hours	5	Time spent four
02/DEC/1996	Construction	1.2.2	Professional	Hours	1	Finishing plann
02/DEC/1996	Construction	1.2.1	Professional	Hours	2	Review of fram
03/DEC/1996	Construction	1.1	Professional	Hours	5	Time spent four
03/DEC/1996	Construction	1.2.1	Professional	Hours	2	Review of fram
03/DEC/1996	Construction	1.2.2	Professional	Hours	1	Finishing plann
04/DEC/1996	Construction	1.2.2	Professional	Hours	1	Finishing plann

Reverse Original...

Oracle Projects validates expenditure item information as you enter it. For a list of the validation criteria Oracle Projects uses, see: Expenditure Item Validation: page 4 – 3.

Expenditures Header Information

► To enter an expenditure:

1. **Employee and Organization.** In the Expenditures window, enter the employee or organization that incurred the cost.
 - For time and expense reports, enter an employee.

- For asset usages, miscellaneous, and burden transactions, enter an employee or organization.
 - For all other expenditures, enter an organization.
2. **Control Total.** Optionally enter the total units of measure in the Control Total field. (Some companies record the total units of measure on the paper expenditure report. Record that total in the Control Total field.)

When you have entered all the expenditure items, you can compare the Control Total with the Running Total, to verify your entries. See: Verifying Control Totals and Control Counts: page 4 – 21.
 3. **Currency Fields.** If the expenditure type class for the expenditure batch is Expense Reports, the currency fields are enabled. For descriptions of these fields, see: Currency Fields for Expenditures: page 4 – 16.

The currency fields are not shown in the default folder. You can modify the folder to display these fields.
 4. **Expenditure Items.** Enter the expenditure items In the Expenditure Items region. See: Entering Expenditure Items: page 4 – 15.
 5. Optionally rework the expenditure to add or revise transactions, and save your changes.
 6. When you have completed the expenditure batch, submit the batch for review. See: Submitting an Expenditure Batch: page 4 – 21.

Entering Expenditure Items

► To enter expenditure items:

For each expenditure item, enter the following information:

1. **Expenditure Item Date.** The date of the expenditure item.
2. **Project Number.** The Project Number to charge for this expenditure item.
3. **Task Number.** The lowest level Task Number to charge for this expenditure item.
4. **Expenditure Type.** You can choose any expenditure type within the current expenditure type class.
5. **Non-Labor Resource and Non-Labor Organization.** If the expenditure type class for the batch is Usages, enter the non-labor

resource and its owning organization. This enables you to track usage of company-owned assets.

6. **Currency Fields.** You can optionally display and enter the currency fields. For descriptions of these fields, see: Currency Fields for Expenditure Items: page 4 – 18.
7. **Quantity.** The quantity of units (the unit of measure is determined by the expenditure type). For example, on a timecard, you enter the quantity for professional labor in hours. You can enter a mixture of units, such as currency and miles, for an expense report.

If a currency amount is entered in this field, it is the Reimbursement Amount.

Reimbursement Amount. If the Reimbursement Currency is different from the Receipt Currency, and you enter receipt currency attributes, then the reimbursement amount is calculated automatically and displayed in this field. Alternatively, you can enter the reimbursement amount directly.

If you enter a value in this field, then the receipt currency attribute fields are disabled. This is because your entry is one of the following amounts:

- Reimbursement Amount. As described above, no conversion attributes are required if you enter the reimbursement amount.
 - Quantity. The quantity for an expenditure item with an associated cost rate, in which case there is no associated Receipt Currency Amount to be converted.
8. **Comment.** Optionally enter a free text Comment.
 9. Save your work.

Entering Currency Fields

To enable you to process transactions that involve currencies other than the project currency, Projects provides currency fields for expenditures and expenditure items.

Currency Fields for Expenditures

If you are entering an expense report, you can specify any Reimbursement Currency. You specify one reimbursement currency for the entire expenditure (rather than for each expenditure item).

The expenditure currency fields for expense reports are:

Field	Description
Functional Currency	This is a display-only field that shows the functional currency of the expenditure operating unit.
Reimbursement Currency	This field defaults to the functional currency. If you want to be reimbursed in a different currency from the functional currency, enter the reimbursement currency.
Functional Rate Date	The exchange rate date that will be used to determine the exchange rate to convert the reimbursement currency to the functional currency. You can accept the default rate date, or override it. The default value of this field depends on the value of Exchange Rate Date Type in the Currency Implementation Options: – If the implementation option is set to PA Period Ending Date, no default date is displayed. You can enter a date, or the cost distribution processes will calculate the exchange rate date. – If the implementation option is set to Expenditure Item Date, Oracle Projects uses the transaction date as the default date. See: Currency Implementation Options: page 17 – 60.
Functional Rate Type	The exchange rate type that will be used to convert the reimbursement currency to the functional currency. You can accept the default rate type, or override it.
Functional Exchange Rate	The exchange rate that will be used to convert the reimbursement currency to the functional currency. If the Functional Rate Type is USER, you can enter a value in this field. Otherwise, this field is calculated by the system, based on the rate date and rate type.

Table 4 – 2 (Page 1 of 1)

For information about entering foreign currency transactions, including how default currency attributes are determined, see: Entering Foreign Currency Transactions: page 4 – 59.

Currency Fields for Expenditure Items

The currency fields for expenditure items are shown in Table 4 – 3.

Notes

- ☐ In general, when rate type, rate date, and rate fields are displayed for a currency, you can enter the rate only if the rate type is User. Otherwise, the rate is calculated by the system based on the rate type and rate date.
- ☐ The Expenditure Items window is a folder–type window, and many of the fields are not displayed in the default folder. You may want to create folders that display the fields you need, for the types of entries you need to make. For example, you may need to display Receipt Currency fields for expense reports, if expense report items originate in a currency other than the reimbursement currency.

For information about folder forms see: *Administering Folders (Oracle Applications System Administrator's Guide)*.
- ☐ Each of the attributes is determined separately. That is, if a rate type is overridden at one level, but no rate date is entered at that level, the entered rate type is used and the default rate date is used.
- ☐ For Timecards, Projects displays currency attributes only for the project currency.

Field	Description: Expense Reports	Description: Expenditures Other than Expense Reports
Reimbursement Currency	The reimbursement currency.	Not displayed.
Transaction Currency	Not displayed.	The transaction currency code. Enter the code for the currency in which the transaction occurred.
Functional Currency	The currency code for the functional currency (display only).	The currency code for the functional currency (display only).

Table 4 – 3 (Page 1 of 2)

Field	Description: Expense Reports	Description: Expenditures Other than Expense Reports
Functional Rate Type Functional Rate Date Functional Exchange Rate	These fields are display-only, since they are controlled for the entire expenditure in the Expenditure window region.	The currency attributes for the functional currency.
Project Currency	The currency code for the project currency (display only).	The currency code for the project currency (display only).
Project Rate Type Project Rate Date Project Exchange Rate	If the project currency is the same as the functional currency, these fields are display-only. They display the same values as the functional currency attribute fields. If the project currency is not the same as the functional currency, you can enter these currency attributes.	If the project currency is the same as the functional currency, these fields are display-only. They display the same values as the functional currency attribute fields. If the project currency is not the same as the functional currency, you can enter these currency attributes.
Receipt Currency	The currency in which the expenditure item originally occurred. NOTE: If a cost rate is associated with an expenditure item, the receipt currency fields are disabled for that item.	Not displayed.
Receipt Amount	The amount of the expenditure item in the receipt currency (the actual amount paid for goods or services in the original currency.)	Not displayed.
Receipt Exchange Rate	The exchange rate to convert from the receipt currency to the reimbursement currency.	Not displayed.

Table 4 – 3 (Page 2 of 2)

See Also

Overview of Expenditures: page 4 – 2

Copying an Expenditure Batch

If you frequently enter similar groups of timecard expenditures, you can reduce manual data entry by copying data from one week to the next. The Copy function copies all expenditures and, optionally, all expenditure items from a specified source batch. Then you need to revise only the items that are different in the new batch. There are two approaches to copying expenditure data:

- Create, then copy a batch template
- Copy expenditures from any previously created timecard batch.

► To create a batch template:

A timecard template is a generic batch containing the most frequently used data elements. For example, if you expect timecards from certain employees to be submitted each week, you can create a template that contains just the expenditure information. Or, if employees generally perform the same tasks for the same projects week after week, you can enter expenditure items in your template as well.

1. To create a batch template, follow the normal steps for creating a batch. See: *Entering Pre-Approved Expenditure Batches*: page 4 – 12.



Suggestion: Give the batch a name that will indicate it is a template.

2. Do not submit the batch, since the batch template does not contain real expenditures and expenditure items.

► To copy a batch:

1. Navigate to the Expenditure Batches window.
2. Enter the Batch name, Ending Date, Class, and Description.
3. Save your new batch.
4. Choose Copy From.
5. In the Copy From Expenditure Batch window, enter the name and description of the batch you want to copy. If you want to copy the

expenditure items associated with the batch, choose Copy Expenditure Items.

6. Choose OK.
7. Revise the batch information (such as the Expenditure Ending date), make any changes to individual expenditure items, and save your work.

Verifying Control Totals and Control Counts

When you enter a Control Total or Control Count on the Expenditure Batch window, or enter a Control Total on the Expenditures window, Oracle Projects keeps track of the running total and running count of expenditures within a batch, and the running total for expenditure items associated with an expenditure. As you enter expenditure items, the system maintains a running total of each amount.

- To verify that the total hours, usages, expenses, or miscellaneous, burden, inventory, or work in process transaction amounts entered for a batch match the total recorded on the paper expenditure reports, calculate the total Units of Measure in the batch and enter the result as the Control Total.

The Running Total field will tabulate a total only if each expenditure item in the batch uses the same Unit of Measure.

- To verify that the total number of expenditures entered matches the total number of expenditures in the batch, count the paper expenditure records and enter the result as the control Count.

Oracle Projects verifies control totals and control counts when you submit a batch. If the running total or running count does not equal your control totals, the system does not let you submit the expenditure batch until your totals match. If you do not enter control totals, the system does not check that control totals match.

Submitting an Expenditure Batch

After entering a batch of expenditures and verifying data entry, you submit the batch for review. Your supervisor typically reviews the batch and either releases it for cost distribution or returns it to you to rework. When you rework a batch, the status changes from Submitted to Working.

You can choose Unreleased from the Status poplist in the Find Expenditure Batches window to retrieve both Working and Submitted expenditure batches.

► **To submit a batch for review:**

1. Navigate to the Expenditure Batches window and choose the batch you want to submit.



Suggestion: You can use the Find Expenditure Batches window to query a particular batch in the Expenditure Batches window.

2. Choose the Submit button. The status of the batch changes from Working to Submitted after Oracle Projects validates the control totals and counts.

See Also

Verifying Control Totals and Control Counts: page 4 – 21

Correcting Expenditure Batches: page 4 – 24

Reviewing and Releasing Expenditure Batches

Once submitted, batches of pre-approved expenditures are reviewed and released for cost distribution or returned to the user who entered the batch for reworking. You release a batch of expenditures by changing its status from Submitted to Released. Releasing a batch automatically releases all the expenditures and expenditure items in the batch.

► **To review an expenditure batch:**

- Find the batch you want to review in the Find Expenditure Batches window. In the Expenditure Batches Summary window, choose the batch you want to review and choose Open to review information for the batch, or choose Expenditures to review expenditure and expenditure item information.

► **To release an expenditure batch:**

- From the Expenditure Batches or the Expenditure Batches Summary windows, select the batch or batches you want to release and choose Release. See: *Selecting Multiple Records Oracle Applications User's Guide*.

See Also

Correcting Expenditure Batches: page 4 – 24

Reversing an Expenditure Batch

The Reverse button is enabled only if the current batch is released. In addition, an expenditure batch can be reversed only if the transaction source of the batch allows adjustments.

When you reverse an expenditure batch, all the expenditure items are reversed except the following:

- Related items
- Expenditure items that have already been reversed
- Reversing items (net zero adjusted items)
- Expenditure items that were created as a result of a transfer adjustment

► **To reverse an expenditure batch:**

1. Navigate to the Find Expenditure Batches window.
2. Find the batch that you want to reverse.
3. In the Expenditure Batches window, choose Reverse.
4. In the Reverse an Expenditure Batch window, enter the name of the new reversing batch and choose OK .

When the reversal is complete, Oracle Projects displays the number of items that were adjusted and the number of items that were rejected.

Correcting Expenditure Batches

After you submit a batch, you can add, delete, and revise expenditures and expenditure items. You also must correct a batch if your supervisor rejects and returns a submitted batch to you.

If the batch has a status of Submitted, locate the batch, return its status to Working, and change the expenditure or expenditure item before resubmitting the batch.

If the batch has a status of Released, correct the individual expenditure items by reversing the full amount of the original item and then entering the correct information. For example, if you entered six hours on a timecard expenditure item when the correct number of hours is four, create a reversing item equal to a negative six hours, then add a new expenditure item of four hours. To enter the corrected items, create a new batch and then follow the normal steps for submitting and releasing expenditures.

► **To rework (correct) a submitted or returned batch:**

1. Navigate to the Find Expenditure Batches window and find the expenditure batch you want to rework.
2. From the Expenditure Batches window, choose Rework. The status of the batch changes from Submitted to Working.
3. Choose the Expenditures button to display the expenditures in the Expenditures window, then make corrections to any expenditure or expenditure items in the batch.
4. Save your work and submit the batch again. See: Submitting an Expenditure Batch: page 4 – 21.

► **To correct a released expenditure item:**

1. Create a new batch for the correction items. The Expenditure Ending date must identify the week that includes the expenditure item you are reversing. See: Entering Pre-Approved Expenditures: page 4 – 12.

Optionally check the All Negative Transactions Entered As Unmatched check box if you want to enter transactions with negative amounts and do not want Oracle Projects to search for corresponding existing transactions.

2. In the Expenditure Items window, select the Reverse Original button.

Instead of choosing the Reverse Original button, you can enter a negative amount in the Quantity field. Negative amounts are preceded by a minus (“-”) sign. If you have checked the All Negative Transactions Entered As Unmatched check box, Oracle Projects will not search for corresponding existing transactions. Otherwise, Oracle Projects will prompt you to confirm the creation of each negative transaction that does not have a corresponding existing transaction.

3. In the Reverse Expenditure Items window, fill in all the fields to specify the item you want to reverse. Then choose the Reversal button.

The system inserts a reversing (negative) expenditure item into the batch.

4. Finish entering the batch. Then submit the batch as usual.

Expenditure batches can contain both positive and negative transactions.

See Also

Entering Pre-Approved Expenditures: page 4 – 12

Submitting an Expenditure Batch: page 4 – 21

Reviewing and Releasing Expenditure Batches: page 4 – 22

Expenditure Adjustments

Oracle Projects provides powerful features which allow you to:

- adjust expenditure items on your projects
- interface the adjustments to other Oracle Applications
- report the audit trail of the adjustments

You can make adjustments to expenditure items after the items have been costed, revenue distributed, and invoiced. Oracle Projects automatically processes the adjusted items and interfaces the adjusting accounting transactions to other Oracle Applications.

The project status of a project can restrict your ability to enter adjustments to project transactions. See : Project Statuses: page 17 – 183.

Audit Reporting for Expenditure Adjustments

Oracle Projects provides an audit trail of all adjustments performed on an expenditure item. The audit trail records the following information about the adjustment:

- The name of the user who performed the adjustment
- The type of adjustment action performed
- The date and time that the adjustment was performed
- The window from which the adjustment action was performed

Oracle Projects also records the audit trail to the original item for transfers, splits, and corrections to approved items. With this audit trail, you can identify where an item was transferred or where an item was transferred from.

You can review the expenditure adjustment audit information for a project in the AUD:Project Expenditure Adjustment Activity report. You can review the transfer activity for a project using the MGT: Transfer Activity report.

See Also

Project Expenditure Adjustment Activity: page 10 – 23

Transfer Activity Report: page 10 – 23

Types of Expenditure Item Adjustments

This section describes the types of adjustments you can make to expenditure items. Whether you can adjust expenditure items depends on:

- the project status of the project charged
- the transaction source (if the expenditure item was imported via Transaction Import)

For more information, see: Adjusting Expenditure Items: page 4 – 53.
Except where noted, you can also adjust project invoice lines. See: Adjusting Project Invoices: page 8 – 64.

See Also

Project Statuses: page 17 – 183

Transaction Sources: page 17 – 95

Correcting Approved Expenditure Items

You can correct the following attributes of an approved expenditure item using the Pre-Approved Expenditure Entry windows.

- date
- expenditure type
- project
- task
- amount

You make the corrections by reversing the original item and then creating a new item using the correct information. You cannot correct these items using the Expenditure Items window.

You can also change the project and task assignment of an expenditure item by selecting the Transfer adjustment action.

You cannot correct the amount, date, expenditure type, or supplier of supplier invoice items in Oracle Projects. You must correct these attributes of supplier invoice item in Oracle Payables.

You must correct expenditure items imported from Oracle Inventory or Oracle Manufacturing in their respective systems. You cannot reverse or correct expenditure items from these applications in Oracle Projects.

Changing Billable Status

Use the adjustment actions Billable to Non-Billable and Non-Billable to Billable to change the billable status of an expenditure item.

- A billable item accrues work-based revenue and can be invoiced.
- A non-billable item does not accrue work-based revenue and is not invoiced.

You may want to check the setup of the billable status of your project to reduce the number of items you need to adjust for billable classification. You can define tasks as billable or non-billable; you can further specify which items are non-billable using transaction controls. See: Transaction Controls: page 4 – 62.

Changing Capitalizable Status

Use the adjustment actions Capitalizable to Non-Capitalizable and Non-Capitalizable to Capitalizable to change the capitalizable status of an expenditure item.

- A capitalizable item can be grouped into an asset line you send to Oracle Assets.
- A non-capitalizable item cannot become an asset cost in Oracle Assets.

You can define tasks as capitalizable or non-capitalizable; you can further specify which items are non-capitalizable using transaction controls. See: Transaction Controls: page 4 – 62.

Billing Hold

You can place an expenditure item on billing hold. An item on billing hold is not included on an invoice until you release the billing hold on the item.

One-Time Hold

You can place an expenditure item on one-time billing hold. An item on one-time billing hold is not billed on the current invoice but is

eligible for billing on the next invoice. The one-time billing hold is released when you release the current invoice.

Release Hold

If you have placed an expenditure item on billing hold, you use the release hold to take it off hold so the item can be billed.

Recalculate Burden Cost

You can recalculate the burden cost of an expenditure item if you find that the burdened cost amount is incorrect. To produce correct recalculation results, you must correct the source of the problem before redistributing the items.

Notes

- ☐ When you select Recalculate Burden Cost for a burden transaction, no recalculation of the burden amount takes place.
- ☐ You cannot recalculate the burden cost of an invoice line.

Recalculate Raw Cost

You can recalculate the raw cost of an expenditure item if you find that the raw cost amount is incorrect. To produce correct recalculation results, you must correct the source of the problem before redistributing the item.

Notes

- ☐ You cannot recalculate raw cost on expenditure items that were imported through Transaction Import as costed items.
- ☐ You cannot recalculate the raw cost of an invoice line.

Recalculate Revenue

You can recalculate revenue if you find that:

- The revenue or bill amount is incorrect due to incorrect bill rate or markup
- AutoAccounting is incorrect

You must correct the source of the problem before redistributing the items.

Recalculate Cost/Revenue

You can recalculate cost and revenue if you find that:

- The raw cost rate is incorrect
- The burden cost multiplier is incorrect
- AutoAccounting is incorrect

You must correct the source of the problem before redistributing the items.

If you recalculate cost, the revenue is automatically adjusted to ensure that revenue that is based on the cost (with markup or labor multipliers) is correct.

Change Comment

You can edit the expenditure comment of an item. You can use this adjustment to make the expenditure comment clearer if you are including the comment on an invoice backup report.

Split

You can split an item into two items so that you can process the two resulting split items differently.

For example, you may have an item for 10 hours, of which you want 6 hours to be billable and 4 hours to be non-billable. You would split the item of 10 hours into two items of 6 hours and 4 hours, marking the 6 hours as billable and 4 hours as non-billable.

The resulting split items are charged to the same project and task as the original item.

Transfer

You can transfer an item from one project and task to another project and task.

Oracle Projects provides security as to which employees can transfer items between projects. Cross-project users can transfer to all projects.

Key members can transfer to projects to which they are assigned. See: Project-Based Security in Oracle Projects: page 15 – 13.

Oracle Projects performs a standard validation on all transferred items. For a description of the standard validation process and resulting rejection reasons, see: Expenditure Item Validation: page 4 – 3. Oracle Projects also ensures that you only transfer items which pass the charge controls of the project and task to which you are transferring. If the item(s) you are transferring do not pass the new project and task's charge controls, you cannot transfer the item(s). See: Transaction Controls: page 4 – 62.

Change Currency Attributes

You can change the functional or project currency attributes of multi-currency transactions. When you select Change Functional Currency Attributes or Change Project Currency Attributes from the Reports menu, a window is displayed where you can enter changes in the following fields:

- Rate Type
- Rate Date
- Exchange Rate

The windows display the project or functional currency, depending on which currency you have selected, as well as the transaction currency.

The same conditions apply to changes in currency attributes that apply during transaction entry. See: Entering Currency Fields: page 4 – 16.

You can also change currency attributes for an expenditure using the Mass Adjustments feature. When you select Change Functional Currency Attributes or Change Project Currency Attributes under Mass Adjustments, most of the validations are performed by the costing program. See: Mass Adjustment of Expenditures: page 4 – 55.

If the project currency and the functional currency for an expenditure item are the same, only the Function Currency Attributes option is displayed on the Reports menu. Any changes you make to the functional currency attribute are copied to the project currency attributes.

Restrictions for Converted Items

You can mark expenditure items as converted when you load expenditure items from another system into Oracle Projects during conversion. To do this, you set the CONVERTED_FLAG to Y (for Yes) in the PA_EXPENDITURE_ITEMS_ALL table.

Some adjustment actions are not permitted for converted items. Table 4–4 shows which adjustment actions are allowed for converted items.

Adjustment Action	Allowed for Converted Items
Correct Approved Expenditure Item	YES
Allow Billing	YES
Billable to Non-Billable	
Non-Billable to Billable	
Capitalizable to Non-Capitalizable	
Non-Capitalizable to Capitalizable	
Billing Hold	YES
One-Time Hold	YES
Release Hold	YES
Recalculate Burden Cost	
Recalculate Raw Cost	
Recalculate Revenue	
Recalculate Cost/Revenue	
Change Comment	YES
Split	
Transfer	

Table 4–4 (Page 1 of 1)

If an item is marked as converted, Oracle Projects assumes that the item does not have all the data required to support the recalculation of cost, revenue, and invoice. Therefore, you cannot perform the adjustment actions that may result in the recalculation of cost, revenue, or invoices for converted items.

Marking items as converted has a similar effect to enabling the transaction source attribute that disallows adjustments on imported transactions originating from that source.

Adjustments to Multi-Currency Transactions

When multi-currency transactions are adjusted, the system must determine currency attributes for the transactions that result.

If the original item is not an imported, accounted item, the following rules apply:

- The original expenditure item is reversed, with all the same amounts and currency attributes as the original item.
- The new expenditure items are created and treated as new transactions, following the standard default logic for currency attributes.

Reversals and splits

For reversals and splits, the reversing and new items have the same currency attributes as the original transaction.

Transfers

For a transfer, the reversing item has the same currency attributes as the original transaction. For the new item, the cost distribution program uses the conversion rules for a new transaction, taking the default currency attributes from the destination project. See: Converting Foreign Currencies: page 4 – 59.

Adjustments to Accounted Imported Transactions

Imported, accounted transactions can be adjusted in Oracle Projects only if `ALLOW_ADJUSTMENTS_FLAG` is set to `Y` for the transaction source.

For imported multi-currency transactions that have been posted to GL by the feeder system, adjustments are processed as shown below:

For these adjustments, both the reversing transactions and their cost distribution lines are created online.

Recalculation Adjustments

The cost distributed flag for the item is set to `N`, and the transaction is treated as costed and burdened.

The cost distribution program recalculates project currency amounts. All other amounts are copied from the original transaction.

The cost distribution program creates a reversing cost distribution line and a new cost distribution line. Both lines will be interfaced to GL (their "transfer status" is set to *P* (Pending)).

Transfers and Splits

Reversing items are created with the attributes of the original item.

Transfers: For the new item, all amounts and attributes are copied from the original item, except for the project currency amounts. For the project currency amounts, the cost distribution program uses the conversion rules for a new transaction, taking the default currency attributes from the destination project. See: *Converting Foreign Currencies*: page 4 – 59.

Splits: For new items, all currency amounts are prorated based on the split ratio.

Both reversing and new items create cost distribution lines that will be interfaced to GL (their "transfer status" is set to *P* (Pending)).

Adjustments to Burden Transactions

You can perform adjustments on burden transactions that are not system-generated.

You can perform billing adjustments on burden transaction expenditure items that are created by the Create and Distribute Burden Transactions process. For example, the items can be placed on billing hold. To make any other type of adjustment on a system-generated burden transaction, you must adjust the source expenditure item related to these burden transactions.

You can adjust a burden transaction that is imported via Transaction Import only if `ALLOW_ADJUSTMENT_FLAG` is set to *Y* for the transaction. For the predefined transaction sources Inventory, Inventory Misc, and Work In Process, `ALLOW_ADJUSTMENT_FLAG` is set to *N*.

Adjustments to Related Transactions

Whenever an adjustment is performed on a source transaction that requires the item to be backed out (transfer, split, manual reversal through the Pre-Approved Expenditure form), Oracle Projects creates reversals for the related transactions of the source transaction. Oracle

Projects creates related items via labor transaction extensions. See also: Labor Transaction Extensions: page 19 – 34.

You cannot independently process related transactions from the source transactions. However, there are adjustment actions for which related transactions are processed with the source transaction.

Transfer

You can transfer only the source transaction. When you transfer the source transaction, Oracle Projects reverses the source transaction and the related transactions, and creates only the new source transaction in the destination project. Oracle Projects does not create related transactions in the destination project because the related transactions may not be appropriate under the conditions of the project.

You can create new related transactions using the labor transaction extension when the transferred source transaction is cost–distributed.

Split

You can split only the source transaction. When you split the source transaction, Oracle Projects reverses the source transaction and the related transactions, and creates the two new source transactions. Oracle Projects does not create related transactions in the destination project because the related transactions may not be appropriate under the conditions of the project.

You can create new related transactions using the labor transaction extension when the new source transactions are cost–distributed.

Recalc Cost/Revenue

You can mark only the source transaction for cost or revenue recalculation. However, when you mark the source transaction, Oracle Projects automatically marks the related transactions of the source transaction for recalculation.

Change Billable Status

You can change the billable status on both the source transaction and the related transactions independently. However, a reclassification on a source transaction only will not automatically result in the reclassification of related transactions since these related transactions may have been created with a billable status independent of the source

transaction. For example, you may create the source transaction as billable and the related transaction as non-billable.

Bill Hold/Release

You can perform bill holds and releases on both source transactions and related transactions independently. However, an action performed on a source transaction will not automatically result in the same action on the related transactions. For example, since the transactions are treated independently, a bill hold on a source transaction will not automatically place a bill hold on any related transactions.

Comment Change

You can change the comment on both the source transaction and the related transactions independently.

Manual Reversal

You can reverse source transactions using the Expenditures form. When you reverse a source transaction, Oracle Projects automatically reverses the related transactions. If you delete the source transaction, Oracle Projects automatically deletes the related transactions.

Reversal Using Transaction Import

You can reverse source transactions using Transaction Import. When you reverse a source transaction, Oracle Projects automatically reverses the related transactions if the transaction being loaded is an adjustment and the unmatched negative flag is set to No.

See Also

Transaction Controls: page 4 – 62

Adjusting Expenditure Items: page 4 – 53

Transferring Expenditure Items: page 4 – 55

Splitting Expenditure Items: page 4 – 56

Marking Items for Adjustments

When you select an adjustment action, the expenditure items are marked for adjustment processing. Most adjustment actions require additional processing to be completed.

Table 4 – 5 shows how each adjustment action marks expenditure items for adjustment processing.

- The first eleven adjustment actions update the expenditure item with the values as noted below for subsequent adjustment processing.
- The Change Comment adjustment action updates the comment and does not require additional adjustment processing.
- The Split and Transfer adjustment actions create reversing and new items to be processed.

Adjustment Action	Cost Distributed	Revenue Distributed	Billable / Capitalizable	Bill Hold	New Items Created
Billable to Non-Billable	No	No	No		
Non-Billable to Billable	No	No	Yes		
Capitalizable to Non-Capitalizable	No		No		
Non-Capitalizable to Capitalizable	No		Yes		
Billing Hold				Yes	
One-Time Hold				Once	
Release Hold				No	
Recalculate Burden Cost	No				
Recalculate Raw Cost	No	No			
Recalculate Revenue		No			
Recalculate Cost/Revenue	No	No			
Change Comment					
Split					Yes
Transfer					Yes

Table 4 – 5 How Adjustment Actions Mark Expenditure Items for Adjustment Processing (Page 1 of 1)

A billable reclassification requires an item to be re-costed so that the billable and non-billable costs are correctly maintained in the project summarization tables, and (optional) to change the assignment of the general ledger cost account. Also, if you change from billable to non-billable, the assignment of the GL cost account in AutoAccounting may change. The same is true for a capitalizable reclassification.

New Expenditure Items Resulting from Transfer and Split

When you transfer or split an item, the original item is reversed and new items are created automatically by Oracle Projects. These items are similar to the items that you create manually when you correct an approved expenditure item.

Table 4 – 6 shows the original item (Item 1) and the new items (Items 2 and 3) resulting from a transfer of an item from project TM1 to project SF1, task 2.

Item Number	Item Reversed	Expenditure Item Date	Expenditure Type	Project	Task	Quantity	Billable
1		01-JAN-96	Professional	TM1	1	10	Yes
2	1	01-JAN-96	Professional	TM1	1	-10	Yes
3		01-JAN-96	Professional	SF1	2	10	Yes

Table 4 – 6 Items Resulting from Transfer (Page 1 of 1)

The billable status of Item 3 is determined from the billable status of the project and task to which it is transferred.

Table 4 – 7 shows the original item (Item 1) and the new items (Items 2–4) resulting from a split. The original item had 10 billable hours, which are split into 6 billable hours and 4 non-billable hours. When you split an item, you specify the billable status and bill hold status of each of the two new items.

Item Number	Item Reversed	Expenditure Item Date	Expenditure Type	Project	Task	Quantity	Billable
1		01-JAN-96	Professional	TM1	1	10	Yes
2	1	01-JAN-96	Professional	TM1	1	-10	Yes
3		01-JAN-96	Professional	TM1	1	6	Yes
4		01-JAN-96	Professional	TM1	1	4	No

Table 4 – 7 Items Resulting from Split (Page 1 of 1)

Processing Adjustments

After you have performed the adjustment actions, you need to run the appropriate processes to process the adjustments.

The table below notes which processes to run to process each adjustment action.

Adjustment Action	Distribute Costs	Generate Asset Lines	Generate Draft Revenue	Generate Draft Invoices
Correct Approved Expenditure Item	Yes	Yes	Yes	Yes
Billable to Non-Billable	Yes		Yes	Yes
Non-Billable to Billable	Yes		Yes	Yes
Capitalizable to Non-Capitalizable	Yes	Yes		
Non-Capitalizable to Capitalizable	Yes	Yes		
Billing Hold				Yes
One-Time Hold				Yes
Release Hold				Yes
Recalculate Burden Cost	Yes	Yes	Yes	Yes
Recalculate Raw Cost	Yes	Yes	Yes	Yes
Recalculate Revenue			Yes	Yes
Recalculate Cost/Revenue	Yes	Yes	Yes	Yes
Change Comment				
Split	Yes	Yes	Yes	Yes
Transfer	Yes	Yes	Yes	Yes

Table 4 – 8 Programs to Run to Process Adjustments (Page 1 of 1)

You can use the Submit Request window to run the appropriate the processes for your project only.

You can also mark items for adjustment and allow the items to be processed automatically the next time you run the processes to distribute costs, generate asset lines, and generate draft revenue and invoices.

See Also

Submitting Requests: page 10 – 2

Results of Adjustment Processing

After you run the appropriate processes to recalculate the adjusted expenditure items, you can review the results of the adjustments.

Cost Adjustments

When an item marked for re-costing is processed, a cost adjustment results if one or more of the following attributes is different from the original value:

- Raw cost amount
- Burden cost amount
- Account to which the cost is charged
- Billable / Capitalizable status of the item

When the Distribute Costs program encounters an item requiring a cost adjustment, the program updates the expenditure item with the new raw and burden cost rates and amounts, and creates new cost distribution lines. The program creates a reversing cost distribution line and a new cost distribution line. These lines form the audit trail of cost adjustments.

Table 4 – 9 shows the cost distribution lines for an expenditure item that was re-costed due to a cost rate change a month after the original line was costed. Line 2 and 3 are new lines resulting from the cost adjustment. Line 2 reverses the same amount and account as Line 1. Line 3 uses the new cost multiplier and account based on current AutoAccounting rules.

Line Number	Line Reversed	Amount	Quantity	Billable	Account	GL Date
1		100	10	Yes	04.401.4100	31-JAN-94
2	1	-100	-10	Yes	04.401.4100	28-FEB-94
3		200	10	Yes	04.401.4100	28-FEB-94

Table 4 – 9 New Cost Distribution Lines Resulting from Cost Adjustment

You can review these distribution lines in the Cost Distribution Lines window.

Corrections to Approved Items, Transfers, and Splits

When processing a reversing item which resulted from a correction of an approved expenditure item, a transfer, or a split, the Distribute Costs program uses the same cost rate used by the original item to ensure that the cost nets to zero for the original and reversing item. The reversing item is charged to an account based on the current AutoAccounting rules.

The new positive item resulting from a correction of an approved expenditure item, a transfer, or a split are processed just as a new

expenditure item is processed; no special adjustment processing is performed on these items.

Interfacing Adjustments to General Ledger and Payables

The Interface process will send Lines 2 and 3 in the previous table to Oracle General Ledger or Oracle Payables to reflect the cost adjustment originating in Oracle Projects.

The cost adjustment lines are posted to the earliest open or future GL period. See also: Date Processing in Oracle Projects: page 15 – 3.

Lines 2 and 3 are posted to a new GL period of February 1994 since the original GL period of January 1994 was closed when the cost adjustment occurred.

Revenue Adjustments

When an item marked for recalculation of revenue is processed, revenue adjustments are created.

When the Generate Draft Revenue program encounters a item requiring a revenue adjustment, the program updates the expenditure item with the new revenue amount, and creates new revenue distribution lines. The program creates a reversing and new revenue distribution lines, which records the audit trail of revenue adjustments.

The example below shows the revenue distribution lines for an expenditure item with a revenue adjustment due to a change in a bill rate a month after the original revenue was posted. Line 2 and 3 are new lines resulting from the revenue adjustment. Line 2 reverses the same amount and account as Line 1. Line 3 has the new revenue amount based on the new bill rate/ markup and the account based on current AutoAccounting rules.

Line Number	Line Reversed	Amount	Account	Draft Revenue Number	Transfer Status	GL Date
1		100	04.401.3100	1	Accepted	31-JAN-96
2	1	-100	04.401.3100	2	Pending	28-FEB-96
3		200	04.401.3100	3	Pending	28-FEB-96

Table 4 – 10 New Revenue Distribution Lines Resulting from Revenue Adjustment (Page 1 of 1)

Each revenue distribution line is grouped into a draft revenue. A draft revenue may credit another draft revenue. Line 2 above is grouped into Draft Revenue 2, which credits Draft Revenue 1, in which Line 1 is grouped. Line 3 is included on a new draft revenue 3.

You can review these distribution lines in the Revenue Distribution Lines window. You also can view the distribution lines in the Revenue Line Details window accessed from the Revenue Review window.

Transfers, Splits, and Corrections to Approved Items

When processing a reversing item which resulted from a correction of an approved expenditure item, a transfer, or a split, the Generate Draft Revenue program reverses the revenue of the original item to ensure that the revenue nets to zero for the original and reversing item. The reversing item is charged to a revenue account based on the original distribution line.

The new positive item resulting from a correction of an approved expenditure item, a transfer, or a split are processed just as a new expenditure item is processed; no special adjustment processing is performed on these items.

Interfacing Adjustments to Oracle General Ledger

The Interface Revenue to General Ledger process will send Lines 2 and 3 to Oracle General Ledger to reflect the revenue adjustment originating in Oracle Projects.

The revenue adjustment lines are posted to the earliest open or future GL period. See also: Date Processing in Oracle Projects: page 15 – 3.

Lines 2 and 3 are posted to a new GL period of February 1994 since the original GL period of January 1994 was closed when the revenue adjustment occurred.

Invoice Adjustments

If an item's bill amount changes before it has been billed on a released invoice, the item is billed with the latest bill amount. If an item's bill amount changes after it has been invoiced, a crediting invoice and new invoice are automatically created.

The Generate Draft Invoice program compares the bill amount on the item's revenue distribution lines to determine if the item needs to be adjusted. When program encounters a item requiring a invoice adjustment, it creates a crediting invoice and a new invoice.

The example below shows the invoices created for the same item listed above for the revenue adjustments example. Assume the project's invoices only bill the one item and that the item was originally billed on Invoice 1 in January. Invoices 2 and 3 are new invoices resulting from the invoice adjustment.

Invoice Number	Invoice Credited	Amount	Transfer Status	GL Date
1		100	Accepted	31-JAN-96
2	1	-100	Pending	28-FEB-96
3		200	Pending	28-FEB-96

Table 4 – 11 New Invoices Resulting for Invoice Adjustment (Page 1 of 1)

You can review these invoices in the Invoice Summary window in the Invoice Review window.

Transfers, Splits, and Corrections to Approved Items

When processing a reversing item which resulted from a correction of an approved expenditure item, a transfer, or a split, the Generate Draft Invoice program credits the invoice on which the original item was billed.

The new positive item resulting from a correction of an approved expenditure item, a transfer, or a split are processed just as a new expenditure item is processed; no special adjustment processing is performed on these items.

Interfacing Adjustments to Oracle Receivables

The Interface Invoices to Receivables process will send Invoices 2 and 3 to Oracle Receivables.

The invoices are posted to the open or future GL period in which the invoice date falls in Oracle Receivables.

Lines 2 and 3 are posted to a new GL period of February 1994 since the original GL period of January 1994 was closed when the invoice adjustment occurred.

Refer to the following essay regarding how a credit memo is interfaced to Oracle Receivables, if the outstanding balance is less than the credit memo amount.

See Also

Integrating with Oracle Receivables: page 13 – 60

Adjustments to Supplier Invoices

You can perform a number of adjustments to supplier invoices in Oracle Projects and Oracle Payables. In Oracle Projects, you can perform the following adjustments on a supplier invoice:

- Transfer and item to another project or task
- Split an item
- Reclassify an item’s billable or capitalizable status

Example Original invoice number 123 for \$100 is entered in Oracle Payables with one invoice distribution line charged to project A and interfaced to Oracle Projects. An Oracle Projects project manager transfers the item from project A to project B, resulting in a net zero different accounting transaction. The adjusting transactions result in the following transactions in Oracle Projects. In addition, the adjusting transactions, lines 2 and 3, are interfaced to Oracle Payables, and attached to the originating invoice, 123. Oracle Projects provides the amount, the accounts, and the GL date to which the transactions are to be posted

Item	Project	Amount	Account	Comment
1	A	100	01.101.5200	Entered in AP
2	A	(100)	01.101.5200	Created in PA and interfaced to AP via the transfer process
3	B	100	02.201.5200	Adjusted in PA and interfaced to AP via the transfer process

Table 4 – 12 (Page 1 of 1)

In Oracle Payables, you can perform the following adjustment on a project-related supplier invoice:

- Invoice amount
- Supplier
- Expenditure type

Supplier Invoice Adjustments in Oracle Projects

- **To process supplier invoice adjustments from Oracle Projects to Oracle Payables:**
 1. Perform the adjustment in Oracle Projects.

2. Process the adjustment by running the PRC: Distribute Supplier Invoice Adjustment Costs process, or you can submit the streamline process Distribute and Interface Supplier Invoice Adjustments to Payables. If you run the streamline process, you can skip Step 3.
3. Interface the supplier invoice adjustments to Oracle Payables using the PRC: Interface Supplier Invoice Adjustment Costs to Payables process

All new invoice lines created from the adjustment are linked to the originating invoice in Oracle Payables. This allows you to reconcile all project-related supplier invoices in Oracle Payables, and accurately account for your cash books if you use Cash Basis Accounting.

4. Run AutoApproval in Oracle Payables to approve the new invoice distribution lines.
5. Post the supplier invoices from Oracle Payables to Oracle General Ledger.

See Also

Integrating with Oracle Purchasing and Oracle Payables: Adjustments: page 13 – 55

Integrating with Oracle Purchasing and Oracle Payables: Restrictions on Supplier Invoice Adjustments: page 13 – 58

Supplier Invoice Adjustments in Oracle Payables

► To process supplier invoice adjustments from Oracle Payables to Oracle Projects:

1. Perform the adjustment in Oracle Payables,
2. Run AutoApproval in Oracle Payables to approve the new invoice distribution lines.
3. Post the supplier invoices from Oracle Payables to Oracle General Ledger.
4. Send the adjustment to Oracle Projects using the Oracle Projects PRC: Interface Supplier Invoices from Payables process.

Before interfacing adjustments to Oracle Projects, the process checks whether the original and adjusting invoice items net to zero. If so, then neither item is transferred to Oracle Projects.

See Also

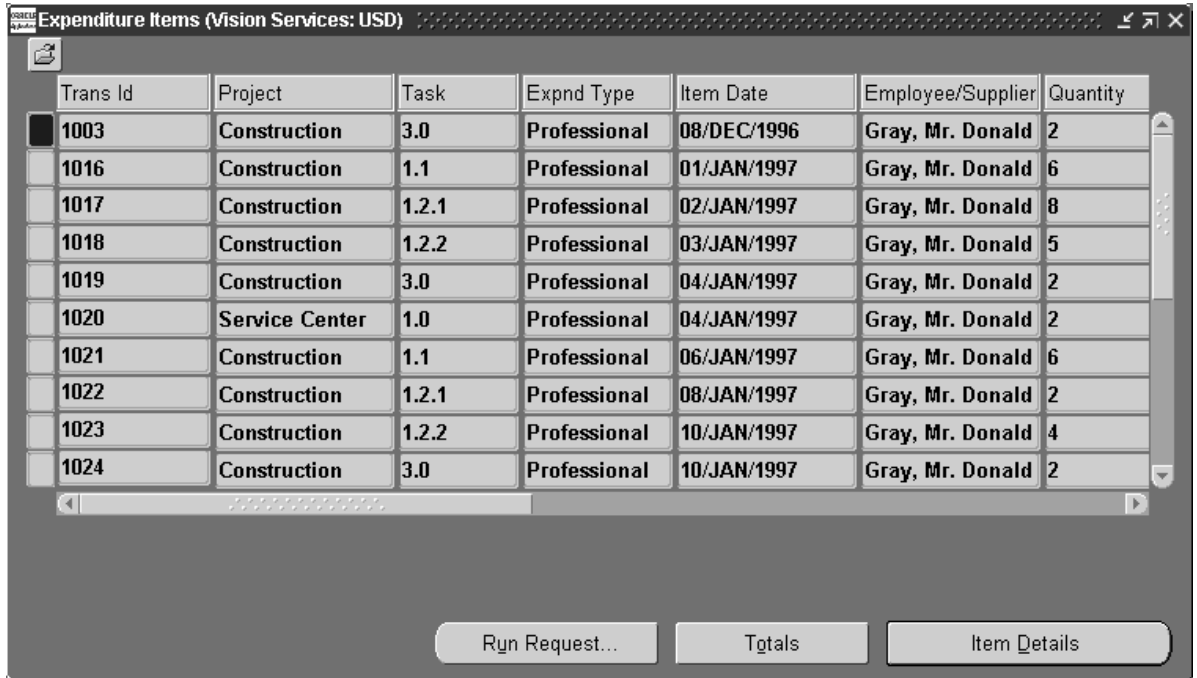
Interface Supplier Invoices from Payables: page 11 – 55

Submitting Requests: page 10 – 2

Payables Approval *Oracle Payables User's Guide*

Payables Transfer to General Ledger Program *Oracle Payables User's Guide*

Viewing Expenditure Items



Trans Id	Project	Task	Expnd Type	Item Date	Employee/Supplier	Quantity
1003	Construction	3.0	Professional	08/DEC/1996	Gray, Mr. Donald	2
1016	Construction	1.1	Professional	01/JAN/1997	Gray, Mr. Donald	6
1017	Construction	1.2.1	Professional	02/JAN/1997	Gray, Mr. Donald	8
1018	Construction	1.2.2	Professional	03/JAN/1997	Gray, Mr. Donald	5
1019	Construction	3.0	Professional	04/JAN/1997	Gray, Mr. Donald	2
1020	Service Center	1.0	Professional	04/JAN/1997	Gray, Mr. Donald	2
1021	Construction	1.1	Professional	06/JAN/1997	Gray, Mr. Donald	6
1022	Construction	1.2.1	Professional	08/JAN/1997	Gray, Mr. Donald	2
1023	Construction	1.2.2	Professional	10/JAN/1997	Gray, Mr. Donald	4
1024	Construction	3.0	Professional	10/JAN/1997	Gray, Mr. Donald	2

Run Request... Totals Item Details

Use this window to review a project's expenditure items. You can see the amount and type of expenditure items charged to a project, the date an expenditure item occurred, accrued revenue, and other information. You can also drill down to Oracle Payables to view the Invoice Overview form, or to Oracle General Ledger to view T-accounts.

► **To view expenditure items (perform an expenditure inquiry):**

1. Navigate to the Find Project Expenditure Items or Find Expenditure Items window.

Your ability to navigate to either window (by selecting *Project* or *All*) depends on your user responsibility. If you select *Project*, you can view expenditure items for a single project. If your system uses project security, you can select only projects that you are allowed to see. If you select *All*, you can view expenditure items across projects, and can structure your query to retrieve information across projects. No project security is enforced.
2. In the Find Expenditure Items window, enter your search criteria.
See: Expenditure Items Windows Reference: page 4 – 51.

3. Choose **Find** if you want to execute the search, or choose **Mass Adjust** if you want to process mass adjustment of expenditures. See: Mass Adjustment of Expenditures: page 4 – 55.
4. From the Expenditure Items window, choose:
 - **Run Request** to create Project Streamline Requests to process adjustments. You can select multiple processes to run for your project. The requests will run in the correct order. See: Adjusting Expenditure Items: page 4 – 53.
 - **Totals** to view the totals for the expenditure items returned based on your search criteria.

This window does not display events. If your project uses event-based or cost-to-cost revenue accrual or invoice generation, use the Events window to view the total project revenue and bill amounts.

- **Item Details** to select a window for reviewing the details of this expenditure item. The Inquiry Options window will be displayed, from which you can choose one of the following options:
 - Choose **Cost Distribution Lines** to view individual transactions and the debit and credit GL accounts charged for raw and burdened costs for each expenditure item. You can also view other information about the cost lines, such as PA and GL period and interface status and the rejection reason if transactions could not be interfaced.
 - Choose **Revenue Distribution Lines** to view the revenue transactions generated for a specific expenditure item. The GL account credited for the revenue is displayed. You can also see the GL and PA posting period for the revenue and the interface status. The rejection reason will be displayed for any transactions that are rejected during the interface to GL.
 - Choose **AP Invoice** to drill down to the Invoice Overview form in Oracle Payables. (This option is only enabled for expenditure items whose expenditure type class is either Supplier Invoices or Expense Reports.)

You can also view rejection reasons for transactions rejected during the costing or revenue generation processes from the Expenditure Items window. From the Folder menu, choose Show Field and select either Cost Distr. Rejection or Revenue Distr. Rejection.

Viewing Accounting Lines

View Expenditure Accounting (Vision Services:USD) - Cost, 1324

Trans Class	Line Num	Line Type	Account	Debit (USD)	Credit (USD)
Cost	1	Raw Debit	01-420-7020-000	100.00	
Cost	1	Raw Credit	01-000-2410-000		100.00
Cost	2	Burdened Deb	01-000-1580-000	225.00	
Cost	3	Burdened Cred	01-420-7020-000		225.00
Cost	4	Raw Debit	01-420-7020-000	<100.00>	
Cost	4	Raw Credit	01-000-2410-000		<100.00>
Cost	5	Raw Debit	01-720-7580-000	100.00	
Cost	5	Raw Credit	01-000-2410-000		100.00
				325.00	325.00

Account Desc: **Vision Services (USA)-Consulting-Labor Burden Allocated-No Product**

Project Name: **Construction** Task Name: **Foundation**

Expnd Type: **Professional** Item Date: **31/DEC/1996**

Expnd Org: **Consulting-East** Accounting Date: **31/JAN/1997**

Alternate Currency T Accounts

You can see how a transaction will affect the account balances in your general ledger by viewing the detail accounting lines for the transaction as balanced accounting entries (debits equal credits) or T-accounts.

► To view accounting lines:

1. Query the invoice transaction you want to view.
2. Choose View Accounting from the Tools menu.

You see the View Invoice Accounting window.

The View Invoice Accounting window is a folder form that you can customize to display additional columns. See: Customizing the Presentation of Data in a Folder *Oracle Applications User's Guide*.

3. (Optional) To view the accounting detail for the selected line as T-accounts, choose T-Accounts. In the Options window that opens,

select from the Default Window poplist, and then choose from the window buttons to drill down in General Ledger.

See: Viewing T–Accounts, *Oracle General Ledger User’s Guide*

See Also

Expenditure Type Classes: page 17 – 78

Oracle Applications System Administrator’s Guide

Drilling Down to Oracle Projects from Oracle General Ledger

From General Ledger, you can drill down to subledger details from the Account Inquiry, Enter Journals, or View Journals windows for journals that have specific journal sources assigned to them. For example, if a journal source is Projects, you can drill down to the transaction details in Oracle Projects.

Depending on the nature of the originating Projects transaction, drilling down from General Ledger will open the Payables Invoice Accounting or Payables Payment Accounting window.

Drilling Down Further From the Payables Invoice Accounting or Payables Payment Accounting window, you can drill down even further to view detail transactions or you can choose to view the underlying transaction accounting.

► **To drill down to detail transactions or to view transaction accounting:**

1. From the Payables Invoice Accounting or Payables Payment Accounting window, select a detail accounting line.
2. Choose the Show Transaction button to view detail transactions.
3. Choose the Show Transaction Accounting button to view the transaction accounting.

Expenditure Items Windows Reference

Find Expenditure Items (Vision Services: USD)

Project Number	Research & Development	Project Name	Research & Development
Task Number	2.0	Task Name	Design Project
Employee Name	Gray, Mr. Donald R	Employee Number	33
Supplier Name		Supplier Number	
Expenditure Org		Job	
Expenditure Category	Travel	Expenditure Type	
Non-Labor Resource		Resource Org	
Trans Id			
Item Dates			
Expnd Ending Dates			
Expenditure Batch			
Transaction Source			
☐ Exclude Net Zero Items			

Billing Status

Billable	
Billing Hold	
Billed	

Buttons: Mass Adjust, Clear, Find

Find Expenditure Items window

Use the Find Expenditure Items window to enter search criteria for expenditures and expenditure items.

Item Dates: The date of the expenditure items you want to find. You can enter a date range, or either a start or end date.

Exp Ending Dates: The expenditure ending dates of the items you want to find. You can enter a date range, or either a start or end date.

Billing Status: You can choose from the following status types:

Billable	Choose Yes to view only billable expenditure items.
Billing Hold	Choose Yes to view expenditure items that are on hold indefinitely. Choose No to view items that are not on hold. Choose Both to view items that are on both one-time hold, and on hold indefinitely.

	Choose Once to view expenditure items that are on one-time hold from this project's next invoice.
Billed	Choose Yes to view expenditure items that have ever appeared on an invoice, regardless of invoice status. When you choose this option, Oracle Projects retrieves expenditure items on a project invoices that have a status of Unapproved, Approved, Released, and Accepted.

CIP Status: You can choose from the following status types:

Capitalizable	Choose Yes to view only capitalizable expenditure items.
Grouped	Choose Yes to view expenditure items that have been grouped into asset lines.

Processing Status: You can choose from the following status types:

Costed	Choose Yes to view only costed expenditure items.
Revenue Distributed	Choose Yes to view only revenue distributed expenditure items, or choose Partial to view expenditure items that have partially distributed revenue due to a hard limit on the agreement.

Expenditure Batch: Choose an expenditure batch name if you want to find expenditure items grouped and entered by batch.

Transaction Source: The source of the imported expenditure items you want to find. Examples of transaction sources include faxed timecards and PBX. You can choose from a valid list of values.

Exclude Net Zero Items: Choose this check box if you want to exclude net zero expenditure items from the items you query. Net zero items consist of an original item and a reversing item for the entire amount of the original item. Together, these two items net to zero.

Expenditure Items window

The Expenditure Items window displays detailed information about each expenditure item.

Currency Fields

This window is a folder form, which allows you to set up a folder that contains the fields you need to view. For example, some of the currency fields are not visible in the default folder. The currency fields are listed in Table 4 – 13.

Currency Field	Description
Bill Amount	The bill amount in the project currency
Accrued Revenue	The accrued revenue in the project currency
Project Burdened Cost	The burdened cost in the project currency
Transaction Currency	The transaction currency code
Transaction Raw Cost	The raw cost in the transaction currency
Transaction Burdened Cost	The burdened cost in the transaction currency
Functional Currency	The functional currency code
Functional Rate Type	The rate type used to determine the functional currency exchange rate
Functional Exchange Rate	The functional currency exchange rate
Functional Raw Cost	The raw cost in the functional currency
Functional Burdened Cost	The burdened cost in the functional currency
Project Currency	The project currency code
Project Rate Type	The rate type used to determine the project currency exchange rate
Project Rate Date	The date used to determine the project currency exchange rate
Project Exchange Rate	The project currency exchange rate
Project Raw Cost	The raw cost in the project currency
Receipt Currency	The receipt currency code
Receipt Amount	The expenditure amount in the receipt currency
Receipt Exchange Rate	The receipt currency exchange rate

Table 4 – 13 Foreign currency fields in Expenditure Items window (Page 1 of 1)

Adjusting Expenditure Items

Use the Expenditure Items window to adjust project expenditure items.

► **To adjust expenditure items:**

1. Navigate to the Project Expenditure Items or Expenditure Items window.
2. Find the expenditure items you want to adjust.
3. In the Expenditure Items window, choose the item(s) you want to adjust. See: *Selecting Multiple Records (Oracle Applications User's Guide)*. You can also use the Mass Adjust feature to adjust items. See: *Mass Adjustment of Expenditures*: page 4 – 55.
4. Choose an option from the Tools menu or the Reports menu to specify how you want to adjust the expenditure item(s).

The following table shows the two menus and the corresponding adjustment actions.

Menu	Selection
Tools	Billable Billing Hold Capitalizable Change Comment Non-Billable Non-Capitalizable One-Time Hold Recalculate Burden Cost Recalculate Cost / Revenue Recalculate Raw Cost Recalculate Revenue Release Hold Split Transfer
Reports	Change Functional Currency Attributes Change Project Currency Attributes

Table 4 – 14 (Page 1 of 1)

See Also: *Types of Expenditure Item Adjustments*: page 4 – 27.

5. Choose Run Request to select the Project Streamline Request process for the adjustment. See: *Processing Adjustments*: page 4 – 38.

See Also

Types of Expenditure Item Adjustments: page 4 – 27

Marking Items for Adjustment: page 4 – 37

Processing Adjustments: page 4 – 38

Results of Adjustment Processing: page 4 – 39

Mass Adjustment of Expenditures

Use the Find Expenditure Items window to process mass adjustment of expenditures.

You can optionally use the multi-select functionality in the Expenditure Items window to perform adjustments on more than one expenditure. However, the mass adjustment feature provides improved performance when you adjust a large number of expenditures.

► **To perform mass adjustment of expenditures:**

1. Navigate to the Find Expenditure Items window.
2. Enter your search criteria. For example, if you want to make an identical adjustment to all billable expenditures by a specific employee, enter the Employee Name field and select Yes for Billable under the Billing Status fields.
3. Choose **Mass Adjust**.
4. From the Mass Adjust poplist, select the adjustment you want to perform on the selected expenditures. When the adjustment process is complete, view the message indicating the results of the process.

Transferring Expenditure Items

You can transfer an expenditure item from its current project or lowest task assignment to another project or lowest task.

Run the Transfer Activity report to view the activity of expenditure items that you transfer.

► **To transfer expenditure items:**

1. Navigate to the Find Project Expenditure Items or Find Expenditure Items window.
2. Find the expenditure items you want to transfer.
3. In the Expenditure Items window, choose the item(s) you want to transfer. See: *Selecting Multiple Records (Oracle Applications User's Guide)*. You can also use the Mass Adjust feature to adjust items. See: *Mass Adjustment of Expenditures*: page 4 – 55.
4. Choose Transfer from the Tools menu.
5. In the Transfer Items to Project / Task window, enter the Project Number and Task Number to which you want to transfer the expenditure item(s).
6. Choose OK to mark the expenditure item(s) for transfer.
7. Enter Yes if you want to re-query your expenditure items so you can see the new expenditure items created from the transfer. Select the Search Criteria to use to re-query the records.
8. Distribute costs, and generate draft revenue and invoice. See: *Processing Adjustments*: page 4 – 38.

See Also

Marking Items for Adjustment: page 4 – 37

Processing Adjustments: page 4 – 38

Results of Adjustment Processing: page 4 – 39

Splitting Expenditure Items

You can split an expenditure item to change its billing, capitalizable, and hold status for a portion of the original item's quantity.

When you split an expenditure item, you create a reversing entry for the original expenditure item, and create two new expenditure items for that expenditure, totalling the same quantity as the original item.

You cannot split an original expenditure item that has already been split or transferred. You can, however, split or transfer the new expenditure items created from a split or transfer.

► **To split expenditure items:**

1. Navigate to the Find Project Expenditure Items or Find Expenditure Items window.
2. Find the expenditure items you want to split.
3. In the Expenditure Items window, choose the item(s) you want to split.
4. Choose Split from the Tools menu.
5. In the Split Expenditure Item window, enter the Split Quantity / Raw Cost / Burdened Cost that you want to allocate to the first item from the expenditure item you are splitting.

The system prompts you to enter a quantity, raw cost, or burdened cost based on what amounts are assigned to the original expenditure item, as indicated in the following table.

If the quantity is ... and the raw cost is ... then the amount split is ...		
non-zero	non-zero	the quantity
zero	non-zero	the raw cost
zero	zero	the burdened cost

Table 4 – 15 (Page 1 of 1) Table 4 – 16 How Oracle Projects determines which amount to split

- Expenditure items with a zero quantity and a nonzero raw cost include costed transactions imported via Transaction Import.
- Expenditure items with both quantity and raw cost equal to zero include burden transactions imported via Transaction Import.

The system calculates the difference between the quantity or cost of the original expenditure item and the quantity or cost you enter for the first item, and displays the remaining amount as the quantity or cost of the second item.

6. Choose OK to mark the expenditure item to be split.

7. Enter Yes if you want to re-query your expenditure items to see the new expenditure items created from the transfer. Select the Search Criteria to use to re-query the records.
8. Distribute costs, and generate draft revenue and invoice. See: Processing Adjustments: page 4 – 38.

See Also

Marking Items for Adjustment: page 4 – 37

Processing Adjustments: page 4 – 38

Results of Adjustment Processing: page 4 – 39

Converting Foreign Currencies

When you enter transactions that originated in a currency different from the functional currency or project currency, Oracle Projects must convert the transaction amount to the functional and project currencies.

This section describes how Oracle Projects determines the default conversion attributes it displays during expenditure entry.

Currency Conversion Attributes for Entered Transactions

To convert foreign currency transactions to the functional and project currencies, Oracle Projects must first determine the exchange rate type and exchange rate date.

To determine conversion attributes for foreign currency transactions you enter in Oracle Projects, Projects uses the logic shown in Case 1 and Case 2 below.

Each of the attributes is determined separately. That is, if a rate type is found in step one, but no rate date is found at that level, the rate type is used and the logic is followed to the next level to determine the rate date.

Case 1: Functional Currency Equals Project Currency

If the functional currency of the operating unit that incurred the cost (the expenditure operating unit) is equal to the functional currency of the operating unit that owns the project to which the cost is charged (the project operating unit), the following logic is used to determine the currency conversion attributes used in converting the transaction amounts from the transaction currency:

First, the functional currency attributes are determined as follows:

1. If you enter the conversion attribute, that attribute is used for the conversion.
2. By default, the system displays the attribute entered for the task to which the transaction is charged. If you do not enter the attribute, the default attribute is used.
3. If no attribute has been entered for the task to which the transaction is charged, the default attribute displayed by the system is the attribute entered at the project level.

4. If there are no defaults entered at the project or task level, the default attribute is the attribute entered in the implementation options for the expenditure operating unit.

These attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the functional currency. Since the functional currency is equal to the project currency, the project currency amount is equal to the functional currency amount.

This logic is illustrated in Table 4 – 17.

Functional Currency Rate Type and Rate Date	Project Currency Rate Type and Rate Date
The following hierarchy is used: 1. User-entered value 2. Default value from the lowest task 3. Default value from the project 4. Default value from the expenditure operating unit's implementation options	The functional currency attributes are used.

Table 4 – 17 Functional currency equals project currency (Page 1 of 1)

You can override functional currency attributes. You cannot directly override project currency attributes. However, if you change the functional currency attributes, the changes will be copied to the project currency attributes.

Case 2: Functional Currency Does Not Equal Project Currency

If the functional currency for the transaction is not equal to the project currency, the following logic is used to determine the currency conversion attributes:

The functional currency attributes are determined as follows:

1. If you enter the conversion attribute, that attribute is used for the conversion.
2. If you do not enter the attribute, the system uses the default attribute in the implementation options for the expenditure operating unit.

The attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the functional currency.

The project currency attributes are determined as follows:

1. If you enter the conversion attribute, that attribute is used for the conversion.
2. By default, the system displays the attribute entered for the task to which the transaction is charged. If you do not enter the attribute, the default attribute is used.
3. If no attribute has been entered for the task to which the transaction is charged, the default attribute displayed by the system is the attribute entered at the project level.
4. If there are no defaults entered at the project or task level, the default attribute is the attribute entered in the implementation options.
 - The default rate date is the implementation option for the expenditure operating unit.
 - The default rate type is the implementation option for the project operating unit.

The attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the project currency.

This logic is illustrated in Table 4 – 18.

Functional Currency Rate Type and Rate Date	Project Currency Rate Type and Rate Date
The following hierarchy is used: 1. User-entered value 2. Default value from the expenditure operating unit's implementation options	The following hierarchy is used: 1. User-entered value 2. Default value from the lowest task 3. Default value from the project 4. For the rate type, the default value from the project operating unit's implementation options. For the rate date, the default value from the expenditure operating unit's implementation options.

Table 4 – 18 Functional currency does not equal project currency (Page 1 of 1)

You can override both functional and project currency attributes.

For transactions imported using Transaction Import, see: Currency Conversion Attributes for Imported Transactions: page 14 – 21.

Transaction Controls

Oracle Projects provides you with many levels of charge controls:

Project Status	You can use the project status to control whether any charges are allowed for the project.
Task Chargeable Status	You can specify a lowest task as chargeable or non-chargeable, to control whether any charges are allowed for the task.
Start and Completion Dates	You can specify the start and completion dates of a lowest task, to record the date range for which charges are allowed for the task. The start and completion dates of the project also limit when transactions can be charged.
Transaction Controls	You can define transaction controls to specify the types of transactions that are chargeable or non-chargeable for the project and tasks.

Use transaction controls to configure your projects and tasks to allow only charges that you expect or plan. You can also define which items are billable and non-billable on your contract projects. For capital projects, you can define which items are capitalizable and non-capitalizable. This proactive means to control charges to projects enables you to better manage your projects.

You enter transaction controls in the Project Options and Task Options windows. See: [Project and Task Options: page 2 – 40](#).

You can configure transaction controls by the following:

- Expenditure Category
- Expenditure Type
- Employee
- Non-Labor Resource

You can create any combination of transaction controls that you want; for example, you can create a transaction control for an employee and a specific expenditure type, or you can create a combination for an employee, expenditure type, and non-labor resource.

You also specify the date range to which each transaction control applies.

If you do not enter transaction controls, you can charge expenditure items from any employee, expenditure category, expenditure type, and non-labor resource to all lowest tasks on the project.

For More Complex Controls: Transaction Control Extensions

To define more complex rules for implementing company-specific expenditure entry policies, you may need to use transaction control extensions.

See: Transaction Control Extensions: page 19 – 22

See Also

Expenditure Item Validation: page 4 – 3

Project and Task Options: page 2 – 40

Entering Project and Task Options: page 2 – 62

Inclusive and Exclusive Transaction Controls

You specify whether the transaction controls you enter are inclusive or exclusive.

- **Inclusive** transaction controls limit charges to only the transaction controls entered; Oracle Projects then rejects any charges that are not listed as chargeable in the transaction controls.

You make your transaction controls inclusive by checking the Limit to Transaction Controls box on the Transaction Controls window.

- **Exclusive** transaction controls allow all charges except those that are specified as non-chargeable in the transaction controls. Oracle Projects defaults to exclusive transaction controls.

For either method of transaction controls, you need to enter the following information:

- Expenditure category
- Expenditure type
- Non-labor resource
- Employee
- Chargeable

- Billable
- Effective from
- Effective to

You must specify an employee or expenditure category for each record. You can specify a non-labor resource for usage expenditure types.

Employee controls with usage and supplier transactions

Transaction controls that you define by employee do not apply to transactions that are not associated with an employee. This includes purchasing and supplier invoice transactions entered for a supplier not associated with an employee, and usage items incurred by an organization and not an employee.

If you define transaction controls to list employees who can charge to your project, Oracle Projects allows transactions from those employees. It also allows any purchasing transactions, supplier invoice transactions, and usage items incurred by an organization, and any other transactions that do not require an employee number.

Employee controls with expense reports entered in Oracle Payables

If you enter expense reports in Oracle Payables, and use suppliers associated with employees, Oracle Projects validates the transaction using the employee associated with the supplier. For example, if you specify that Donald Gray cannot charge to the project, and you enter an expense report item for the supplier GRAY, DONALD who is associated with the employee Donald Gray, Oracle Projects does not allow you to charge the item to the project, because it validates the transaction controls that you have defined.

Allowable charges for each transaction control

You can further control charges for each transaction control record by specifying whether to allow charges. The default value is to allow charges.

You usually select Chargeable when you are using inclusive transaction controls. For example, if you wanted to allow employees to charge only labor to your project, you would check Limit To Transaction Controls to limit charges to only the transaction controls entered. Then you would define a transaction control with the Labor category, and allow charges to that transaction control.

You usually do not select Chargeable when you are using exclusive transaction controls because exclusive transaction controls list the exceptions to chargeable transactions.

You can also record exceptions by defining some transaction controls to allow charges and others not to allow charges. For example, say you want to define that employees can charge all labor except administrative labor. Select Limit To Transaction Controls to make the transaction control inclusive. You then enter one transaction control record with the Labor category that allows charges, and another transaction control record with the Labor category, Administrative type that does not allow charges.

Specifying billable and capitalizable transactions

You can control what transactions for contract projects are non-billable and what transactions for capital projects are non-capitalizable when you set the *Billable/Capitalizable* field . You can choose between the options of *No* or *Task Level*. You select *No* if you want the charges to be non-billable or non-capitalizable; you select *Task Level* if you want the billable or capitalizable status to default from the task to which the item is charged.

You define the billable or capitalizable status for a task in the Task Details window. This value defaults to all expenditure items charged to the task.

Effective Dates

You can define transactions as chargeable for a given date range by entering an Effective From and Effective To date for each transaction control record. You must specify a start date; Oracle Projects defaults this value to the Effective From date of the project or task. The Effective To date is optional.

See Also

Project and Task Options: page 2 – 40

Entering Project and Task Options: page 2 – 62

Determining if an Item is Chargeable

Oracle Projects checks all levels of chargeability control when you try to charge a transaction to a project. The check is performed when you save the record. Oracle Projects checks the control when you:

- enter an online or pre-approved expenditure item
- copy a pre-approved timecard item
- transfer items to a new project or task
- enter a project-related requisition or purchase order distribution in Oracle Purchasing
- enter a project-related invoice distribution in Oracle Payables

Chargeability controls

The transaction validation checks are performed using the following tests ("chargeability controls"):

- Project status allows new transactions
- Task is chargeable
- Expenditure item date is between the start and end dates for the project and task
- Expenditure item must pass validation based on any applicable project or task transaction controls that exist

If the expenditure item passes the first three chargeability controls, then Oracle Projects checks the transaction controls.

The system first looks for an applicable task level transaction control. If it does not find applicable task level controls, it looks for project level controls. If the item matches an applicable transaction control at the task level, project level controls are not checked. The task level controls override the project level controls.

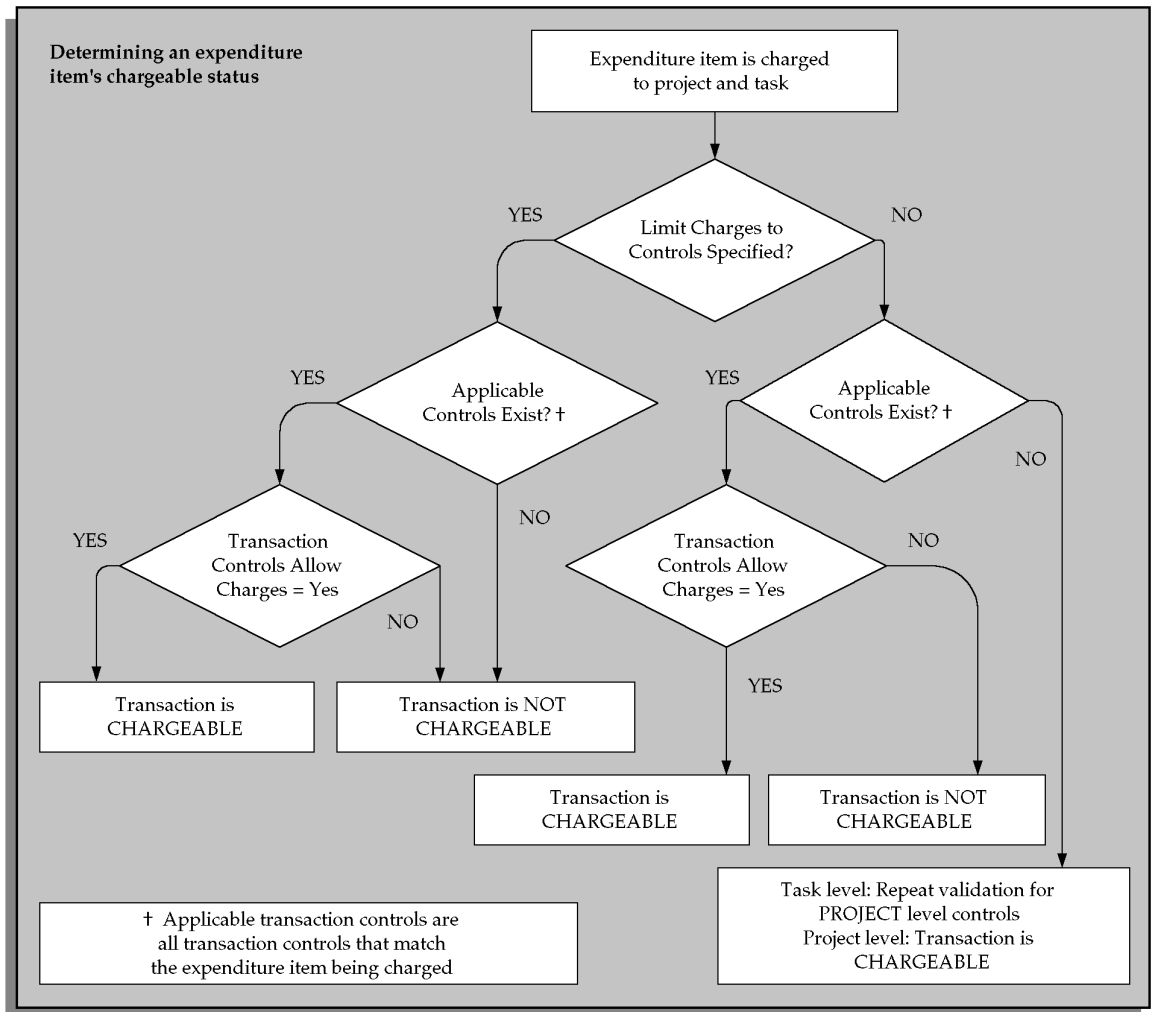
Applicable transaction controls are all of the transaction control records that apply to an expenditure item based on the employee, expenditure category, expenditure type, non-labor resource, and dates.

Oracle Projects follows the steps detailed in Figure 4 – 2 when determining the chargeable status of an expenditure item.

The flow is first followed when checking task level transaction controls and is then repeated for project level transaction controls, if needed.

Figure 4 – 2

Determining an Expenditure Item's Chargeable Status



See Also

Project and Task Options: page 2 – 40

Entering Project and Task Options: page 2 – 62

Determining if an Item is Billable/Capitalizable

You control the capitalizability of transactions for capital projects just as you control the billability of transactions for contract projects.

You specify whether an item is billable for contract projects. Oracle Projects provides you with two levels of billability control.

Task Billable Status	You can specify a lowest level task as billable or non–billable. This billable status defaults to all expenditure items charged to that task.
Transaction Controls	You can define transaction controls to specify what transactions are non–billable.

You can override the billable status of an expenditure item in the Expenditure Items and Invoice Line Details window.

Billability controls

If a transaction is chargeable, Oracle Projects next determines if it is billable using the following transaction validation checks:

A transaction must meet ALL of the following criteria to be billable:

- Transaction is chargeable
- Task is billable
- Billable field must be set to *Task Level* in all applicable rows in Transaction Controls

You can specify what is non–billable using transaction controls.

For an item to be billable, the task must be billable. You can make an item non–billable by setting the Billable field to No for a transaction control record. You cannot mark a task as non–billable, and then mark expenditure items as billable through transaction controls.

See Also

Project and Task Options: page 2 – 40

Entering Project and Task Options: page 2 – 62

Examples of Using Transaction Controls

Following are some examples of what you can do with transaction controls. You can study the example configurations to help you better understand how to use transaction controls in different business scenarios. The examples show you how you can use:

- A combination of employee, expenditure category, expenditure type, and non-labor resource in your transaction controls
- A combination of project and task level transaction controls
- Transaction controls to control both billability and chargeability

You control capitalizability just as you control billability.

CASE 1: Limited employees charge limited expenses

In this example, only two employees can charge a project, and they can charge only labor and expenses, not including entertainment expenses.

Scenario:

Project SF100 begins on September 1, 1999. The only people working on the project are Donald Gray and Amy Marlin; therefore, they are the only employees who can charge to the project. They can charge only labor and in-house recoverables; however, computer expenses are not allowed. All charges are billable and reimbursable by the client.

Setup:

You create Project SF100 and create all tasks as billable. You enter project level transaction controls in the options regions of the Projects, Templates window as follows:

Transaction Controls entered for: Project

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Labor			Marlin	X	Task Level	01-SEP-99	
Labor			Gray	X	Task Level	01-SEP-99	

Table 4 – 19 (Page 1 of 2)

Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
In-House Recoverables			Marlin	X	Task Level	01-SEP-99	
In-House Recoverables			Gray	X	Task Level	01-SEP-99	
In-House Recoverables	Computer Services				Task Level	01-SEP-99	

Table 4 – 19 (Page 2 of 2)

Logic:

When the transaction controls have the Limit to Transaction Controls flag set:

- a transaction only needs to match the listed expenditure combination on a given line OR match the listed employee, AND
- the transaction must not qualify under a Non-Chargeable condition.

Resulting Transactions:

Any expenditure that has Amy Marlin or Donald Gray in the employee field may be charged to the project *except* Computer Services.

Any expenditure with the expenditure category Labor or In-House Recoverables may be charged against the project unless the In-House Recoverable is Computer Service, in which case it is rejected.

All charges are billable as defined by the billable field.

Supplier invoices, expense report charges, and other costs are not allowed.

CASE 2: Different expenditures charged during different phases of a project

In Case 2, different types of expenditures should be charged to the project at different phases in the project.

Scenario:

You have negotiated Project SF200. The project charges will include supplier invoices for material, labor, and employee travel expenses. You know that supplier invoices are charged throughout the life of the

project; you know that supplier invoices will be charged before the work even begins since you have ordered materials that you must have before you can start the project work. The project work is scheduled to last two months; employees submit timecards each week, but are allowed a two week lag to submit their expense reports.

The project is scheduled to begin on September 1, 1995. The project work, which is dependent on receiving materials purchased, is scheduled for October 1 to December 31, 1995. Expense reports can be charged until January 15, 1996, two weeks after the project ends.

Setup:

You create Project SF200 with a duration from 01-SEP-95 to 15-JAN-96. You create the following transaction controls.

Level: Project

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Material				X	Task Level	01-SEP-95	
Labor				X	Task Level	01-OCT-95	31-DEC-95
Labor	Administrative			X	No	01-OCT-95	31-DEC-95
Travel				X	Task Level	01-OCT-95	15-JAN-96

Table 4 – 20 (Page 1 of 1)

Resulting Transactions:

Supplier invoices for materials can be charged to the project from 01-SEP-95 to the end of the project.

Labor can be charged to the project from 01-OCT-95 to 31-DEC-95. Any labor charged outside those dates is not allowed. All labor, except Administrative, is billable based on the billable field; Administrative labor is non-billable based on the transaction control billable field.

Travel expenses can be charged to the project from 01-OCT-95 to 15-JAN-96. Any expenses charged outside those dates are not allowed.

CASE 3: Some tasks, but not all, are only chargeable for labor expenditures

Only labor can be charged to the project. There are exceptions to this rule for specific tasks, which are configured using task transaction controls.

Scenario:

Project SF300 has been negotiated to perform an environmental study for the proposed site of a new housing development. You organize your project so you can easily manage its status and control the charges; the project work breakdown structure is as follows. All the tasks, except task 1, are defined as billable.

Task 1	Administration
Task 2	Purchases
Task 3	Analysis
Task 3.1	Onsite Analysis
Task 3.2	In-house Analysis
Task 4	Writeup

Most of the charges on the project are labor. All labor is billable, except for Administrative labor. Some tasks involve charges other than labor.

- All administration for the project, which includes only labor and computer usage, is charged to task 1. Donald Gray, the project manager, and Sharon Jones, his assistant, are the only people handling the administration of the project.
- You know that you must make a few purchases to perform the analysis for the project; you will monitor the charges for the supplier invoices in task 2.
- You have reserved Field Equipment and a van for the onsite analysis (Task 3.1), but know that your client will not reimburse vehicle charges on this project.
- You have arranged for Susan Marshall from the East Coast office to fly in for a week to help with the in-house analysis since she has done this type of analysis before. She will charge her expenses to the same task, but your client will not be invoiced for those expenses. No other expenses are allowed on that task.

In summary, the controls you want to define for your project are as follows:

Project/Task	Task Name	Transaction Controls
Project		– only labor allowed – Administrative labor is non-billable
Task 1	Administration	– only labor and computer allowed – only Gray and Jones can charge – all charges non-billable
Task 2	Purchases	– only supplier invoices allowed
Task 3	Analysis	
Task 3.1	Onsite Analysis	– labor, equipment, and van charges allowed – van charges are non-billable
Task 3.2	In-house Analysis	– labor allowed – no expenses allowed, except for expenses from Susan Marshall; her expenses are non-billable
Task 4	Writeup	– only labor allowed – Administrative labor is non-billable

Table 4 – 21 (Page 1 of 1)

Setup:

You create Project SF300 with your work breakdown structure. You enter the following transaction controls.

Level: Project

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Labor				X	Task Level	01-SEP-95	
Labor	Administrative			X	No	01-SEP-95	

Table 4 – 22 (Page 1 of 1)

Level: Task 1 Administration (Task is non-billable)

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Labor				X	Task Level	01-SEP-95	
In-House Recoverables	Computer			X	Task Level	01-SEP-95	
			Gray	X	Task Level	01-SEP-95	
			Jones	X	Task Level	01-SEP-95	

Table 4 – 23 (Page 1 of 1)

Resulting Transactions: Task 1

Donald Gray and Sharon Jones can charge to all expenditure categories and types for this task. labor and computer use,

All other employees can only charge to Labor and to In-House Recoverables / Computer for this task.

The project transaction controls are not evaluated for charges to this task, because the Limit to Transaction Controls is selected.

Level: Task 2 Purchases (Task is billable)

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Material				X	Task Level	01-SEP-95	

Table 4 – 24 (Page 1 of 2)

Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Outside Services				X	Task Level	01-SEP-95	
Other Expenses	Other Invoice			X	Task Level	01-SEP-95	

Table 4 – 24 (Page 2 of 2)

Resulting Transactions: Task 2

Only supplier invoice expenditures can be charged to this task. The charges are billable as defined by the billable field.

All other types of charges are not allowed. The project transaction controls are not evaluated for charges to this task, because the Limit to Transaction Controls is selected.

Level: Task 3.1 Onsite Analysis (Task is billable)

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non-Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
In-House Recoverables	Field Equipment			X	Task Level	01-SEP-95	
In-House Recoverables	Vehicle	Van		X	No	01-SEP-95	
Labor				X	Task Level	01-SEP-95	

Table 4 – 25 (Page 1 of 1)

Resulting Transactions: Task 3.1

The only type of in-house recoverable expenditures allowed are Field Equipment and Vehicle. The only type of Vehicle charge allowed is the use of a van. The Van charges are non-billable as defined by the transaction control.

All labor can also be charged to this task. Expense report charges, supplier invoices, in-house recoverables other than Field Equipment and Vehicle usage of a Van, and other costs (such as Miscellaneous Transactions, Inventory, Work in Process, and Burden Transactions)

cannot be charged to this task, as defined by the task transaction controls using Limit to Transaction Controls selected.

Level: Task 3.2 In–House Analysis (Task is billable)

X Limit to Transaction Controls							
Expenditure Category	Expenditure Type	Non–Labor Resource	Employee	Chargeable	Billable	Effective From	Effective To
Travel					Task Level	01–SEP–95	
Travel			Marshall	X	No	01–SEP–95	

Table 4 – 26 (Page 1 of 1)

Resulting Transactions: Task 3.2

Susan Marshall can charge travel expenses, which are non–billable as defined by the task transaction controls. No other employee can charge travel expenses to this task.

All labor can also be charged to this task. Because this task’s Limit to Transaction Controls is set to No and no applicable transaction control was found at the task level for the following types of charges, the charges are evaluated based on the project transaction controls; these type of charges include: labor, supplier invoices, and in–house recoverables. Supplier invoices, in–house recoverables, and other costs are not allowed since they are not listed in the project level transaction controls.

Level: Task 4 (No Transaction Controls)

Resulting Transactions: Task 4

All labor can be charged to this task. All other charges are not allowed based on the project transaction controls.

All charges are evaluated based on the project transaction controls, because no transaction controls are entered for the task.

See Also

Project and Task Options: page 2 – 40

Entering Project and Task Options: page 2 – 62

CHAPTER

5

Costing

This chapter describes everything you need to know about costing in Oracle Projects.

Overview of Costing

Costing is the processing of expenditures to calculate their cost to each project and determine the GL accounts to which the costs will be posted. Costing is performed for the following types of expenditures:

- Pre-approved expenditures. See: Pre-Approved Expenditures: page 4 – 9
 - Labor
 - Expense Reports
 - Usages
 - Miscellaneous Transactions
 - Burden Transactions
- Supplier Invoices from Oracle Payables. See: Integrating with Oracle Purchasing and Oracle Payables: page 13 – 40
- Expenditures submitted from Oracle Self-Service Expenses (see: Integrating Expense Reports with Oracle Payables: page 13 – 21) and Oracle Self-Service Time.
- Imported expenditures. See: Overview of Transaction Import: page 14 – 12
- Adjusted expenditures in Oracle Projects which need re-costing. See: Expenditure Adjustments: page 4 – 26

The Costing process includes the following steps:

1. Calculate raw cost (Quantity × Rate).
2. Calculate burdened cost. See: Burdening: page 5 – 16
3. Call client extensions. See: Client Extensions: page 19 – 2
 - Overtime
 - Labor Costing
 - Create Related Items Procedure
4. Perform accounting:
 - Determine account numbers to post to in Oracle General Ledger
 - Create cost distribution lines

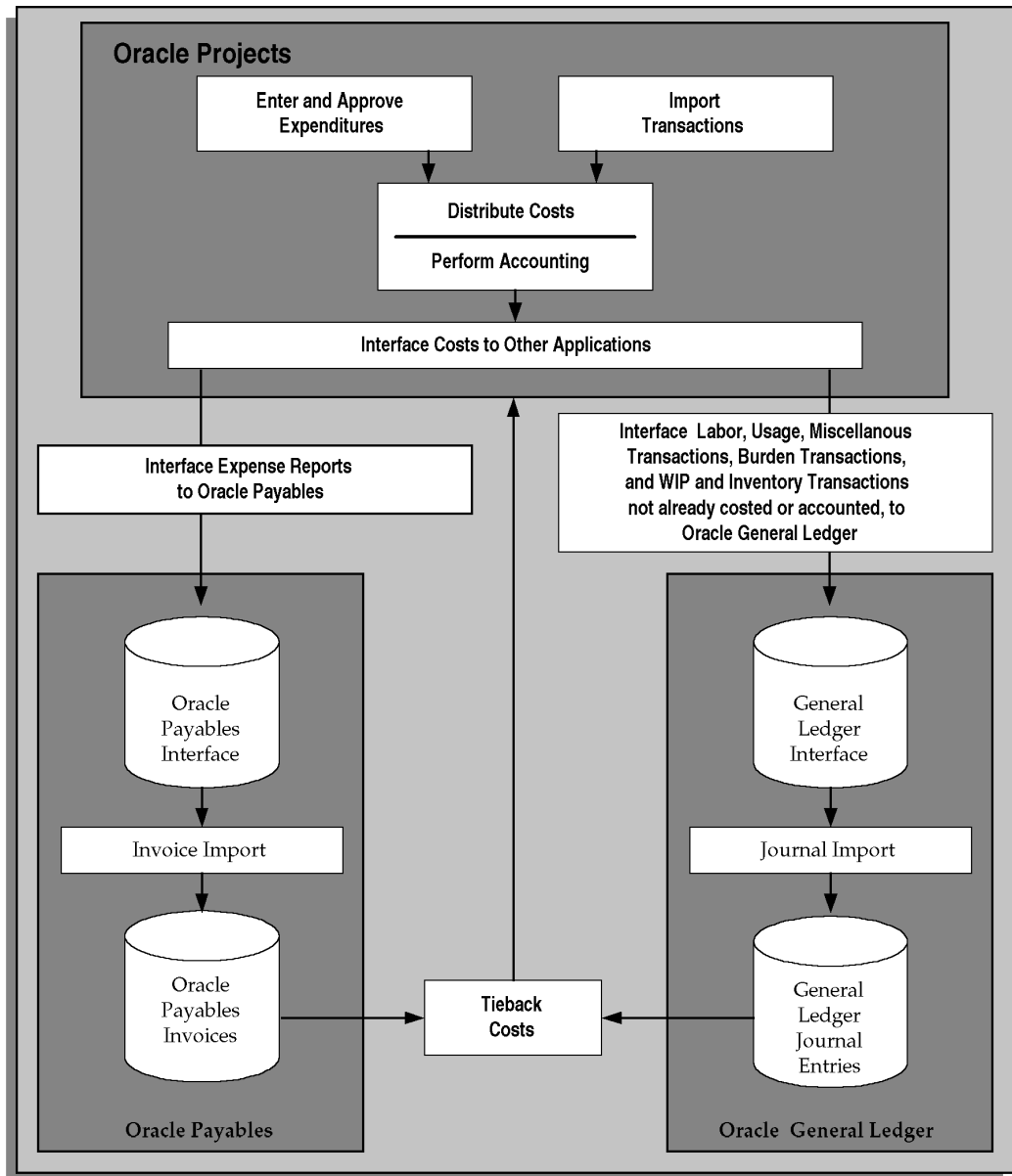
This chapter describes this process in detail using Labor Costing as an example of the costing process. We also describe the use of burden

schedules and overrides, and discuss the entire cost plus processing feature in Oracle Projects.

If your transactions are not costing properly, you can view rejection reasons in the Expenditure Items window. From the Folder menu, choose the Show Field option to display all cost distribution rejections.

Cost Flow Diagram

Figure 5 – 1



Calculating Costs

This section briefly describes how Oracle Projects calculates costs for expenditures. For more detailed information about the costing process, refer to the labor costing example in this chapter. See: Distributing Labor Costs: page 5 – 8.

Each transaction has two cost amounts when processed, raw and burdened. Oracle Projects calculates these amounts for each detail transaction when you distribute costs using any of the following processes:

- Distribute Labor Costs
- Distribute Expense Report Costs
- Distribute Usage and Miscellaneous Costs
- Distribute Supplier Invoice Adjustment Costs

The raw cost is the actual cost of the work performed, and the burden cost is the indirect cost of work performed. The burden costs are created to apply overhead costs to projects to provide an accurate total cost figure. The burdened cost is the total cost of the expenditure, the sum of raw cost and burden cost. Oracle Projects calculates the burden cost using the raw cost and a burden multiplier.

Labor

Oracle Projects calculates the raw cost for labor transactions using quantity and rates as follows:

- **Raw Cost = Hours Worked × Rate**
- **Burden Cost = Raw Cost × Multiplier**
- **Burdened Cost = Raw Cost + Burden Cost**

You can define a unique labor costing algorithm using the Labor Costing Extension. See: Labor Costing Extension: page 19 – 31.

See Also

Distributing Labor Costs: page 5 – 8

Overview of Expenditures: page 4 – 2

Expenditure Adjustments: page 4 – 26

Pre-Approved Expenditures: page 4 – 9

Overview of Transaction Import: page 14 – 12

Burdening: page 5 – 16

Expense Reports, Usages, and Miscellaneous Transactions

Oracle Projects calculates the cost for expense reports, usages, and miscellaneous transactions as follows:

- **Raw Cost = Quantity (if in Currency, for example, currency amount)**
- **Raw Cost = Quantity × Cost Rate (if quantity is not in Currency)**
 - Cost rates by expenditure type, or
 - Cost rates by non-labor resource and owning organization for usages (optional); overrides expenditure type cost rate
- **Burden Cost = Raw Cost × Multiplier**
- **Burdened Cost = Raw Cost + Burden Cost**

See Also

Overview of Expenditures: page 4 – 2

Pre-Approved Expenditures: page 4 – 9

Expenditure Adjustments: page 4 – 26

Burdening: page 5 – 16

Overview of Transaction Import: page 14 – 12

Burden Transactions

Oracle Projects calculates burden cost transactions, which represent only the burden or overhead cost, as follows:

- **Quantity = 0**
- **Raw Cost = 0**
- **Burden Cost = calculated burden cost amount**
- **Burdened Cost = Burden Cost**

See Also

Burdening: page 5 – 16

Supplier Invoices

Oracle Projects calculates the raw cost for supplier invoices using the cost amount entered as the invoice amount for the invoice in Oracle Payables.

- **Raw Cost = Supplier Invoice Amount from Oracle Payables**
- **Burden Cost = Raw Cost × Multiplier**
- **Burdened Cost = Raw Cost + Burden Cost**

Oracle Projects calculates the burdened cost for supplier invoice transactions during the following processes:

- PRC: Interface Supplier Invoices from Payables
- PRC: Distribute Supplier Invoice Adjustment Costs

See Also

Integrating with Oracle Purchasing and Oracle Payables: page 13 – 40

Overview of Transaction Import: page 14 – 12

Burdening: page 5 – 16

Distributing Labor Costs

Oracle Projects allows you to enter detail labor transactions charged to your projects so that you can monitor labor work performed. Oracle Projects costs the items to compute the labor costs for your project, and determines the GL accounts to charge.

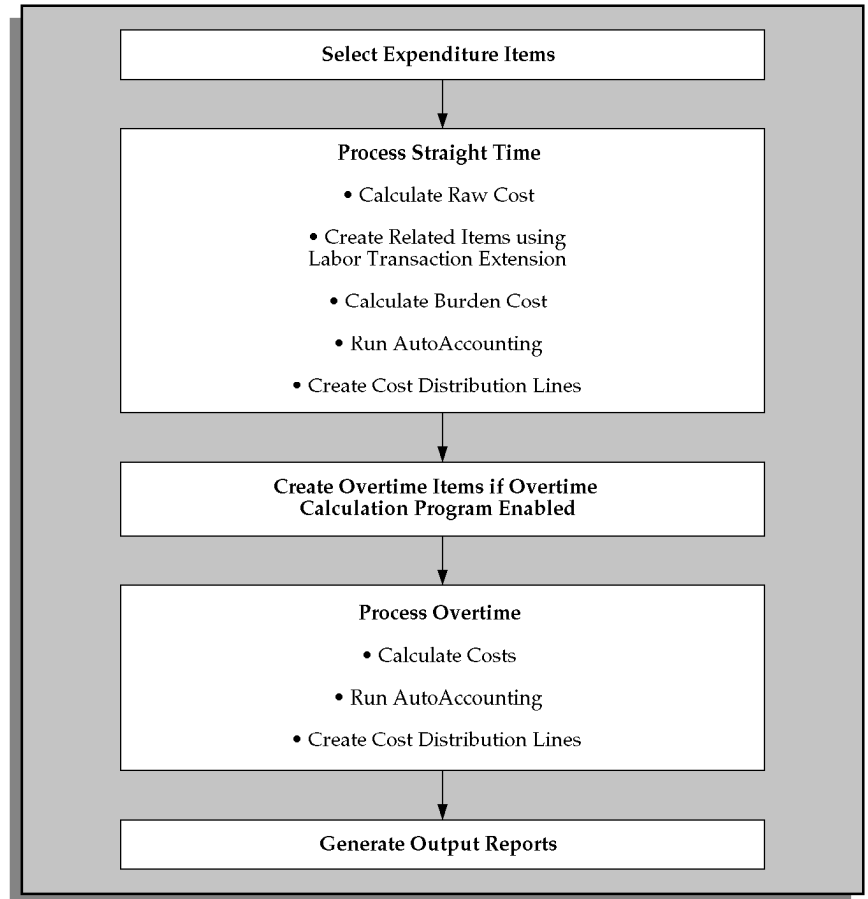
The PRC: Distribute Labor Costs process handles labor items in the following order:

- Selects eligible expenditure items, based on the parameters you entered for project, employee, and week ending date.
- Costs the straight time items.
- Calls the Overtime Calculation program, if it is enabled.
- Costs overtime items, including overtime items created by the Overtime Calculation program.

The diagram below shows the steps in the PRC: Distribute Labor Costs process:

Figure 5 – 2

Steps in the PRC: Distribute Labor Costs Process



Select Expenditure Items

The Distribute Labor Costs program first selects all expenditure items that are eligible for costing. To be eligible for costing, an expenditure item must meet the following criteria:

- Classified with an expenditure type having the Straight Time or Overtime expenditure type class
- Included in the specified project for straight time items (if you specify a project)
- For the specified employee (if you specify an employee)

- In a week ending on or before the end date (if you specify a week ending date)
- In a released pre-approved timecard batch
- Not already cost distributed (new items or items marked for adjustment)

Expenditure items selected are processed in sets according to the Expenditure Item Per Set Profile.

See Also

Profile Options in Oracle Projects: page B – 2

Process Straight Time

Distribute Labor Costs performs three steps to process straight time:

- Calculate costs
- Run AutoAccounting
- Create cost distribution lines

Calculate Straight Time Cost

Oracle Projects calculates straight time cost (raw cost) for expenditure items using the employee's labor cost rate:

Straight Time Cost = (Hours Worked × Employee's Labor Cost Rate)

Distribute Labor Costs uses the labor cost rate that is in effect for an employee as of the week ending date for each selected expenditure item. This amount can be overridden by the Labor Costing Extension to handle unique labor costing rules.

If an employee's labor cost is burdened, Oracle Projects calculates the burdened cost using the following formula:

Burdened Cost = (Straight Time Cost × (1 + Burden Multiplier))

To determine if a labor cost is burdened, Oracle Projects checks the project type of the project to which an expenditure item is charged. The burden multiplier is determined from the burden schedule (or burden schedule override) assigned to the project or task. In addition, Oracle

Projects compares the expenditure item date to the effective dates of the burden schedule to determine the burden multiplier to use.

See Also

Labor Costing Extensions: page 19 – 31

Employee Cost Rates: page 17 – 106

Burdening: page 5 – 16

Run AutoAccounting

After the process calculates cost for each selected expenditure item, it runs AutoAccounting to determine account codings for each cost distribution line that it will create.

If an organization distribution override exists, the destination organization of the override supersedes the actual expenditure organization of affected items.

When you run the cost distribution programs for labor, expense reports, or usages and miscellaneous transactions, Oracle Projects redirects the Expenditure Organization to the "Override To" Organization if you have specified any of the following organization distribution overrides for the organization:

- Incurred by Employee and Expenditure Category
- Incurred by Employee
- Expenditure Organization and Expenditure Category
- Expenditure Category

If you do not specify any of these overrides, Oracle Projects uses the Incurred by Organization or the Expenditure Organization.

Create Cost Distribution Lines

After the Distribute Labor Costs process runs AutoAccounting, it creates cost distribution lines. Each item originally has one distribution line for raw cost. If an item is re-costed and the cost rate or account coding changes, Distribute Labor Costs creates a reversing cost distribution line and a new line for the updated cost or account coding.

See Also

Accounting Transactions for Cost: page 15 – 16

Creating Overtime

Oracle Projects creates overtime when you enter it manually or when the Overtime Calculation program creates it automatically.

If you enter overtime manually, the Distribute Labor Costs program does not create overtime, and instead proceeds directly to calculating overtime cost. See: Tracking Overtime and Premium Labor Costs: page 18 – 2.

If you enabled the Overtime Calculation program for your company, the Distribute Labor Costs process calls the Overtime Calculation program to create overtime automatically. See: Overtime Calculation Extension: page 19 – 50.

Processing Overtime

Distribute Labor Costs performs three steps to process overtime:

- Calculate costs
- Run AutoAccounting
- Create cost distribution lines

Calculate Overtime Cost

Oracle Projects calculates premium overtime cost (raw cost) for overtime items using a labor cost rate that corresponds to the type of overtime worked:

**Premium Overtime Cost =
(Hours Worked × Employee's Cost Rate) × Labor Cost Multiplier**

Overtime may or may not be burdened, depending on your burdening setup.

Run AutoAccounting

After the process calculates cost for each selected expenditure item, it runs AutoAccounting to determine account codings for each cost distribution line that the process creates.

If an organization distribution override exists, then the destination organization of the override supersedes the actual expenditure organization of affected items.

Create Cost Distribution Lines

After the process runs AutoAccounting, it creates cost distribution lines. Each item originally has one distribution line for raw cost. If an item is re-costed and the cost rate or account coding changes, Distribute Labor Cost creates a reversing cost distribution line and a new line for the updated cost or account coding.

Generating Output Reports

Output Reports

The Distribute Labor Costs process generates output reports that list detail items that were processed and exception items.

See Also

Burdening: page 5 – 16

Distribute Labor Costs Process: page 11 – 18

Labor Cost Report (Straight Time): page 11 – 18

Labor Cost Exception Report: page 11 – 18

Overtime Labor Calculations Report: page 11 – 18

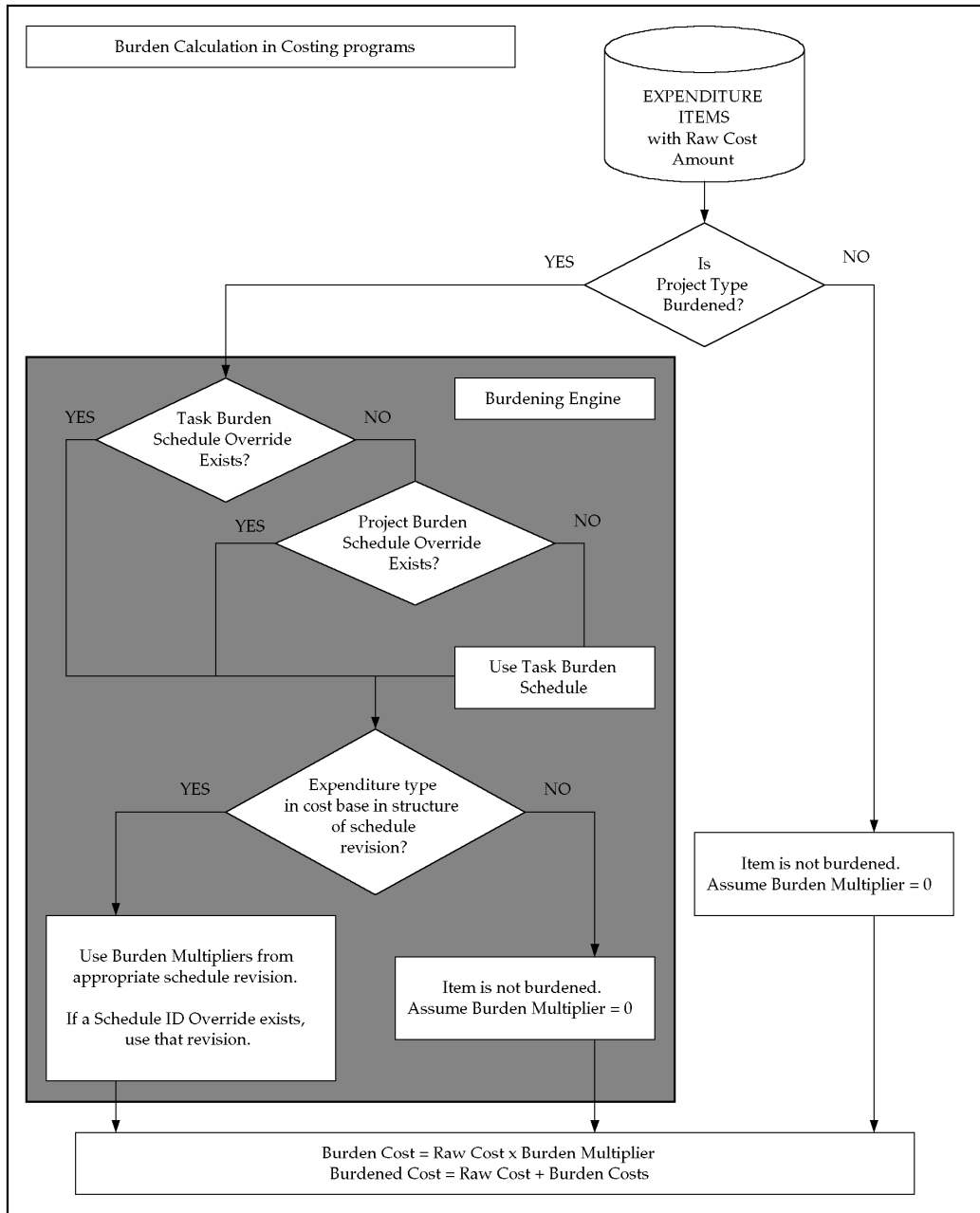
Labor Cost Report (Overtime): page 11 – 18

Labor Cost Exception Report (Overtime): page 11 – 18

Distribute Labor Costs Output Reports: page 11 – 18

Precedence for Calculating Burden Cost

Figure 5 – 3



Burdening (Cost Plus Processing)

Burdening (also known as cost plus processing) is a method of calculating the burden costs by applying one or more burden cost components to the raw cost amount of each individual transaction. You can then review the raw and total burdened (raw cost + burden) cost of each transaction. Oracle Projects displays the raw cost and burdened cost in windows, and shows the cost of each detail transaction in reports. You can choose to account for the individual burden cost components to either track the overhead absorption or to account for the total burdened costs. You can write custom reports using standard views to report all burden cost components for each detail transaction.

Using burdening, you can perform internal costing, revenue accrual, and billing for any type of burdened costs that your company applies to raw costs. Oracle Projects calculates costs using the following formulas. (The formulas for cost also apply to revenue and billing amounts.)

Total Burdened Cost = Raw Cost + Burden Cost

Burden Cost = Raw Cost × Multiplier

You use the multiplier to derive the total amount of the burden cost. For example, you may burden the raw cost of labor using a multiplier of thirty percent to derive the fringe component, and in turn, the total burdened cost of labor is computed as follows:

Labor (raw cost)	1,000
+ Fringe @ 30% (burden cost)	300
Total Burdened Cost	1,300

On a project for which costs are burdened, you can create some transactions that are burdened and others that are not burdened. You define which projects should be burdened by setting the Burden Cost indicator for each project type in the Project Types window. When you specify that a project type is burdened, you must then specify the burden schedule to be used. The burden schedule stores the rates and indicates which transactions are burdened, based on cost bases defined in the burden structure. You specify which expenditure types are included in each cost base.

With burdening, you can use an unlimited number of burden cost codes, easily revise burden schedules, and retroactively adjust multipliers. You can define different multipliers for costing, revenue accrual, and billing.

Building Up Costs

The objective of burdening is to provide you with a buildup of raw and burden costs, so you can accurately represent the total cost of doing business.

You can choose to calculate total burdened costs as a buildup of costs using a precedence of multipliers. Taking the raw cost, Oracle Projects performs a buildup of burden costs on top of raw costs to provide you with a true representation of costs. You provide the multiplier that is used to calculate the cost. The buildup is performed for each detailed transaction. The following example illustrates how Oracle Projects calculates total burdened cost as a buildup of raw and burden costs.

Example of Cost Buildup

Cost Type	Reference	Cost Amount	Formula
Labor	(A)	1,000.00	
Overhead @ 95%	(B)	950.00	.95 × A
Total Labor	(C)	1,950.00	A + B
Materials	(D)	500.00	
Material Handling @ 15%	(E)	75.00	.15 × D
Total Materials	(F)	575.00	D + E
Total of Labor and Materials	(G)	2,525.00	C + F
General & Administrative @ 15%	(H)	378.75	.15 × G
Total Burdened Cost	(I)	2,903.75	G + H

Table 5 – 1 (Page 1 of 1) Example of Cost Buildup

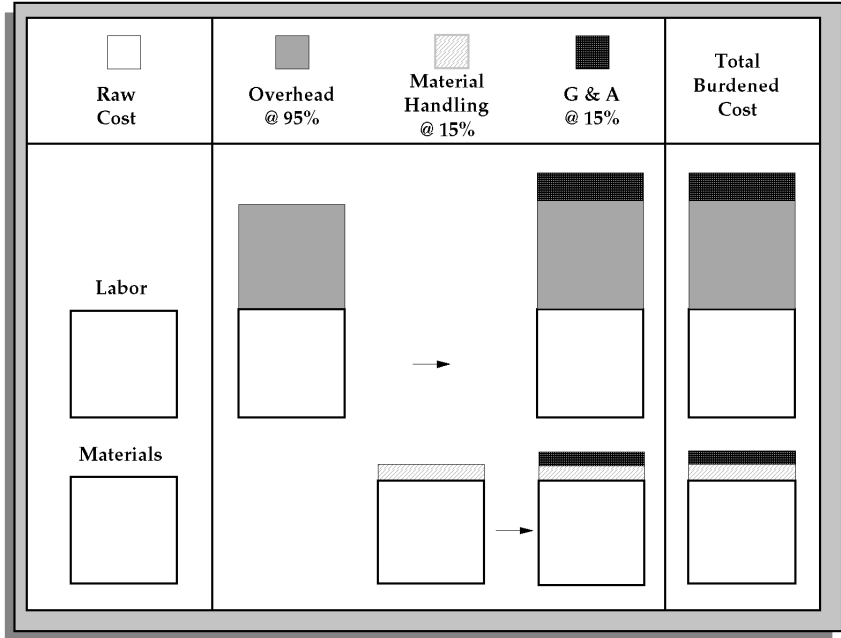
LEGEND	
	Raw Cost
	Burden Cost
	Total Burdened Cost

Example In the example of Cost Buildup and in Figure 5 – 4 below, raw costs are categorized by the cost bases of Labor and Materials. Each raw cost has one or more types of burden cost applied to it to derive the total burdened cost amount. The first-tier multiplier is applied to the raw costs; the second-tier multiplier is applied to the raw costs plus the previous burden cost amount, and so on. In the example above, the multiplier for G&A, which is the second-tier multiplier, is applied to the total raw and burden costs for Labor and Materials.

Examining this example in detail, the raw labor cost of \$1,000 is burdened by Overhead at a multiplier of 95 percent, resulting in a burden cost of \$950 and a Total Labor cost of \$1,950. Next, the raw material cost of \$500 is burdened by Material Handling at a multiplier of 15 percent, resulting in a burden cost of \$75 and a Total Material costs of \$575. Finally, G & A is applied to the total of the buildup of the total burdened costs of Labor and Materials, \$2,525, resulting in a total burdened cost amount of \$2,903.75, which includes raw and burden costs.

Note the flow in the figure below, which demonstrates the order in which multipliers are applied to raw cost. First Overhead is applied to Labor, then Material Handling is applied to Materials, and so on.

Figure 5 – 4



Burden Structures

You define the cost buildup using a burden structure. A burden structure determines how cost bases are grouped and establishes the method of applying burden costs to raw costs. Expenditure types classify raw costs, and burden cost codes classify burden costs. The relationship between expenditure types and burden cost codes within cost bases determines what burden costs are applied to specific raw costs, and the order in which they are applied.

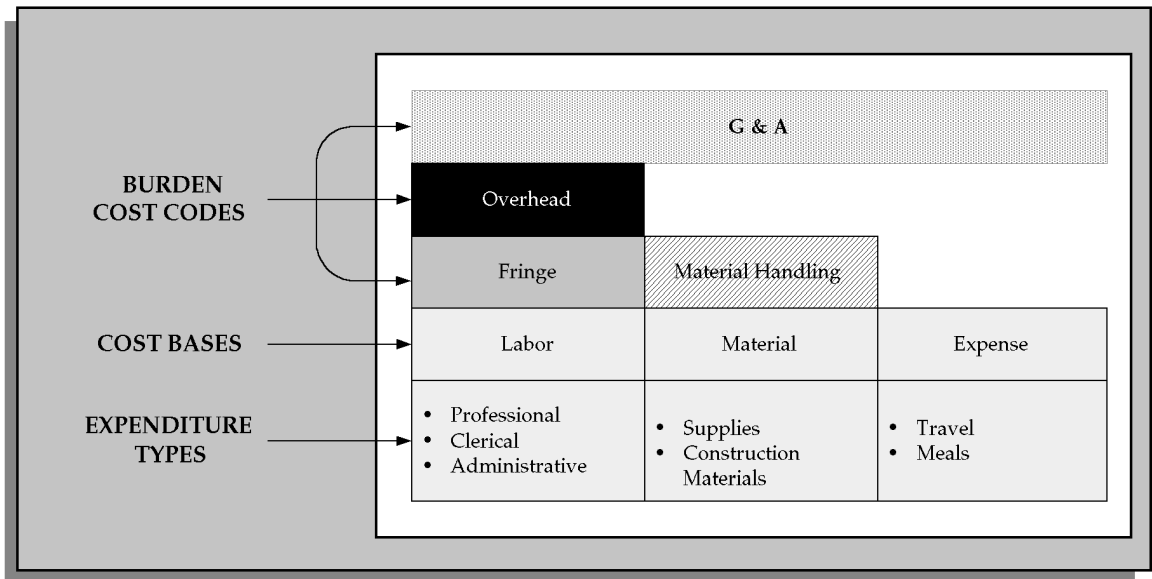
To account for burden cost codes separately, you also define unique expenditure types to link to burden cost codes. See: *Storing and Viewing Burden Costs*: page 5 – 30

Your company may have several different burden structures for unique business requirements. For example, you may use a different structure for internal costing than you use for government billing.

If you change your burden structure and subsequently transfer an expenditure item burdened with the old structure, then the reversed amount and the amount charged to the new task each equals the original burdened amount.

Figure 5 – 5 illustrates the components of a burden structure.

Figure 5 – 5



A **burden cost code** represents the type of burden costs you want to apply to raw costs. For each burden cost code in the burden structure, you specify what cost base it is applied to, the expenditure type or types it is linked to, and the order in which it is applied to raw costs within the cost base.

You burden a type of cost with burden costs to obtain a more accurate representation of your company's operating costs. For example, each hour of employee time costed directly to a project may be supported by burden costs for benefits and office space.

You specify which costs are burdened through the definition of cost bases. A **cost base** is a grouping of raw costs to which you apply burden costs. A cost base assignment consists of expenditure types. You specify the types of transactions that constitute the cost base when you assign expenditure types to the cost base. These expenditure types assignments represent the raw costs to which you apply the burden costs of the cost base. If you exclude an expenditure type from all cost bases in a structure, the expenditure items that use that expenditure type will not be burdened (burden cost = 0, thus burdened cost = raw cost). In Figure 5 – 5, the cost base of Labor is comprised of the following expenditure types: Professional, Clerical, and Administrative.

Cost bases also consist of burden cost codes. While the expenditure types represent the raw costs, the burden cost codes represent the burden costs that support the raw costs. Cost bases may be different within the context of different burden structures. For example, you may use a different definition of a labor cost base in a billing schedule than you would use in an internal costing schedule.

In summary, cost bases are comprised of expenditure types and burden cost codes. Expenditure types represent the raw costs, and burden cost codes represent the burden costs that support the raw costs. Cost bases may be different within the context of different burden structures. For example, you may use a different definition of a labor cost base in a billing schedule than you would use in an internal costing schedule.

An **expenditure type** classifies each detailed transaction according to the type of raw cost incurred.

A burden structure can be additive or precedence based. If you have multiple burden cost codes, an **additive** burden structure applies each burden cost code to the raw costs in the appropriate cost base. A **precedence** burden structure is cumulative and applies each cost code to the running total of the raw costs, burdened with all previous cost codes. The table below illustrates how different burden structures using the same cost codes result in different total burdened costs.

Cost Type	Additive		Precedence	
	Cost Amount	Formula	Cost Amount	Formula
Labor	100.00 (A)		100.00 (A)	
Overhead @95%	95.00 (B)	.95 X A	95.00 (B)	.95 X A
Fringe @25%	25.00 (C)	.25 X A	48.75 (C)	.25 X (A + B)
G&A @15%	15.00 (D)	.15 X A	36.56 (D)	.15 X (A + B + C)
Total Burdened Cost	235.00	A + B + C + D	280.31	A + B + C + D

The order of the burden cost codes has no effect on the total burdened cost with either additive or precedence burden structures.

Using Burden Schedules for Cost Plus

Burden schedules establish the multipliers used to calculate the burdened cost, revenue, or bill amount of each expenditure item charged to a project. You can define different burden schedules for use in internal costing, revenue accrual, and invoicing. When you define burden schedules, you specify the burden structure on which the schedule is based.

You can use both burden schedules and bill rate schedules within a project to accrue revenue and invoice. You can also use a bill rate schedule for non-labor expenditure items, and use a burden schedule for labor expenditure items.

You specify default burden schedules for each project type. You can use different schedules for different types of projects. You can override the default burden schedules for each project by using a schedule of multipliers negotiated for the project or task.

Types of Burden Schedules

There are two types of schedules you can use in Oracle Projects: firm and provisional.

Use **firm** schedules if you do not expect your multipliers to change. Generally, firm schedules are used for internal costing or commercial billing schedules.

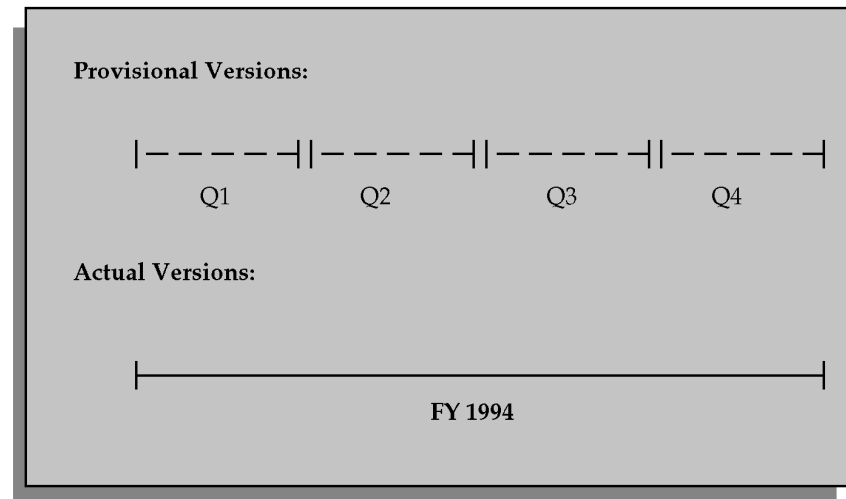
Because burden multipliers may not always be known at the time that you are calculating total burdened costs, you use interim, or **provisional** multipliers. Provisional multipliers are generally estimates based on a company's forecast budget for the year based on the previous year's results. When you determine the **actual** multipliers that apply to costs (after the multipliers are audited), then you replace the provisional multipliers with the actual multipliers. Oracle Projects processes the adjustments from provisional to actual changes for costing, revenue, and billing.

Schedule Versions

You define schedule versions for a burden schedule to record the date range within which multipliers are effective. You can have an unlimited number of versions for each burden schedule, but use one active version at a given point in time. However, after you apply actuals, you can have one active provisional version and one active actual version existing at the same time within a schedule.

In addition, you may have a number of versions for each quarter of the fiscal year in which your company does business, especially for government billing projects. At the end of the year, when the government audits your burden multipliers, you create a new version that reflects the actual billing rates. Figure 5 – 6 illustrates the use of schedule versions.

Figure 5 – 6



In Figure 5 – 6, a company defines provisional burden schedules on a quarterly basis, based on a forecast of budgeted costs. Each quarter, the company creates a new version of the burden schedule to reflect updates in the budget. At the end of the fiscal year, when the company is audited, actual multipliers are applied which reflect the true burdened cost of affected items.

See Also

Applying Actuals: page 17 – 123

Burden Multipliers

When you create burden schedules, you assign a **multiplier** to an organization and burden cost code. The multiplier specifies the amount by which to multiply the raw cost to obtain the burden cost amount.

Table 5 – 2 depicts the multiplier that a company uses to determine the burden cost amounts for labor during cost calculation. In earlier pages of this essay, we described the burden cost calculations for cost details, but did not include the organization in the example.

Organization	Burden Cost Code	Multiplier
Headquarters	Fringe	.35
	Overhead	.95
	G & A	.15
LA	G & A	.20

Table 5 – 2 (Page 1 of 1)

Suggestion for Organizations that Have No Burden

You may need to set up special procedures for organizations that have no burden. For example, your company may use contractors that do not have a particular type of burden cost (such as fringe) applied to their raw cost. To implement this scenario, you can first set up a new organization for contractors. Then, create a zero burden cost amount by assigning that organization to the burden schedule and using a multiplier of zero for the burden cost of Fringe. Each time that burden

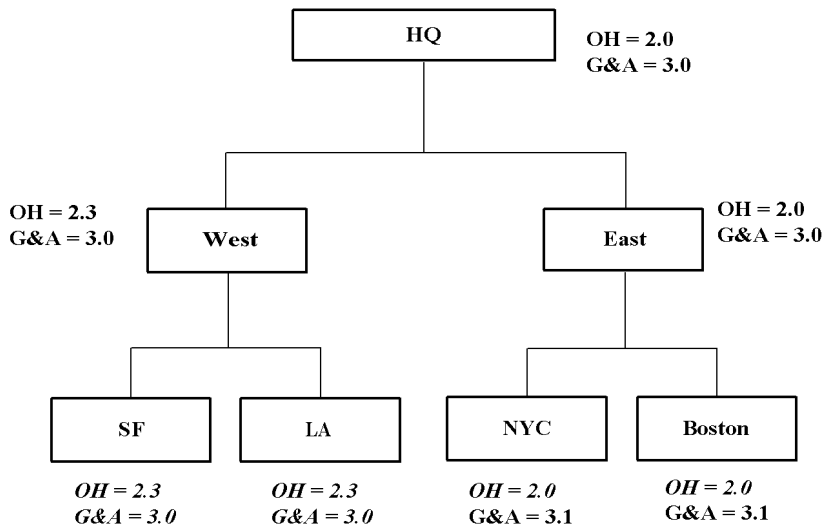
cost for Fringe is calculated for the contractor's organization, Oracle Projects will multiply the contractor's raw cost multiplier by zero, resulting in a burden cost amount of zero, which reflects the true representation of the raw cost and burden multipliers.

Assigning Multipliers to Organizations

Effective multipliers cascade down the Project Burdening Hierarchy, starting with the parent organization. If Oracle Projects finds a level in the hierarchy that does not have a multiplier defined, it uses the multipliers entered for the parent organization. Therefore, an organization multiplier schedule hierarchy is really a hierarchy of exceptions; you define only the multipliers for an organization if they override the multipliers of its parent organization.

In Figure 5 – 7, we depict implementation-defined multipliers in bold, and inheriting multipliers in italics. The parent organization, HQ, has two multipliers defined: Overhead at a multiplier of 2.0, and G & A at a multiplier of 3.0. When Oracle Projects processes transactions for the East organization, no multipliers are found, so the multipliers it uses are from its parent organization, HQ. However, when Oracle Projects looks for the multipliers to use for the Boston and New York organizations, the multiplier of 3.1 for G & A overrides the multiplier from East organization, so the multiplier of 3.1 is used.

Figure 5 – 7



Suggestion for Burdening a Borrowed or Lent Resource

When lending a resource to another organization for a specific project, you may want to burden the resource using the borrowing organization's multipliers.

For example, the Los Angeles organization lends a resource to the New York City organization, and it is agreed that the borrowed resource is to be burdened using the New York City multipliers. For burdening, Oracle Projects uses the destination organization of an organization distribution override, in place of the expenditure organization, if an organization distribution override exists. If you want the project to have the New York City burden multipliers use burdened costs of the borrowed resource from Los Angeles, then enter an organization distribution override with a source organization of Los Angeles and a destination organization of New York City.

See Also

Organization Overrides: page 2 – 47

Assigning Burden Schedules

You can assign burden schedules to project types, projects, and tasks. When you assign schedules to a project type, the schedules default to projects and tasks that use the project type. Assigning burden schedules to project types allows you to implement company policies; for example, you can implement a policy that requires all projects of a particular project type to maintain the same multipliers for internal costing purposes.

You can change the default schedule for a project or task. You can also override default schedules at the project and task level by using burden schedule overrides. Burden schedule overrides generally reflect multipliers that have been negotiated specifically for a particular project or task.

Defining Project Types

You define default standard schedules for each project type. These schedules default to each project defined with that project type. You

can override the default schedules at the project and task level. See: Project Types: page 17 – 196.

Assigning Schedules at Project/Task Level

When you assign a project type to a new project, Oracle Projects automatically provides default burden schedules from the project type. These schedules are also the default schedules for each top task added to the project, and schedules for a top task are the default schedules for lower level tasks.

The schedules used for burdening and billing are those assigned to the lowest task.

When you change the burden schedule assignment for a project that already has tasks set up, the schedules assigned to tasks that already exist do not automatically change. You may need to review schedules for the existing WBS to make sure they are correct.

Scheduling Fixed Dates

You can assign schedule fixed dates for each of your burden schedules, just as you can for bill rate schedules. You can assign fixed dates only to firm schedules. You cannot use fixed dates with provisional schedules.

The fixed date specifies the date for determining the schedule revision to use in calculations, regardless of the expenditure item date.

You enter a fixed date for a cost burden schedule only if the project type definition allows you to override the cost burden schedule.

You can enter schedule fixed dates for standard burden schedules only. Schedule fixed dates are *not* used for burden schedule overrides.

Changing Default Burden Schedules

You can change the default burden schedules for a project or task.

If you change the burden schedule for a lowest level task that has items processed, then the items are **not** automatically marked for reprocessing. Only new items charged to the task will use the new burden schedule. You can mark the items for recalculation in the Expenditure Inquiry window. This will cause the items to be reprocessed using the new burden schedule assigned to the task.

Changing Cost Burden Schedule

You can override the cost burden schedule if the project type definition allows you to override the cost burden schedule, and the project is burdened.

Changing Revenue or Invoice Burden Schedule

You can change the revenue or invoice burden schedule within a schedule type at any time.

Changing the Type of Revenue or Invoice Burden Schedule Used

You can change the burden schedule type of any task or project at any time. You may change a task from a burden schedule type of Bill Rate to Burden, even after you have defined bill rate overrides. These bill rate overrides will not be used in processing. You can also define burden schedule overrides and then change your task to use a bill rate schedule. The burden schedule overrides will not be used.

Overriding Burden Schedules

Defining Burden Schedule Overrides

You can define a schedule of **negotiated** burden multipliers for your projects and tasks which overrides the schedule that you assigned to the project and tasks. When you define burden schedule overrides, you cannot override just one multiplier for the standard schedule; you need to define an entire schedule for the project or task that overrides the standard burden schedule.

Defining burden schedule overrides is similar to defining burden schedules. You specify the revisions and the associated multipliers. The revisions are created as firm revisions. You cannot apply actuals to provisional multipliers with burden schedule overrides. You can select only burden structures that are allowed for use in burden schedule overrides.

The burden schedule overrides that you define are created as burden schedules in Oracle Projects. You must compile schedule revisions as you do with standard burden schedules.



Attention: You do not define override multipliers by organization. The multipliers that you define are used for all items, regardless of the organization.

Assigning Burden Schedule Overrides

You can enter override burden schedules for a project or task in the Project, Templates window or the Tasks window.

The burden schedule override option is available only if the project is burdened and the project type allows override of the cost schedule. You can also choose this option if the schedule type for labor or non-labor is Burden, if you want to allow overrides of revenue and invoice schedules.

Adjusting Burden Schedule Overrides

You can correct, adjust, and create new revisions for your burden schedule override as you do for standard burden schedules.

See Also

Billing: page 8 – 2

Burden Schedules: page 17 – 117

Calculating Burden Cost

The costing and revenue programs in Oracle Projects determine the effective burden schedule to use for burden cost calculations in the following order:

- Task-level burden schedule override
- Project-level burden schedule override
- Task standard burden schedule

Oracle Projects uses the first schedule it finds to process all items charged to that task.

See Also

Precedence for Calculating Burden Cost: page 5 – 15

Distribute Costs and Interface Supplier Invoices from Payables

The Distribute Costs programs and the Interface Supplier Invoices from Payables program use the overrides and schedules to burden

transactions charged to projects that are defined to be burdened for internal costing based on the project type definition. These programs calculate the burdened cost for all transactions on these projects.

Storing and Viewing Burden Costs

You can choose how you want to store and view burden costs for individual expenditure items, using either of the following methods:

- burden cost on the same expenditure item
- burden cost as separate, summarized expenditure items

You decide how to store the burden costs based on your requirements for budgeting and reporting burden costs. You specify the method for each burdened project type that you define.

To define a burdened project type, you enable the Burdened check box in the Costing Information region of the Project Types window. Oracle Projects then displays the Burden Cost Display and Accounting region, where you enter all burden cost information. See: Project Types: page 17 – 196.

See Also

Burden Costing Definitions: page 17 – 110

Burden Cost on the Same Expenditure Item

You can choose to store the total burdened cost as a value along with the raw cost on each expenditure item. The total burdened cost equals the raw cost plus the sum of the burden cost components. With this method, you can easily view the total burdened cost and the raw cost of each item. Oracle Projects displays the raw and burdened costs of the expenditure items on windows and reports.

Table 5 – 3 illustrates the total burdened cost method. The raw cost is stored on each expenditure item. The burdened cost is calculated and then also stored on each expenditure item. The burden cost shown in the table is an interim value that is not stored. In this example, Labor is burdened and Computer Rental is not.

Item #	Transaction	Raw Cost	Burden Cost	Burdened Cost
1	Project A, Task 1.1, Labor, Aug 29, Amy Marlin	100.00	200.00	300.00
2	Project A, Task 1.1, Labor, Aug 29, Don Gray	200.00	400.00	600.00
3	Project A, Task 1.1, Computer Rental, Aug 29, Data Systems	500.00	0.00	500.00
		800.00	600.00	1400.00

Table 5 – 3 Burden Cost on the Same Expenditure Item

Table 5 – 4 shows the detail of the burden cost on Item #1 in Table 5 – 3.

Burden Cost Element	Amount
Fringe	40.00
Overhead	100.00
G&A	60.00
Total Burden Cost	200.00

Table 5 – 4 Burden Cost Detail

Oracle Projects calculates the burdened cost of each expenditure item in the Distribute Cost processes. For supplier invoices, the burdened cost of each expenditure item is calculated in the Interface Supplier Invoices from Payables process.

The burden cost of each item may be comprised of a buildup of individual burden cost components, as shown in Table 5 – 4. This is not readily visible by looking at the expenditure item. However, Oracle Projects provides the ability to report this buildup of burden cost for each individual expenditure item. For more information on reporting the individual burden cost components when you use this method of storing burden amounts, see: Reporting Burden Components in Custom Reports: page 5 – 42.

Accounting for Burden Cost Components

You can choose to additionally show the burden cost on separate, summarized expenditures on a separate project. You assign this

separate **Burden Cost Project** in the Project Types window. The Burden Cost Project can be a single, indirect project that collects all burden costs or a project you define for a particular Project Type. These separate expenditures are generated in the same manner as the separate expenditures described in Burden Cost as Separate, Summarized Expenditure Items in the following section. The link to the original expenditure item is maintained but is not readily visible by looking at the summarized expenditures.

Table 5 – 5 illustrates accounting for summarized burden cost expenditures on a separate project.

Item #	Transaction	Raw Cost	Burden Cost	Burdened Cost
1	Project Overhead, Task 1, Fringe, Sept 1, Consulting East	0.00	120.00	120.00
2	Project Overhead, Task 1, Overhead, Sept 1, Consulting East	0.00	300.00	300.00
3	Project Overhead, Task 1, G&A, Sept 1, Consulting East	0.00	180.00	180.00

Table 5 – 5 Accounting for Burden Cost Components on a Separate Project

Accounting for Burden Cost as Separate, Summarized Expenditure Items

You can choose to hold the burden cost components as separate expenditure items. The expenditure items storing the burden cost components are identified with a different expenditure type that is classified by the expenditure type class **Burden Transaction**.

Table 5 – 6 illustrates burden cost as a separate, summarized expenditure item on the same project.

Item #	Transaction	Raw Cost	Burden Cost	Burdened Cost
1	Project A, Task 1.1, Labor, Aug 29, Amy Marlin	100.00	0.00	100.00
2	Project A, Task 1.1, Labor, Aug 29, Don Gray	200.00	0.00	200.00

Table 5 – 6 Accounting for Burden Cost Components on the Same Project

Item #	Transaction	Raw Cost	Burden Cost	Burdened Cost
3	Project A, Task 1.1, Computer Rental, Aug 29, Data Systems	500.00	0.00	500.00
4	Project A, Task 1.1, Fringe, Sept 1, Consulting East	0.00	120.00	120.00
5	Project A, Task 1.1, Overhead, Sept 1, Consulting East	0.00	300.00	300.00
6	Project A, Task 1.1, G&A, Sept 1, Consulting East	0.00	180.00	180.00
		800.00	600.00	1400.00

Table 5 – 6 Accounting for Burden Cost Components on the Same Project

The expenditure items that incur the raw cost have a burdened cost equal to the raw cost, because the burden cost of those transactions are included in the burden transactions. The burden transactions have a raw cost of zero and a summarized burden cost from the incurred raw costs.

Oracle Projects creates the burden transactions by summarizing the burden cost components by project, lowest task, expenditure organization, PA period, and burden cost code.

If you use this method of storing burden costs, you must assign an expenditure type to each burden cost code. You may also want to define an expenditure type for each burden cost code to use for reporting and budgeting purposes. The Create and Distribute Burden Transactions process summarizes the burden costs for all costed, burdened items. If you are processing new items for a task that already has burden transactions, Oracle Projects will create new burden transactions. The existing burden transactions are not updated. Each new transaction will be assigned the system date when the process is run.

Expenditure Item Date of Summary Burden Transactions

The expenditure item date of the new summary burden transactions matches the latest week ending date that precedes the PA period end date of the expenditures being burdened.

Table 5 – 7 shows some examples of expenditure item dates for burden transactions.

PA Period of Burdened Expenditures	Length of PA Period	Expenditure Cycle Start Day	Expenditure Item Date of Burden Transactions
Monday, 10/19 through Sunday, 10/25	1 Week	Monday	Sunday, 10/25
Monday, 10/12 through Sunday, 10/25	2 weeks	Monday	Sunday, 10/25
Thursday, 10/1 through Saturday, 10/31	1 month	Monday	Sunday, 10/25

Table 5 – 7 (Page 1 of 1) Expenditure item date for burden transactions

See also: Create and Distribute Burden Transactions: page 5 – 40.

Choosing Which Method to Use

The key difference between these two methods is how you view the burden costs on your project. You view the burden costs either as another value on the same expenditure item or as another expenditure item.

The way you budget your projects may influence how you choose to store burden cost:

- If you budget burden components as separate elements in your budget, you would typically choose to view the actuals in a similar way (as a separate expenditure item).
- If you budget burdened costs as a calculation of the raw cost for a given resource, you would typically choose to view the actuals in a similar way (with the burdened costs as a value for the individual expenditure items).

To budget by burden cost component, you use the expenditure type assigned to the burden cost code during setup.

Regardless of which method you choose to store the burden cost, the total raw and burdened costs of the project do not change. The key difference is how you view the information. Also, these methods only apply to storing the cost amounts of the transactions. If you are using cost plus processing for revenue accrual and/or invoicing, then the revenue or invoice amounts are held as an amount along with the raw cost on the expenditure item. You cannot store the burden costs applied for revenue accrual and invoicing as separate summarized, burden transactions.

Setting Up The Burden Cost Storage Method

You choose the method by which you want to store burden amounts on each burdened project type.

- ▶ **If you want to store the burdened cost as an amount on the same expenditure item, you perform the following step:**
 - In the Costing Information region of the Project Types window, enable the Burden Cost on Same Expenditure Item check box.

- ▶ **If you want to store burden amounts on each burdened expenditure item and, additionally, store the burden amounts in a separate project, you perform the following steps:**
 1. Define a destination project and task for generated burden transactions.
 2. In the Costing Information region of the Project Types window, enable the Account for Burden Cost Components check box and add the Project and Task name.
 3. In the Expenditure Types window, define an expenditure type with expenditure type class *Burden Transaction*.
 4. In the Burden Cost Codes window, assign the appropriate burden transaction expenditure type to each burden cost code.

- ▶ **If you want to store the burden costs as separate, summarized transactions on the same project, you perform the following steps:**
 1. In the Costing Information region of the Project Types window, enable the Burden Cost as Separate Expenditure Item check box.
 2. In the Expenditure Types window, define an expenditure type with expenditure type class *Burden Transaction*.
 3. In the Burden Cost Codes window, assign the appropriate burden transaction expenditure type to each burden cost code.

See Also

Loading Burden Transactions: page 14 – 19

Accounting for Burden Costs

You determine if you want to account for the burden costs. You can choose one of the following accounting methods:

- Account for burden costs by burden cost component.
- Account for the total burdened costs.
- Perform no accounting — calculate burden costs only for use in management reporting with no accounting impact.

Oracle Projects supports all of these accounting methods for burden costs regardless of the method that you choose to store the burden costs, either as a value on the expenditure item or as separate, summarized expenditure items.

There are cases in which you may choose to use both of the methods of accounting for burdened costs, based on different objectives. The sections below explain the objectives of using each method of accounting.

See Also

Storing and Viewing Burden Costs: page 5 – 30

Example of Accounting for Total Burdened Costs

Table 5 – 8 and Table 5 – 9 show an example of the accounting for the expenditure items used above in Table 5 – 3. The example includes the accounting for both raw cost and total burdened costs.

Transaction	Item #	Accounting Transactions	Debit	Credit
Labor Cost	1	Labor Expense	100	
		Payroll Clearing		100

Transaction	Item #	Accounting Transactions	Debit	Credit
Labor Cost	2	Labor Expense	200	
		Payroll Clearing		200
Expense	3	Computer Rental Expense	500	
		Payables Liability		500

Table 5 – 8 Accounting for Raw Cost (Page 2 of 2)

Transaction	Item #	Accounting Transactions	Debit	Credit
Labor	1	Project Cost Inventory	300	
		Labor Burdened Inventory Transfer		300
Labor	2	Project Cost Inventory	600	
		Labor Burdened Inventory Transfer		600
Expense	3	Project Cost Inventory	500	
		Computer Burdened Inventory Transfer		500

Table 5 – 9 Accounting for Total Burdened Costs (Page 1 of 1)

The Computer Rental expense is included in the total burdened cost accounting, even though it is not burdened. This is done to include the total project cost in the cost WIP accounts.

Setting Up Accounting for Total Burdened Costs

To set up an Account for Total Burdened Costs configuration, you must perform the following step:

- Define AutoAccounting rules for the Total Burdened Costs Debit and Total Burdened Cost Credit AutoAccounting functions. These rules are used to determine the debit and credit GL accounts that will be charged. You must ensure that your AutoAccounting rules handle all transactions charged to burdened projects, not just those transactions that are burdened.

Creating and Interfacing the Accounting for Total Burdened Costs

► **To create and interface the accounting for the total burdened costs, you run the following processes:**

- **PRC: Distribute Total Burdened Costs.** This process creates the total burdened cost distribution lines for all transactions charged to burdened projects, even if the transaction is not burdened, to account for the total project costs in the cost WIP account.
- **PRC: Interface Total Burdened Costs to General Ledger.** This process interfaces total burdened cost distribution lines to Oracle General Ledger.
- **PRC: Tieback Total Burdened Costs from General Ledger.** This process ties back total burdened cost distribution lines from Oracle General Ledger.

You can also use the streamline processes to create distribution lines for burdened costs.

See Also

Implementing AutoAccounting: page 17 – 239

Distribute Total Burdened Costs: page 11 – 22

Interface Total Burdened Costs to General Ledger: page 11 – 57

Tieback Total Burdened Costs from General Ledger: page 11 – 72

Accounting for Burden Costs by Burden Cost Component

You can account for the individual burden cost components when you want to track the burdening in General Ledger.

Table 5 – 10 and Table 5 – 11 show an example of the accounting for the expenditure items shown in Table 5 – 6. The example includes the accounting for both raw cost and burden costs by component.

Transaction	Item #	Accounting Transactions	Debit	Credit
Labor Cost	1	Labor Expense	100	
		Payroll Clearing		100
Labor Cost	2	Labor Expense	200	
		Payroll Clearing		200
Expense	3	Computer Rental Expense	500	
		Payables Liability		500

Table 5 – 10 Accounting for Raw Cost (Page 1 of 1)

Transaction	Item #	Accounting Transactions	Debit	Credit
Fringe	4	Project Fringe Expense	120	
		Fringe Absorption / Recovery		120
Overhead	5	Project Overhead Expense	300	
		Overhead Absorption / Recovery		300
G&A	6	Project G&A Expense	180	
		G&A Absorption / Recovery		180

Table 5 – 11 Accounting for Summarized Burden Cost Components (Page 1 of 1)

Setting Up Accounting for Burden Costs by Burden Cost Component

To set up this configuration, you must perform the following steps:

1. Define AutoAccounting rules for the Burden Transaction Debit (Burden Cost Account) and Burden Transaction Credit (Burden Cost Clearing Account) AutoAccounting functions. These rules are used to determine the debit and credit GL accounts to be charged. You use the expenditure type parameter to distinguish between different types of burden cost components. You also have the AutoAccounting Function Burden Cost Revenue Account to account for revenue.
2. If you have chosen to store burden costs as a summarized value on a separate project and task (as defined by selecting the Burden Cost on the same expenditure item indicator on the project type), you must perform the following additional steps:

- Define a project and appropriate tasks, which will be used as a storing bucket for summarized, burden transactions used for accounting for the individual burden costs. You typically would not do project reporting from these collection projects. However, you may choose to perform some analysis for burden absorption using these projects. After you account for the burden costs to General Ledger, you can perform additional analysis within General Ledger.
- Specify the above project and task on the project type. This project and task are used for collecting the summarized burden transactions that are used only for the burden accounting.

Creating and Interfacing the Accounting for Burden Costs by Burden Cost Component

► **To create and interface the accounting for the burden transactions, you run the following processes:**

- **PRC: Create and Distribute Burden Transactions.** This process summarizes the burden costs, creates the expenditure items for the burden transactions, and runs the distribution process. The burden transactions are created on different projects depending on the method you use to store burden costs. If you store burden costs as separate, summarized burden transactions, the burden transactions are created on the same project that incurred the costs. If you choose to store burden costs as a value along with raw cost on the expenditure item on the project that incurred the transactions, the burden transactions are created on the collection project and task used for collecting burden transactions intended for accounting by burden cost components only.
- **PRC: Interface Usage and Miscellaneous Costs to General Ledger.** This process interfaces the burden transactions to Oracle General Ledger. Based on the expenditure type class you enter as a process parameter, this process will interface only those transactions that match the parameter. If no parameter is entered, then this process picks up all Burden Transactions, Miscellaneous Transactions, Usage Transactions, Inventory Transactions and WIP Transactions for processing.
- **PRC: Tieback Usage and Miscellaneous Costs from General Ledger.** This process ties back all transactions processed in the PRC: Interface Usage and Miscellaneous Costs process.

You can also use the streamline processes to create distribution lines for burdened costs.

Accounting for Total Burdened Costs

You may choose to account for the total burdened costs of the items, without distinguishing the amounts by burden cost components. This is typically done when you track the total burdened costs in a cost asset or **cost WIP** (work in process) account. This method is also sometimes referred to as **project inventory**. You may track cost WIP when you:

- capitalize total burdened costs
- track the total burdened costs as project inventory (also known as cost WIP) on contract projects and later calculate a cost accrual when you generate the revenue.

You must run the appropriate processes to create and interface total burdened costs distribution lines if you are capitalizing burdened costs for capital projects or are using burdened costs for the cost accrual calculation during revenue generation.

See Also

Capital Projects: page 7 – 2

Revenue-Based Cost Accrual: page 8 – 80

Storing Burden Costs with No Accounting Impact

You can choose to calculate the burden costs for project transactions for management reporting without an accounting impact.

If you store burden costs as a value on the expenditure item, you have no extra setup to perform and no accounting processes to run on the burden costs.

If you store the burden costs as separate, summarized expenditure items and perform the accounting in Oracle Projects (rather than importing the accounting), you must set up AutoAccounting for those burden transaction expenditure items to post the debit and the credit to the same GL account. Oracle Projects requires that you interface the cost distribution lines of these expenditure items to Oracle General Ledger.

Reporting Burden Components in Custom Reports

You can report the buildup of costs for each detail transaction, by invoice, in summary for a project, by GL period, by PA period, or in any way that you want to review information. This applies only if you stored the burdened cost as a value on the expenditure item and not if you store it as a summarized burden transaction. You may want to report this information for internal reporting and for customer billing. For example, your company may need to create an invoice backup report that displays the raw cost as well as the related burden cost components on an invoice.

You report the individual burden cost components for costing, revenue, and invoicing using the appropriate view from the following list:

- PA_CDL_BURDEN_DETAILS_V
- PA_CDL_BURDEN_SUMMARY_V
- PA_COST_BURDEN_DETAILS_V
- PA_INV_BURDEN_DETAILS_V
- PA_REV_BURDEN_DETAILS_V

To create error reports, use the following views:

- PA_CDL_BURDEN_SUM_ERROR_V
- PA_BURDEN_EXP_ITEM_CDL_V

To create the reports for burdened commitments, use the following views:

- PA_CMT_BURDEN_DETAIL_V
- PA_CMT_BURDEN_SUMMARY_V
- PA_CMT_BURDEN_SUM_ERROR_V
- PA_CMT_BURDEN_TXN_V

See Also

View Definitions *Oracle Projects Technical Reference Manual*

Burdening: page 5 – 16

Revenue and Billing for Burden Transactions

Including Burden Transactions in Revenue and Invoices

All expenditure types that will be used on a project must be included in the bill rate schedule that will be used by that project. If they are not, you will receive an error message when you generate invoices or revenue.

The expenditure type "Burden Transaction" is a non-labor expenditure type. To include burden transactions in revenue and invoice calculations, you must include Burden Transactions as an expenditure type when you set up the non-labor bill rate schedule.

Markup is based on the raw cost amount, except in the case of burden transactions, where markup is based on burden cost. If you need to distinguish the bill rate or markup for each type of cost base, then you must define burden cost codes and expenditure types for each category.

For example, if all expenditures are burdened with General and Administrative burden, but you want to distinguish the labor value of this burden on an invoice, or mark it up differently, you must create a G&A burden cost code expenditure type for labor. (Burden cost code expenditure types are defined under Entities that Affect Burdening: page 15 – 37.

Revenue and Billing for Burdened Labor

If your employee bill rates are based on quantity and hours, then burden cost does not affect revenue and billing. However, if you bill for labor based on markup, you may need to distinguish labor burden cost by defining burden cost codes and expenditure types for labor.

Revenue Burdening Using Revenue or Invoice Schedules

If you use revenue or invoice schedules and you want the burden transaction to be revenue burdened, then you must include the burden expenditure types in the burden structures that are used for revenue and invoicing.

Showing Non-Labor Burden Transactions on an Invoice

If you show burden transactions for non-labor expenditures on a project invoice, the "quantity" for burden transactions will be displayed as zero.

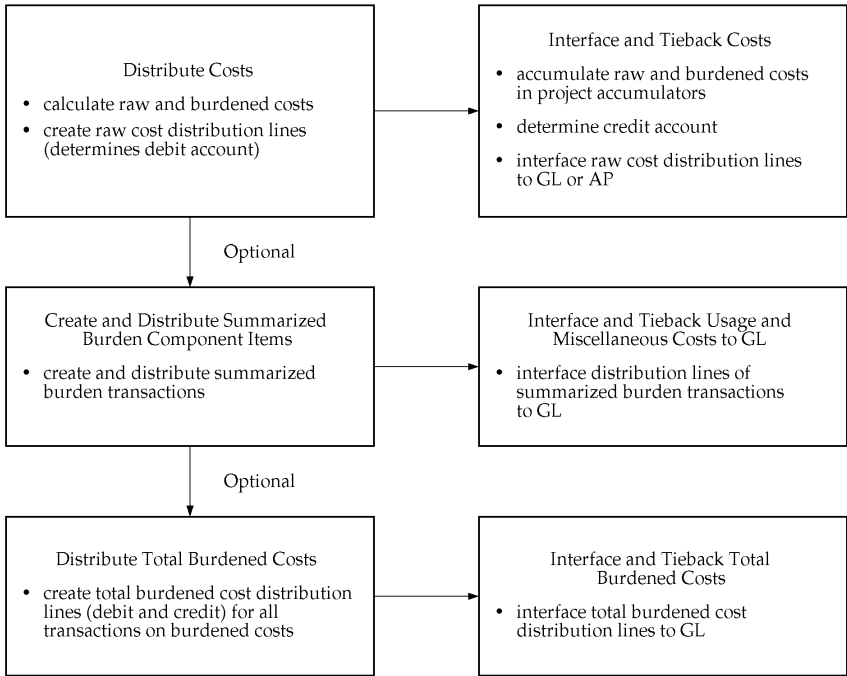
Costing Process Flow Overview

Figure 5 – 8 shows the process flow of the costing processes in Oracle Projects.

If you are not creating burden transactions, you can skip the Create and Distribute Burden Transactions process.

If you are not accounting for total burdened costs, you can skip the processes related to total burdened costs.

Figure 5 – 8



Frequently Asked Questions about Burdening

Use this section to help resolve problems and answer questions you may have concerning your burden setup and cost plus processing. For example, using this section, you can find out why Oracle Projects did not create a burdened cost distribution line for a particular expenditure item. Note that some questions may apply to Project Billing as well as Project Costing.

What characteristics should my Burden Cost Component Destination Project have?

You can set up the destination project with any project type, classifications, and other setup features. We do suggest that you make it an indirect project and use chargeability controls to prevent inadvertent charging to the project.

You can create one project for every project type that burdens costs and tracks burden costs on a separate project or, alternatively, create only one project but set up separate tasks to store costs for each project type. Either solution will work, because in each project type definition you specify a project and task as the destination for generated burden cost transactions .

Should I use unique expenditure types to map to burden cost components or should I add the expenditure type class of Burden Transaction to existing expenditures?

In the Burden Cost Codes setup window, you define each burden cost code to which you will be assigning a burden multiplier in your burden schedule. You also assign an expenditure type to each burden cost code. You may use any expenditure type that has been defined with the *Burden Transaction* expenditure type class or, if you want to account for the burden cost components in the GL or budget by burden cost component, you can define an expenditure type with the same name as the burden cost code. This would also enable you to view your generated burden costs by burden cost component, based on the unique expenditure type.

How can I see my generated burden cost transactions?

When you choose the option to generate separate burden cost transactions on the same project, you will have not only your original raw cost transactions on any particular task, but you will also have the new, generated burden cost transactions. When you view your project transactions in the Expenditure Inquiry window, the generated

transactions will be distinguishable from the original transactions because they will have a raw cost of zero, with the summarized burden cost balance shown as the burdened cost. The burden cost transactions will also have the following characteristics:

- The expenditure item date will be set to the date the creation process was executed.
- The expenditure type will be the unique expenditure type you assigned to the burden cost code. See: Should I use unique expenditure types?: page 5 – 45
- The expenditure type class will be *Burden Transaction*.

What if I have to adjust my original expenditure after I've created these summary burden cost transactions?

While the burden cost transactions are summarized, all links to the original transactions are still maintained. Therefore, if you transfer or adjust the raw cost of the original transaction, the appropriate adjustment is also made to the summarized transactions. Remember, with the exception of billing adjustments, you cannot adjust the summarized transaction directly. See: Adjustments to Burden Transactions: page 4 – 34.

What is Burdening versus Mass Allocations?

Oracle Projects

Burden cost codes in Oracle Projects were designed for applying overhead expenses according to the burden contracting method used by government agencies in the United States. This method reflects a standard costing approach to applying overhead by defining codes and multipliers that will be applied on an ongoing basis as activity occurs. As a result, fully burdened project costs are visible on a timely basis at predictable multipliers which can be budgeted and therefore controlled. These fully burdened costs can then be posted to cost centers as a recovery against their actual costs. Variances to actuals can be monitored and burden multipliers adjusted as required. In addition, the cost center manager responsible for incurring the overhead costs can be held accountable for variances, rather than placing the responsibility on the project manager who does not control these overhead costs. See: MassAllocations *Oracle General Ledger User's Guide*

General Ledger

General Ledger Mass Allocations offers the more traditional full allocation of actual overhead expenses where no ongoing burdening method exists. These allocations are usually performed during the month-end process, resulting in a considerable delay in viewing these costs on projects. In addition, these allocations suffer from the unpredictable nature of overhead expenses which can fluctuate depending on when invoices are received. Consequently, they are very difficult to budget and control. If all of the overhead costs are always transferred to projects, then there is little incentive for the cost center manager to manage those costs.

How can I test my burden structure before processing?

You can use the View Burdened Costs window to test your burden structure before you begin processing costs.

You must have completed the cost plus implementation and assigned burden schedules to projects and tasks to use the View Burdened Costs form. See: View Burden Costs Window: page 17 – 125.

What if I do not include an expenditure type in a burden structure?

If Oracle Projects does not find an expenditure type in a cost base during burden processing, then the expenditure item is not burdened; the burdened cost is equal to the raw cost.

What if I do not include an expenditure type in the definition of my burden cost code?

Without an expenditure type, the Create and Distribute Burden Transactions process will fail, because the expenditure type is a key value in the expenditure item record.

Which burden schedule was used for my project?

Oracle Projects uses the following order of precedence when determining which schedule to use when calculating multipliers:

1. Schedule override assigned to lowest task

If Oracle Projects finds a schedule override at the lowest task, then it uses that schedule to calculate multipliers.

2. Schedule override assigned to project

If a schedule override is not found at the lowest task, then Oracle Projects looks for a schedule override at the project level. If Oracle Projects finds a schedule override at the project level, it uses that schedule to calculate multipliers.

3. Standard schedule assigned to lowest task

If a schedule override is not found at the project level, then Oracle Projects looks for a standard schedule at the lowest task and uses that schedule to calculate multipliers.

Oracle Projects uses this precedence when looking for a burden schedule for the three uses of burden schedules: internal costing, revenue accrual, and invoicing. See: Billing: page 8 – 2



Suggestion: Use the View Burdened Costs window to see which schedules are used for a particular project.

What date was used for a particular burden schedule version?

If the schedule type is firm, Oracle Projects uses the expenditure item date to determine which burden schedule to use for burden cost calculation.

However, if you entered a schedule fixed date for a firm burden schedule, then Oracle Projects uses the schedule fixed date to determine the effective burden schedule version.

If the schedule type is provisional, then Oracle Projects uses the last date of the GL period in which the expenditure item date falls.

What organization was used for calculating burden amounts?

Oracle Projects uses the Expenditure Organization for calculating burden amounts, *unless* organization distribution overrides exist for the organization. If you use organization distribution overrides, then the override to organization is used in place of the expenditure organization.

Where can I view burdened cost distribution lines?

You can use the Expenditure Inquiry window to review burdened cost distribution lines.

Why was a particular expenditure item not burdened?

If Oracle Projects does not properly distribute cost or generate revenue for an expenditure item, you can view revenue rejection reasons from the Expenditure Items window. Use the Folder option Show Field to display either Cost Distr. Rejection or Revenue Distr. Rejection.

To be burdened, an expenditure item must meet the following conditions:

- For internal costing, the item must be charged to a project with a project type set up to burden cost
- For revenue accrual and billing, the item must be charged to a task with a labor schedule type of Burden, if the item is a labor item; or with a non-labor schedule type of Burden, if the item is a non-labor item
- Must be categorized by an expenditure type that belongs in a *cost base*
- Must be included in a compiled schedule
- The *lowest task* that the expenditure item is charged to must have an assigned compiled burden schedule for the appropriate calculation of costing, revenue, or invoicing

What do I need to do if I add a new organization?

See: If You Add a New Organization to the Project Burdening Hierarchy Version: page 17 – 45.

What do I need to do if I add a new expenditure type?

If you want to burden transactions using a new expenditure type, you must add the expenditure type to the appropriate burden structures. You should do this before you enter transactions using this expenditure type. This will ensure that all transactions using this expenditure type are burdened. If you have charged transactions using this expenditure type before you added the expenditure type to the appropriate burden structures, you must mark these transactions to be reprocessed to burden the costs.

If you do not want to burden transactions using this expenditure type, there are no special steps that you must perform.

What happens when I compile multipliers?

When you compile a burden schedule version, Oracle Projects calculates and stores the multipliers for each organization and burden cost code in a schedule version. Additional information stored includes compiled multipliers, which allow Oracle Projects to quickly determine burden cost amounts based on the burden multipliers used for a particular organization as of a particular date.

Instead of performing a buildup of costs each time you calculate burden amounts, Oracle Projects uses the compiled multipliers to multiply the compiled multiplier by the raw cost to determine each burden cost component.

Notice in the following examples that the cost amount is the same for burden costs, regardless of the method used.

Example of cost calculation using compiled multipliers

Cost Base	Burden Cost Code	Compiled Multiplier	Raw Cost	Burden Cost
Labor	Fringe	0.4	800	320.00
	Overhead	1.4	800	1,120.00
	G&A	0.42	800	336.00
Total				1,893.00

Example of cost calculation using cost buildup

Direct Labor	A = 800.00	
Fringe@40%	B = A × 0.40	320.00
Overhead@100%	C = (A + B) × 1.0	1120.00
G&A@15%	F = (A + B + C) × 0.15	336.00
Total		1,893.00

What do I do if I encounter the rejection error "Cannot find compiled multiplier"?

You may find transactions with this rejection error in the output reports of the Distribute Costs programs, the Interface Supplier Invoices from Payables program, and the Generate Draft Revenue program. These programs use compiled multipliers for calculating burden costs.

Oracle Projects expects to find a compiled multiplier for every organization, expenditure type, and burden schedule version

combination that it uses in calculating burden costs. If it cannot find a compiled multiplier, it gives this rejection reason.

You must compile the schedule version that Oracle Projects is trying to use. You can determine the appropriate schedule version that must be compiled by entering the criteria that matches the rejected transaction in the **View Burdened Costs** window. This window displays the burden schedule version that should be used.

You can compile a specific schedule version in the Setup Burden Schedules window for standard burden schedules or in the Burden Schedule Overrides window, which is available from either the **Projects** or **Tasks** windows for burden schedule overrides. You can also submit the PRC: Compile All Burden Schedule Revisions process to recompile all uncompiled schedule versions which are not on hold.

You may also encounter this error if you have added a new organization after setting up your cost plus setup. You must run the PRC: Add New Organization Burden Compiled Multipliers process to create compiled multipliers for the new organization.

Can I apply actual multipliers to closed projects?

Yes, you can apply actual multipliers to transactions on closed projects. However, these transactions will not be processed because Oracle Projects does not process transactions on closed projects. Burden multipliers are applied to any transaction processed in the costing, revenue accrual, and billing programs when a project is set up to burden costs, as long as the project is not closed. However, you can process transactions for a project that is inactive due to having a completion date; you just cannot charge new transactions to projects having a date after the completion date.

Can I apply a multiplier on top of my burden cost buildup?

You can apply a labor multiplier to the burdened costs on projects and tasks for billing purposes. This multiplier is applied for labor items only, and is applied on top of the standard schedule multipliers defined for revenue and invoice purposes. You use the labor multiplier when you need to account for two-tier multiplier billing. In two-tier billing, you define negotiated multipliers to apply on top of the burdened amount calculated based on standard multipliers.

See: Labor Cost Multipliers: page 17 – 107

At what level does Oracle Projects hold burden cost?

Oracle Projects calculates and maintains burdened cost amounts for every expenditure item. The audit information to display the burden cost component breakdown is also recorded at the detail level.

With this detailed information, you can report and summarize the burdened amounts in any way that you need to analyze the information.

CHAPTER

6

Allocations

This chapter describes how you can allocate costs (amounts) to projects and tasks.

Overview of Allocations

Project managers often need to allocate certain costs (amounts) from one project to another. The allocations feature in Oracle Projects can distribute amounts between and within projects and tasks, or to projects in other organizational units. For example, a manager could distribute across several projects (and tasks) amounts such as salaries, administrative overhead, and equipment charges. Your allocations can be as simple or elaborate as you like.

Oracle Projects performs allocations among and within projects and tasks. MassAllocations in Oracle General Ledger performs allocations among GL accounts. You can use AutoAllocations in either General Ledger or Oracle Projects to run MassAllocations.

You identify the *sources*—costs or amounts you want to allocate—and then define *targets*—the projects and tasks to which you want to allocate amounts. If you want, you can offset the allocations with reversing transactions.

The system gathers source amounts into a source pool, and then allocates to the targets at the rate (basis) that you specify.

When you allocate amounts, you create expenditure items whose amounts are derived from one or more of the following:

- Existing summarized expenditure items in Oracle Projects
- A fixed amount
- Amounts in a General Ledger account balance

You can specify exactly how and where you want to allocate selected amounts. For example, you may want to:

- Allocate the actual cost of office supplies equitably among various projects
- Charge certain projects a larger percentage of costs
- Allocate overhead costs, charging them to projects that benefited from the overhead activities

Note about the difference between allocation and burdening

Allocation uses existing project amounts to generate expenditure items, which you can then assign to specified projects.

Burdening estimates overhead by increasing expenditure item amounts by a set percentage.

Allocations and burdening are not mutually exclusive. Whether your company uses allocations, burdening, or both in a particular situation depends on how your company works and how Oracle Projects has been set up.

Overview of Procedures

Creating allocation transactions involves several stages. Each of these stages is described in the pages listed below:

1. Define one or more allocation rules. See: Defining Allocation Rules: page 6 – 5.
2. Create a draft allocation run by selecting a rule and generating allocation transactions. See: Generating Allocation Transactions: page 6 – 19.
3. Use the Review Allocation Runs window to review the results of the draft allocation run. Delete the run if it is unsatisfactory, then correct the rule and rerun the allocation. See: Viewing Allocation Runs: page 6 – 22.
4. Release the draft run. See: Releasing the Allocation Run: page 6 – 21.

You can also reverse runs that have been released. See: Reversing Allocation Runs: page 6 – 24.

About Allocation Rules

Allocation Rule (Vision Services: USD)

Name: **ADMIN INCR**

Description: **Administrative Incremental Allocation**

Created By: **SERVICES**

Creation Date: **13/SEP/2000**

Effective Dates

From: **01/JAN/1999**

To:

Basis Method

☐ Spread Evenly

☐ Prorate

☐ Target % and Spread Evenly

☐ Target % and Prorate

☐ Use Client Extension Basis

Allocation Transaction Attributes

Expnd Org: **Consulting**

Expnd Type Class: **Miscellaneous Transaction**

Expnd Type: **Administrative**

Last Run Details

Period:

Date:

Status:

Allocation Method: **Incremental**

Allocation Period Type: **PA**

Targets Selection: **Operating Unit**

☒ Auto Release

☐ Allow Duplicate Targets

Sources Targets Offset Basis Copy To...

Allocation rules define how allocation transactions are to be generated, including:

- The source of the amounts you are allocating
- The targets—the projects and tasks to which you want to allocate amounts
- How much of the source pool you want to allocate, and if you want to include a fixed amount, GL balance, or client extension (or any combination of these)
- The time period during which the rule is valid

You can create as many rules as you want, and use them in as many allocation runs as you want.

You can leave the original expenditure amounts in the source project, or offset the amounts with reversing transactions. In most cases, the

reversing transactions decrease the project balance by the amount of the allocation.

Allocations and Operating Units (Cross Charging)

Each allocation rule belongs to an operating unit and cannot be shared with other operating units.

Allocation rule source projects must be from the same operating unit. If cross-charging is enabled, you can allocate to target projects that are in different operating units than source projects. Offset projects must always be in the same operating unit as source projects.

Defining Allocation Rules

The procedures for creating allocation rules are presented in several sections:

1. Name the allocation rule. See Naming the Allocation Rule: page 6 – 5
2. Define the sources. See: Defining the Sources: page 6 – 9.
3. Define the targets. See: Defining the Targets: page 6 – 12.
4. *(Optional)* Define the offset: page 6 – 14.
5. If the basis method is Prorate, specify how you want the amounts prorated. See: Defining Prorated Basis Methods: page 6 – 15.
6. Save your work. You can also save periodically as you define an allocation rule.

Naming the Allocation Rule

Each rule consists of attributes that you can define:

- Name of the rule and when it is effective
- Basis and allocation method that specifies how and in what proportion to allocate the source pool to the target projects
- Whether to run the allocation rule based on General Ledger or Oracle Projects periods
- The expenditure organization, expenditure type class, and expenditure type to be used in creating allocation transactions

Selecting a Basis Method

When you define an allocation rule, you select a basis method. The basis method defines how the amounts in the source pool are to be divided among the target lines. You enter the target lines in the Targets window. Each target line identifies projects and tasks.

Each basis method has its own characteristics.

Spread Evenly: This method is the most simple and direct. The rule divides the source pool amount equally among all the chargeable target tasks included in the rule.

Target % and Spread Evenly: This is another simple method. You specify the percentage of the source pool that you want to allocate to each target line. The rule calculates the amount to allocate to the line, and then spreads the results evenly among the tasks.

Prorate and Target % and Prorate: These two proration basis methods provide precise control over how the rule distributes the source pool. The rule uses the attributes set in the Basis window to derive the rate at which the source pool amount is apportioned among the target projects and tasks. For the Prorate basis method, the rule uses the basis attributes to apportion the source amount among all the tasks defined by the rule. For the Target % and Prorate method, the rule first uses the target percentage to calculate the amount to allocate to the line, and then goes on to apportion the results among all the tasks. For more information about the Basis window, see: See Refining Prorated Basis Methods: page 6 – 15.

Use Client Extension Basis: Another way to define percentages and a basis is to use the Allocation Basis extension. If you use this extension, you cannot use the Basis window. For more information, see: Allocation Basis Extension: page 19 – 137.

Example: Comparing Basis Methods

Table 6 – 1 shows how the different basis methods would affect the allocation of a source pool amount of \$1,000 to two target projects, P1 and P2.

P1 has three chargeable tasks (A, B, and C) and P2 has two chargeable tasks (Y and Z).

For the basis methods *Prorate* and *Target % and Prorate*, the proration is based on labor hours. At the time of the allocation, tasks have accrued labor hours as indicated in the Labor Hours column, for a total of 400 hours (300 hours for P1 and 100 hours for P2).

Basis Method	Target Project	Target Tasks	Target Percent	Labor Hours	Allocation of \$1,000
Spread Evenly ¹	P1	A			\$200
		B			\$200
		C			\$200
	P2	Y			\$200
		Z			\$200
Target % and Spread Evenly ²	P1	A	90%		\$300
		B			\$300
		C			\$300
	P2	Y	10%		\$50
		Z			\$50
Prorate ³	P1	A		40	\$100
		B		60	\$150
		C		200	\$500
	P2	Y		80	\$200
		Z		20	\$50

Table 6 – 1 Comparing Basis Methods (Page 1 of 2)

Basis Method	Target Project	Target Tasks	Target Percent	Labor Hours	Allocation of \$1,000
Target % and Prorate ⁴	P1	A	90%	100	\$150
		B		200	\$300
		C		300	\$450
	P2	Y	10%	0	\$0
		Z		50	\$100

¹source pool amount / number of tasks in all target projects

²(source pool amount*target line percentage / number of tasks in all target projects for the target line

³source pool amount*(task labor hours / all target project labor hours)

⁴(source pool amount*target line percentage)*(target task labor hours / all target project labor hours for the target line)

Table 6 – 1 Comparing Basis Methods (Page 2 of 2)

► **To name the allocation rule and define its attributes:**

1. Navigate to the Allocation Rule window.

You may want to use an existing rule as a template when you create a new rule. See: Copying Allocation Rules: page 6 – 17.

2. Enter a unique rule name and optional description, and specify the effective dates.

The allocation rule is effective during the dates you specify. You can use a rule to generate allocation transactions only within its effective date range.

3. Select a basis method. See Selecting a Basis Method: page 6 – 6.
4. For Allocation Method, select Full or Incremental:

If you want to use the rule...	Select
Only once within the same GL or PA run period (as set up in Step 5)	Full
Several times within the same GL or PA run period (as set up in Step 5)	Incremental

The allocation method you select has important implications for your business. See: Full and Incremental Allocations: page 6 – 26.

5. For Allocation Period Type, select GL or PA.

This field specifies if you want to identify amounts based on the Oracle General Ledger (GL) fiscal calendar or the Oracle Projects (PA) calendar.

6. For Target Selection, select Operating Unit, Legal Entity, or Business Group.

This field specifies whether you want to select target projects from the current operating unit only (default), or the current legal entity or the current business group. The last two options require cross-charge set up.

7. Specify the attributes that you want to associate with this rule:

For this field...	Do This
Expnd Org Expnd Type Class Expnd Type	Select from the list of values.
Target Selection	Select an entity from the list of values (Operating Unit, Legal Entity, Business Group). When you select targets on the Targets window, you will be able to select projects owned by the entity. If you select Legal Entity or Business Group, you must set up your system to use cross charge and intercompany billing. See: Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38.
Auto Release	Select if you want to release automatically the transactions generated by the allocation rule. If you deselect this option, you must release the transactions in a separate step. See: Releasing the Allocation Run: page 6 – 21.
Allow Duplicate Targets (Available only if the rule uses the full allocation method.)	Select this option if you want to be able to allocate an amount to a chargeable task two or more times. Note: If you do not allow duplicates, the rule creates one transaction per target project and task, even if an allocation run returns a particular target project and task several times.
[] (Descriptive flexfield)	Enter the information specified by your system administrator. This descriptive flexfield is set up using an extension. See: Allocation Descriptive Flexfields Extension: page 19 – 138.

Table 6 – 2 Allocation Rule window: Allocation Transaction Attributes (Page 1 of 1)

Defining the Sources

You can create the allocation pool from a fixed amount, open projects (including resources within a project), Oracle General Ledger account balances, and projects defined by a client extension.



Warning: Unless you define each source project and task individually, the results may change each time you run the allocation.

The rule accumulates the amounts for the source pool during a specific period of time. The end date of that time period is based on the *amount class*. (The amount class is the period or periods during which the amounts are accumulated and is set in the Sources window.) The start date is determined by both the:

- Allocation period type (either GL or PA, as set in the Allocation Rule window)
- Amount class

You must define at least one source. All source projects and tasks must be open and from the same operating unit. This means that tasks must be the top or lowest level task. The exception report for the allocation run lists any duplicate projects.

► **To define the sources:**

1. In the Allocation Rule window, choose Sources.

The Sources window opens.

2. In the Allocation Pool % field, enter a percentage to specify how much of the source pool to allocate. The default is 100%.

Next, you specify the amounts that you want to include in the source pool.

3. *(Optional)* In the Fixed Source Amount field, enter an amount that you want to include in the source pool.
4. For Amount Class, select from the list of values.

The field name is preceded by GL or PA, depending on the allocation period type you selected in the Allocation Rule window:

Amount Class	Period Type*		Description
	PA	GL	
PTD	X	X	Period-to-Date
QTD		X	Quarter-to-Date
FYTD		X	Year-to-Date
ITD	X		Inception-to-Date

*The items available in the list of values depend on the allocation period type

Table 6 – 3 Allocation Period Types (Sources window)

5. If you want to use projects as sources, go to Step 6. If you want to use only GL accounts as sources, skip to Step 8.

6. (Including project sources in the source pool is optional.) For Amount Type, select from the list of values.
7. Specify the projects whose amounts you want to include in the allocation pool:

To...	Do This
Use projects designated in the Allocation Source client extension	Select Use Client Extension Sources.
Use one or more projects that you designate	For Line Num, enter a number greater than 0. You can enter project information in the following fields: Project Org, Project Type, Class Category, Class Code, Project, Task. To exclude a line, select the Exclude check box on the appropriate line. Notes: If the system does not display a list of values for Project and Task, it is possible that you entered a combination of project organization, project type, class category, class code, or other attributes for which no project (or task) exists. If you do not enter a task, the rule uses the amounts for all the tasks on the source line. You can add columns (Project Name, Service Type, Task Name, and Task Org) to the Sources window. For more information, see: <i>Customizing the Presentation of Data Oracle Applications User's Guide</i>.
(Optional) Limit the resources that are part of the designated projects. (If you do not limit the resources, the rule uses all the resource types in the specified project in the source pool amount.)	Choose Resources. In the Resources window, enter a name for the resource list. In the Resource field, you can enter the resource or resource group and the percent you want to include. The total percentage for included resources must equal 100. To exclude a specific resource, select Exclude on the appropriate line. Notes: If you specify an allocation pool percentage in the Sources window, the rule multiplies the percentage specified in the Allocation Pool % field (Sources window) to the percentage specified in the Resources window. If you include a resource group, you cannot include its members. If you exclude a resource group, you cannot include or exclude its members.

Table 6 – 4 Sources and Resources windows (Page 1 of 1)

8. (Optional) The GL Sources region is available only if you selected the GL allocation period type in the Allocation Rule window. Specify one or more GL accounts whose amounts you want to include in the allocation pool:

- For Line Num, enter an integer greater than 0. Then select from the list of values for Account and Description.

You cannot select or enter GL summary accounts (also known as accounts that contain a parent segment value).

- In the % field, enter the percentage of the account balance that you want to include.
- To subtract the amount in the GL summary account from the source amount, select Subtract.

9. Save your work.

10. Return to the Allocation Rule window.

Defining the Targets

Targets are the projects and tasks to which the allocation distributes amounts. You can define targets by specifying projects and tasks either in the Target window, or by designating projects and tasks in the Allocation Target client extension.

You must define at least one target. All target projects must be open. All target tasks must be open and chargeable. If cross-charging is enabled in Oracle Projects, you can allocate amounts to target projects that are in different operating units than source projects.

How the Target Interacts with the Basis

The rule charges allocation transactions to the target projects and tasks according to the basis method. (You select the basis method in the Allocation Rule window and define prorated methods further in the Basis window.)

The rule first allocates the specified percentage of the source pool to each target line, and then uses the information in the Basis window to prorate the allocated amount across the tasks on each line. For more information, see *Precedence*: page 6 – 19.

Duplicate Target Projects

You can include the same project on multiple lines in the Target window. For example, you could enter Project Y in the Project field on one line, and then specify a project organization that includes Project Y on a different line.

If you include the same project on multiple lines, the Allow Duplicate Targets option in the Allocation Rule window affects the way the rule behaves:

- If you allow duplicate targets, the rule allocates amounts to the project as many times as it appears in the transactions generated by the PRC: Generate Allocations Transactions process.
- If you do not allow duplicate targets, the rule allocates amounts only to the project with the lowest line number.

► **To define the targets:**

1. In the Allocation Rule window, choose Targets.
The Targets window opens. You can designate projects using Step 2, Step 3, or both.
2. To use open projects designated in the Allocation Target client extension, select Use Client Extension Targets. See: Allocation Target Extension: page 19 – 131.
3. Specify one or more open projects to which you want to distribute the amounts in the allocation pool:
 - Enter a number in the Line Num field, and then select from the list of values to enter project information in the Project Org, Project Type, Class Category, Class Code, Project, and Task fields.

Notes:

- If the system does not display a list of values for Project and Task, it is possible that you entered a combination of project organization, project type, class category, class code, or other attributes for which no project (or task) exists.
- If you do not enter a task, the rule distributes the allocation to all the chargeable tasks in the proportion specified by the basis method.
- You can add columns (Billable/Capitalizable, Service Type, Task Name, and Task Org) to the Targets window. For more information, see: Customizing the Presentation of Data *Oracle Applications User's Guide*.
- (Optional) If you selected one of the target percentage basis methods in the Allocation Rule window (*Target % and Spread Evenly* or *Target % and Prorate*), enter a value in the % field. The value is the percentage of the source pool to allocate to the line. The total percentage for included targets must equal 100.

The rule ignores the % field if you use the Allocation Target client extension (that is, if you select Use Client Extension Targets) and the extension returns a target percentage.

- To exclude a project from the target definition, select Exclude on the appropriate line. To exclude a specific task within a project, enter the project on two lines: on one line, leave the Task field blank; on the other line, enter the task that you want to exclude and select Exclude.
4. Save your work.
 5. Return to the Allocation Rule window.

(Optional) Defining the Offset

Offsets are reversing transactions used to balance the allocation transactions with the source or other project. All projects and tasks to which you apply offsets must be open and chargeable.

Do not specify an offset to the source project if you do not want to change the total amount in the source project.

All offset projects and tasks must be open and chargeable, and in the same operating unit as the source projects.

The rule creates the offset transactions for the offset project and task when you run the PRC: Generate Allocations Transactions process.

► To define the offset:

1. In the Allocation Rule window, choose Offset.

The Offset window opens.

2. Select an offset method.

If the source is an Oracle General Ledger account and you want to create offsetting transactions, select the offset method *Use Client Extension for Project and Task* or *Specific Project and Task*. Then you can specify the project and task that you want to receive the offset transactions.

Offset Method	Description
None (Default)	The PRC: Generate Allocations Transactions process will not create any offset transactions.
Source Project and Task	The rule creates reversing transactions for the source projects and tasks.
Source Project, Use Client Extension for Task	The rule creates reversing transactions in specific tasks in the source project. Specify the tasks in the Allocation Offset Tasks client extension.
Use Client Extension for Project and Task	The rule creates reversing transactions in projects and tasks as specified in the Allocation Offset Projects and Tasks client extension.
Specific Project and Task	The rule creates reversing transactions in one project and one of its tasks, as specified in the Project and Task fields.

Table 6 – 5 Offset window (Page 1 of 1)

- For the fields in the Offset Transaction Attributes region, select from the list of values.
- Save your work.
- Return to the Allocation Rule window.

(Optional) Defining Prorated Basis Methods

If you select a proration basis method (Prorate or Target % and Prorate) in the Allocation Rule window, you must define exactly how you want to prorate the source pool amount to the target projects. Proration basis methods derive the proportion of the source amount to be allocated to target projects and tasks. For example, based on the number of labor hours recorded by workers on a project, you can allocate a proportionate amount of the source to that project.

Use the following procedure to define the basis method. (Another way to prorate the source pool is to use an extension. See: Allocation Basis Extension: page 19 – 137.)

How the rule computes a proration basis

Prorate basis method: The rule prorates the amount specified by the source pool to the targets based on the definition in the Basis window.

Target % and Prorate basis method: The rule first computes the percentage of the source pool to be allocated to the target lines. (The

percentage is specified in the Targets window.) The rule prorates the result to the targets based on the definition in the Basis window.

For more information about basis methods, see *Selecting a Basis*: page 6 – 6.

► **To define the basis:**

For more information on basis methods, see: Step 3 page 6 – 8.

1. In the Allocation Rule window, choose Basis.

The Basis button is available only if you selected the basis methods of *Prorate* or *Target % and Prorate*.

2. Enter the following fields:

For this field...	Do This
Basis Category	Select Budget (to use the estimated amounts from the project budget) or Actual (to use the actual amounts in the project).
Amount Type Amount Class (For more information about amount classes, see Defining the Sources: page 6 – 9)	Select from the list of values those items that you want to use to include in the basis computation.
Relative Period	Enter a number to denote the current (0) or earlier (less than 0) period. For example, if you want to use the period preceding the current one, enter –1.
Budget Type (Available only if the basis category is Budget)	Select from the list of budget types. Note: The list of values displays only cost (nonrevenue) budget types. The basis is computed using the latest baselined budget.

Table 6 – 6 Basis window Table 6 – 7 (Page 1 of 1)

3. For Resource List, choose from the list of values those resources that you want to include in the basis computation.
4. In the Resources area, choose resources and resource groups from the list of values. To exclude a specific resource or resource group, select Exclude on the appropriate line.

If you include a resource group, you cannot also include a resource that is a member of that group. However, you can exclude the resource.

Saving Your Work

Save your work when you have completed the definition of the allocation rule. You also can save intermittently as you define an allocation rule.

Copying Allocation Rules

Copy a rule when you want to use an existing rule as a template. You can copy rules only within the same operating unit.

► **To copy an allocation rule:**

1. In the Allocation Rule window, find an existing rule that you want to use as a template. See *Finding and Viewing Allocation Rules*: page 6 – 17.
2. Choose Copy To.
3. Enter a new name and optional description, and then choose OK.
You see the new rule in the Allocation Rule window
4. Change the attributes of the rule as needed. See: *Deleting or Modifying Allocation Rules*: page 6 – 18.
5. Save your work.

Finding and Viewing Allocation Rules

The Last Run Details region in the Allocation Rule window show the period and date of the most recent allocation run (if any) and the status for each rule. For information about the Status field, see: *About the Run Status*: page 6 – 20.

► **To find and view an allocation rule:**

1. Navigate to the Allocation Rule window.
2. Select the Name field, and choose Find from the Query menu.
3. Select the rule you want to find and choose OK.

For more information about finding records (rules, in this case), see: *Using Query Find Oracle Applications User's Guide*.

4. To view other aspects of the rule, choose Sources, Targets, Offset, and Basis.

Deleting or Modifying Allocation Rules

You can modify most aspects of an allocation rule or delete a rule, with certain restrictions:

- If an allocation run exists for a rule, you cannot modify the:
 - allocation method
 - basis method, allocation period type, source amount class, source amount type, or offset method for an incremental rule
- You cannot delete a rule that is used in an existing allocation run.
- You can delete or modify source lines, but this may affect the audit trail of the earlier runs.

Error messages may notify you of other restrictions as you work with an allocation rule.

► **To modify or delete an allocation rule:**

1. Find the rule you want to modify or delete. See: Finding and Viewing Allocation Rules: page 6 – 17.
2. Delete or modify the rule:

To...	Do This
Modify a rule	Navigate to the appropriate window, and then enter the changes.
Delete a rule	Choose Delete Record from the Edit menu

3. Save your changes.

Generating Allocations Transactions

Once you have created a rule for allocating costs, you can use the rule in an allocation run. Processing the rule generates allocation transactions and (if specified) offset transactions in a *draft*, a trial allocation run that you can review and evaluate. If the draft allocation fails or does not produce the results you expect, you can delete the draft, change the rule parameters, and then create another draft. When you are satisfied with the draft run and its status is Draft Success, you can release the allocation run.

Any source projects that you include in an allocation must not be closed. Any target or offset project that you include in an allocation run must have a status that allows the creation of transactions (as defined by your implementation team).

You can create, review, and delete draft runs until you are satisfied with the results. However, you cannot create a draft if another draft exists for the same rule.

Although you can run the Generate Allocations Transactions process at any time, it is a good practice to prepare for the allocation run by distributing costs and running all interfaces and summarization processes. Doing so ensures that the allocation run includes all relevant amounts.



Warning: If you use an allocation rule that is set up for full allocation more than once in a run period, you will generate duplicate transactions in your target projects. If this happens, you can reverse the run. See: Reversing Allocation Runs: page 6 – 24 and see: Full and Incremental Allocations: page 6 – 26.

Reports

The PRC: Generate Allocations Transactions process produces the Allocation Run Report. For a brief description, see: Generate Allocations Transactions: page 11 – 25.

Precedence

Excluded lines take precedence over included lines, and the rule processes lower line numbers first. For more information about precedence, see: How the Target Interacts with the Basis: page 6 – 12.

About the Run Status

The run status shows the progress and state of the allocation run. (For information on the actions you can take for each status, see: Table 6 – 10.)

You may have to wait a short time for the system to change the status.

Status	Description
In Process	The process is not yet complete.
Draft Success	The process has created draft transactions which are ready for release. Note: The system will not create the transactions in the target and (if specified) offset projects and tasks until you release the draft.
Draft Failure	The process encountered problems and could not create draft transactions.
Release Success	The system has written the transactions to the target and (if specified) offset projects and tasks.
Release Failure	The system has not written the transactions, perhaps because projects or tasks included in the draft run were deleted or closed after the process created the draft. Delete the run, fix the problem, and then run the rule again.

Table 6 – 8 Allocation Run Status

Creating Allocation Runs

► To create an allocations run:

1. Navigate to the Submit a New Request window.
2. Submit a request for the PRC: Generate Allocations Transactions process.
3. In the Parameters window:

For this field...	Do This
Rule Name	Enter the name of the allocation rule that you want to use in this allocation run.
Period Name	Select the period from which the process will accumulate the source amount.
Expenditure Item Date	Enter a date for the allocation transactions. The default is the system date.

Table 6 – 9 Parameters for the PRC: Generate Allocations Transactions process

The process is also described with the other Oracle Projects processes. See Generate Allocations Transactions: page 11 – 25.

Releasing Allocation Runs

After you create a successful draft run, the process has created the allocation transactions but not yet allocated each transaction to the targets you specified. To allocate the transactions to the targets, you *release* the run.

You can release a draft run after the effective dates of the rule.

► To release an allocation run:

1. Navigate to the Find Allocations Runs window and enter selection criteria. (To see all existing allocation runs, leave all the fields blank.)

The Review Allocation Runs window opens.

2. Select the allocation run you want to release (the status must be Draft Success), and then choose Release.

After you release the run, the status changes to Release Success or Release Failure. You may have to wait a short while for the status to change. For more information about the status see: About the Run Status: page 6 – 20.

You can also use the Requests window to release the run.

Viewing Allocation Runs

Rule Name	Run Period	Run Status	Allocation Expnd Batch	Current Allocated Amount
AC-ALLOC01.01	DEC-98	Draft Failure		
AC-ALLOC01.01	JAN-00	Release Success	1389PJ3589	161.20
AC-ALLOC01.01	JAN-00	Reversed	1370PJ3569	161.20
AC-ALLOC01.01	JAN-00	Reversed	842PJ1985	161.20
AC-ALLOC01.01	JAN-99	Release Success	813PJ1974	100.00
AC-ALLOC01.01	FEB-98	Release Success	812PJ1973	100.00
AC-ALLOC01.01	JAN-98	Release Success	810PJ1970	100.00

Buttons: Delete..., Exceptions, Reverse..., Release..., Missing Amounts, Basis Details, Source Details, Transactions

You can view various aspects of an allocation run in the Review Allocation Runs window, including the run status.

You can also view allocation transactions by querying by batch name. See: Viewing Allocation Transactions: page 6 – 24.

► To view allocation runs:

1. Navigate to the Find Allocations Runs window and enter selection criteria. (To see all existing allocation runs, leave all the fields blank.)

The Review Allocation Runs window opens.

2. Select the allocation run that you want to view, and then choose a button. (The buttons that you can choose depend on the run status. See: About the Run Status: page 6 – 20.)

To...	Status	Do This
Delete an allocation run	Draft Success Draft Failure Release Failure	Choose Delete, and then confirm the deletion.
View the exceptions for a failed allocation run	Draft Failure	Choose Exceptions. You see information about the draft failure in the Draft Exceptions window. (The Allocation Run Report also includes a list of the exceptions. See: Generate Allocations Transactions: page 11 – 26.)
Reverse an allocation run	Release Success	Choose Reverse. See: Reversing Allocation Runs: page 6 – 24.
Release an allocation run	Draft Success Release Failure	Choose Release, and then confirm the release. See Releasing Allocation Runs: page 6 – 21.
See missing amounts for the second and subsequent runs of an incremental allocation	Draft Success Draft Failure Release Success Release Failure	Choose Missing Amounts*. To limit the display in the Missing Amounts window, specify the type of amount you want to see, and then choose Find. To see the total missing amounts, choose Totals. See: About Previous Amounts and Missing Amounts: page 6 – 26.
See the basis details for an allocation run that used a rule whose basis is prorated	Draft Success Draft Failure Release Success Release Failure	Choose Basis Details*. The Basis Details window displays basis information about the target lines in the allocation run. To see the total basis amounts, choose Totals.
See the source detail lines for an allocation run	Draft Success Draft Failure Release Success Release Failure Reversed	Choose Source Details*. The Source Details window displays information about the sources used in the allocation run. To see total pool amounts, choose Totals.
See the transactions created by an allocation run	Draft Success Draft Failure Release Success Release Failure Reversed	Choose Transactions*. The Transactions window displays information about the transactions associated with the allocation run. To limit the number of transactions displayed, select a check box and then choose Find.

*You can add columns to the window. See Table 6 – 11 Folder Fields: page 6 – 24

Table 6 – 10 Review Allocation Runs (Page 1 of 1)

You can add columns to the windows that are marked with an asterisk (*) in Table 6 – 10:

Window	Fields you can add using the Query > Show Fields command
Review Allocation Runs	Many fields, including Draft Request ID, Pool Amount, Transaction Currency, parameters for various aspects of allocation, basis, missing amounts, offsets, and sources, and others.
Missing Amounts	Project Amounts Release Request ID Task Name
Source Details	Client Extension Project Name Task Name
Transactions	Expnd Type Project Name Target Line Num Task Name

Table 6 – 11 Folder Fields (Page 1 of 1)

For more information about adding folder fields, see: Customizing the Presentation of Data *Oracle Applications User's Guide*.

Viewing Allocation Transactions

You can view individual the individual transaction (expenditure items) created by the PRC: Generate Allocations Transactions process.

► To view individual allocation transactions:

1. Navigate to the Find Project Expenditure Items or Find Expenditure Items window.
2. Enter the Project Number and Transaction Source fields. You can also enter other fields to further limit your search.
3. Choose Find.

► To query by batch name:

1. Navigate to the Find Expenditure Batches window.
2. In the Batch field, enter the name of the batch you want to see and then choose Find.

Reversing Allocation Runs

You can reverse any successful allocation run (that is, the status is Release Success). The reversal creates reversing expenditure items. If

expenditure items have been transferred or split before reversal, then the rule reverses the transferred or split items. The reversal process creates reversal entries in the allocation history, so that the reversed amounts are considered for the next incremental allocation, if any.

Reversing the allocation run reverses all of the transactions. You cannot reverse individual transactions.

► **To reverse an allocation run:**

1. Navigate to the Review Allocation Runs window
2. Select an allocation run that has a status of Release Success, and then choose Reverse.
3. In the Reverse an Allocation Run window, enter the parameters:
 - For Reversed Exp Batch, enter a name for the reversing expenditure batch.
 - For Reversed Offset Exp Group, enter a name for the reversing offset batch, if any. (This field appears only for rules that specify an offset.)
4. Choose OK.

Full and Incremental Allocations

The allocation method is an attribute of every allocation rule and affects how the rule collects and allocates amounts. You choose whether you want a rule to use full or incremental allocation on the Allocation Rule window (see: Naming the Allocation Rule: page 6 – 5 (Step 4)).

Full allocations distribute all the amounts in the specified projects in the specified amount class. The full allocation method is generally suitable if you want to process an allocation rule only once in a run period.



Warning: Plan to run allocation rules that are set up for full allocation only once in a run period. If you generate allocation transactions using a full allocation rule more than once in a run period, you will create duplicate transactions in your target projects. If this happens, you can reverse the duplicates. See: Reversing Allocation Runs: page 6 – 24.

Incremental allocations create expenditure items based on the difference between the transactions processed in the previous and current run. This method is generally suitable if you want to use the allocation rule in allocation runs several times in a given run period.

Incremental allocations may slow system performance because of the need to calculate the amounts allocated in previous runs.

The system keeps track of the results of previous incremental allocation runs. Therefore, you can run an incremental allocation multiple times within the same run period without creating duplicate transactions for target projects. You can review and delete draft runs until you are satisfied with results.

Both full and incremental allocation distribute all the amounts accumulated during the run period.

About "Previous Amounts" and "Missing Amounts"

Previous amounts and missing amounts occur only during incremental allocation runs, and are significant only for the second and subsequent run in the same run period. Full allocation runs do not have or use previous or missing amounts.

Previous amounts are those amounts that have been allocated in a previous run. For the second and subsequent runs for the same time period, the rule allocates only differences from the previous run or additional expenditures.

Missing amounts occur when a source, target or offset project or task has been closed or has become inactive since the previous allocation run. During subsequent runs, the system tracks the "missing" amounts, so that the source, target or offset amounts will be accurate. Source amounts may be missing because:

- The task is closed, perhaps because the task has been completed
- The source line on which a task appears has been excluded (by selecting the Exclude check box for that line on the Sources window)
- An attribute, such as the service type or task organization, has changed

See Also

Case Study: Comparing Full and Incremental Allocations: page 16 – 3

AutoAllocations

To generate allocations more efficiently, you can group allocations rules and then run them in a specified sequence (step-down allocations) or at the same time (parallel allocations).

Terminology and Types of AutoAllocations Sets

AutoAllocations is an Oracle General Ledger and Oracle Projects feature. In General Ledger, the allocation definition is called a *batch*. In Projects, the allocation definition is called a *rule*.

Step-down allocations use the results of each step in subsequent steps of the autoallocation set. Oracle Workflow controls the flow of the autoallocations set.

Parallel allocations carry out the specified rules all at once and do not depend on previous allocation runs.

Depending on the set type, each batch or rule has a different effect when you run the autoallocation set:

Batch/Rule	Set Type	Processes Submitted
Project Allocation	Step Down	Generate Allocations Transactions Release Allocation Transactions Distribute Miscellaneous Costs and Usages Update Project Summary Amounts
	Parallel	Generate Allocations Transactions Release Allocation Transactions*
Mass Allocation Mass Budget Mass Encumbrances Recurring Journal	Step Down	Run MassAllocations Recurring Journal Entry Budget Formulas Posting
	Parallel	Run MassAllocations Recurring Journal Entry Budget Formulas

*The system submits this process only if Auto Release is selected on the Allocation Rule window.

Table 6 – 12 Set Types and Processes

Responsibility at Logon

What you can do with AutoAllocations depends on the responsibility you use when you log on to your database:

- From the Projects responsibility, you can:
 - Create autoallocation sets that contain Projects allocation rules. If Oracle Projects is integrated with General Ledger, you can also include GL allocation batches.
 - View autoallocation sets that were created using the Oracle Projects responsibility
- From the General Ledger responsibility, you can:
 - Create autoallocation sets that contain only General Ledger batches
 - View autoallocation sets that were created using the General Ledger responsibility

For more information about AutoAllocations, especially how it works in Oracle General Ledger, see: AutoAllocations *Oracle General Ledger User's Guide*.

Prerequisites

- ☐ If you want to allocate amounts from Oracle General Ledger, integrate Oracle General Ledger with Oracle Projects. See: Integrating with Oracle General Ledger: page 13 – 10. (You can use AutoAllocations in a standalone installation of Oracle Projects.)
- ☐ (*Step-down allocations only*) AutoAllocations uses Oracle Workflow processes to carry out step-down allocations. Although you can use the workflow without modification, you can customize some processes. See: Setting Up Workflow for AutoAllocations: page 6 – 36.
- ☐ Set the directory for the debug log written by Oracle Workflow. You set the directory in two places, the PA: Debug Log Directory profile option (see: PA: Debug Log Directory: page B – 8) and the `init.ora` file.

Creating AutoAllocation Sets

AutoAllocation Workbench (Vision Services)

Allocation Set: **ADMIN ALLOCATION SET**

Description: **Administrative Costs Allocations**

Default Contact: **AMARLIN** []

Set Type:

- ☐ Step-Down
- ☒ Parallel

Step	Type	Batch/Rule	Contact	Allocation Method
1	Recurring Journals	Admin Recurring Costs	AMARLIN	N/A
2	Project Allocations	ADMIN INCR	AMARLIN	Incremental

Buttons: MassAllocations, Submit, Schedule, View Status

► To specify an allocation set:

1. Using the Projects responsibility, navigate to the AutoAllocation Workbench window.
The AutoAllocation Workbench window opens.
2. For Allocation Set, enter a unique name for the set.
3. *(Optional)* For Description, enter a set description.
4. For Allocation Set Type, select Step-Down or Parallel.



Warning: Once you save the allocation set, you cannot change the allocation set type.

The allocation set type that you select has important implications for your business. See: Terminology and Types of AutoAllocations Sets: page 6 – 28 and see: AutoAllocations *Oracle General Ledger User's Guide*.

If you create a step-down allocation that contains an Oracle Projects allocation rule, you cannot roll back any allocations

transactions that you generate. You can, however, choose View Status to see which steps are complete and which failed.

5. Fill in the rest of the fields:

For this field...	Do This
Default Contact	<i>(Available only for step-down autoallocations)</i> Select or enter the user ID for the person that you want to approve or be notified about the status of the process.
[]	Descriptive flexfield. Enter the information specified by your system administrator.
Step	Enter a step number. Note: The system carries out the steps in numerical order, although you can enter the steps in any order.
Type	Select the type of allocation that you want to include in the set. Note: The button in the lower-left corner of the window changes to reflect the type you select.
Batch/Rule	Select a GL allocation batch (if GL is installed and integrated) or a Projects allocation rule from the list of values. Items available in the list of values depend on the selection in the Type field.
Contact	<i>(Available only for step-down autoallocations)</i> Select or enter the user ID (or accept the default) for the person to be notified about the status of the process for this rule.
Allocation Method	<i>(For GL batches)</i> Select Incremental or Full. For more information, see: Full and Incremental Allocations: page 6 – 26 and see: <i>Oracle General Ledger User's Guide</i> . <i>(Display only for Project Allocations rules)</i> The system displays the allocation method of the selected rule.

Table 6 – 13 AutoAllocation Workbench window

6. You can view information about the set or the steps within the set:

To see...	Do this...
The status of a submitted autoallocation set	Choose View Status. See: Viewing the Status of AutoAllocation Sets: page 6 – 34.
Information about the allocations rule or batch for a step	Select a step, and then choose the button in the lower-left corner of the AutoAllocations Workbench window. The window that you see depends on the type of batch or rule that you select. For example, if you select a Project Allocations rule, you see the Allocations Rules window. See: Defining Allocations Rules: page 6 – 5. If you select a batch, you see the appropriate Oracle General Ledger window. See: AutoAllocations <i>Oracle General Ledger User's Guide</i> .

Table 6 – 14 AutoAllocation Workbench window

7. Save your work.
8. Now you can submit the set, or schedule the submission for another time. See: Submitting an Allocation Set: page 6 – 32.

See Also

AutoAllocations *Oracle General Ledger User's Guide*

Submitting an AutoAllocation Set

The procedure below describes how to submit a request from the AutoAllocation Workbench.

► **To submit the process:**

1. Using the Projects responsibility, navigate to the AutoAllocation Workbench window.
2. In the Allocation Set field, find the set that you want to submit. (You can choose Find, Find All, or one of the Query commands from the View menu.)
3. Choose Submit or Schedule.
The Parameters window opens.
4. Enter information for this autoallocation set. The fields you see vary depending on whether the allocation set contains Projects rules, General Ledger batches, or both:

For sets that contain...	Parameters window displays...	Do This
General Ledger batches	Name	(Display only)
	Period	Select or enter an accounting period for your GL batches.
	(Optional) Budget	Select or enter a budget.
	Journal Effective Date*	Select a date. Note: You can specify any date if the profile option GL: Allow Non-Business Day Transactions is set to Yes. Otherwise, specify a business date.
	Calculation Effective Date*	Select a date in any open, future (that can be entered), closed, or permanently closed period. The default is the closest business day in the chosen period.
	Usage*	Select Standard Balances or Average Balances
Projects rules	GL Period PA Period	Select a period. If the project rules belong only to the GL period type, enter only the GL Period field. Otherwise, enter both fields. If all project rules belong only to the PA period type, enter only the PA Period field.
	Expenditure Item Date	Select or enter the expenditure item date for your allocations transactions.

*You see these fields if Oracle General Ledger uses an average balance set of books

Table 6 – 15 Parameters window (AutoAllocations) (Page 1 of 1)

5. Choose Submit or Schedule. If you are scheduling the process to run at a later time, select a date and time, and then choose Submit.

Viewing the Status of AutoAllocation Sets

View AutoAllocation Statuses (Vision Services)

Request ID: 637165 Allocation Set Type: Step-Down

Allocation Set: ADMIN ALLOCATION SET

Description: Administrative Costs Allocations

Submission Parameters...

Step	Type	Batch	Role	Allocation Method
1	Recurring Journals	Admin Recurring Costs	AMARLIN	N/A
2	Project Allocations	ADMIN INCR	AMARLIN	Incremental

Status: Step Terminated

Allocation Workbench Step Detail Monitor Workflow

► To view the status of an autoallocation set:

1. Using the Projects responsibility, navigate to the View AutoAllocation Statuses window.
2. Select the set you want to view and then choose a Find or Query command from the View menu.

For more information about finding records, see: *Using Query Find Oracle Applications User's Guide*.

3. To see the Allocation Workbench for this set, choose Allocation Workbench. You can see more information about a step by selecting the step, and then selecting an option:

To see more information about...	Choose...
A step	Step Detail
The workflow process for the step	Monitor Workflow

Table 6 – 16 View Allocations Status window

Setting Up Workflow for Step–Down AutoAllocations

The PA Step Down Allocations workflow (item type) automates the execution of step–down autoallocation sets to:

- Create allocation runs
- Generate the allocation transactions
- Release the allocation transactions (if the rule is set up to release automatically) or require approval from a specific person before the process proceeds
- Distribute costs
- Update the project summary amounts

You can customize some aspects of the Workflow processes. See: Customizing the PA Step Down Allocations Workflow: page 6 – 38.

Prerequisites

To work with the PA Step Down Allocations workflow (item type), you need:

- Oracle Workflow Builder 2.5 or newer
- The file Workflow Builder file `paauto.wft`, which is located in the `admin/import` directory on the Oracle Applications CD

You can use AutoAllocations in a standalone installation of Oracle Projects. If you want to include both Oracle Projects rules and Oracle General Ledger batches in the same autoallocation set, Oracle General Ledger must be integrated with Oracle Projects.

Unsupported Processes

The following processes in the PA Step Down Allocations workflow are unsupported in version 11i:

- PA Allocation Rollback Process
- PA Distribute Cost Rollback Process
- PA Update Projects Summary Rollback Process

Interactions with Oracle General Ledger

If your Oracle Projects system is integrated with Oracle General Ledger, you can create autoallocation sets that include General Ledger batches.

See Also

Oracle Workflow Guide

Processes for the PA Step Down Allocation Workflow

This workflow applies only to step-down allocations, not parallel allocations. The PA Step Down Allocation workflow (item type) directs the flow of autoallocations through the system. The filename is `paauto.wft`.

In Oracle Workflow Builder, the processes are listed in alphabetical order. In this section, however, the processes are grouped together by purpose and flow. The main process is PA Auto Allocation Process; subordinate processes are indented:

PA Auto Allocation Process: page 6 – 39

PA Step Down Allocation Process: page 6 – 39

PA Allocation Process: page 6 – 40

PA Allocation Generation Process: page 6 – 41

PA Allocation Release Process: page 6 – 42

PA Customizable Allocation Process: page 6 – 43

PA Cost Process: page 6 – 43

PA Distribute Cost Process: page 6 – 44

PA Customizable Distribute Cost Process: page 6 – 45

PA Summarization Process: page 6 – 46

PA Update Projects Summary Process: page 6 – 47

PA Customizable Summarization Process: page 6 – 48

Required Modifications

None.

(Optional) Customizing the PA Step Down Allocations Workflow

Do not customize any aspect of the workflow other than the ones listed here. Oracle does not support any other customizations.

You can customize the following processes:

- PA Customizable Allocation Process: page 6 – 43
- PA Customizable Distribute Cost Process: page 6 – 45
- PA Customizable Summarization Process: page 6 – 48

Customize the PA_AUTO_ALLOC_WF_PKG (defined in the files PAPAALCB.pls and PAPAALCS.pls). This package contains the PL/SQL template of procedures and functions that you modify to customize the GL AutoAllocation Process.

The customizable processes return the following result types:

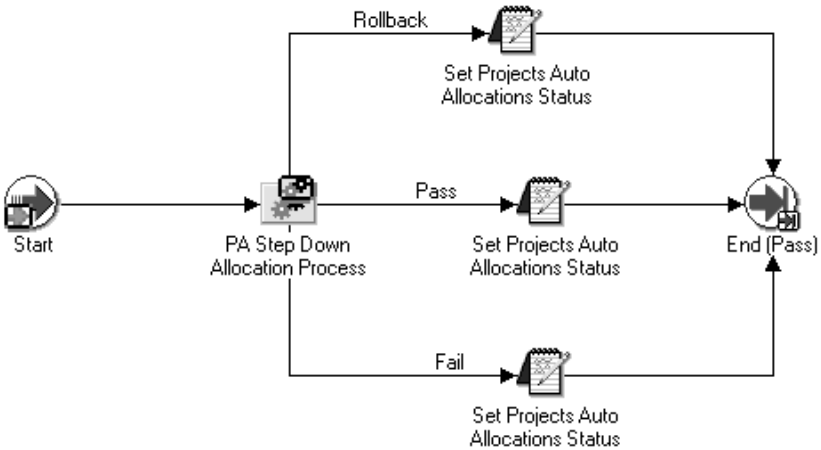
Result Type	Meaning the process...
COMPLETE:PASS	Is complete
COMPLETE:FAIL	Has failed and has been terminated

Table 6 – 17 Allocation Run Status

For information on opening and modifying Oracle Workflow processes, see: *Oracle Workflow Guide*.

PA Auto Allocation Process

Purpose The main process for Projects AutoAllocations. This process calls the process, PA Step Down Allocation Process: page 6 – 39.

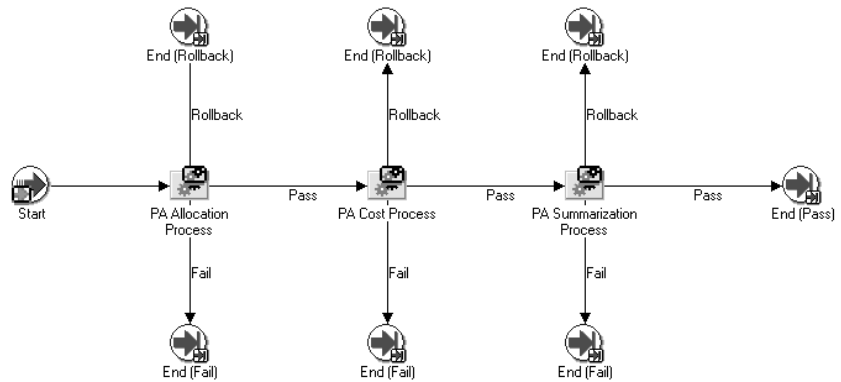


PA Step Down Allocation Process

Purpose: The main process for Projects step–down allocations. This process calls other processes:

- PA Allocation Process: page 6 – 40
- PA Cost Process: page 6 – 43

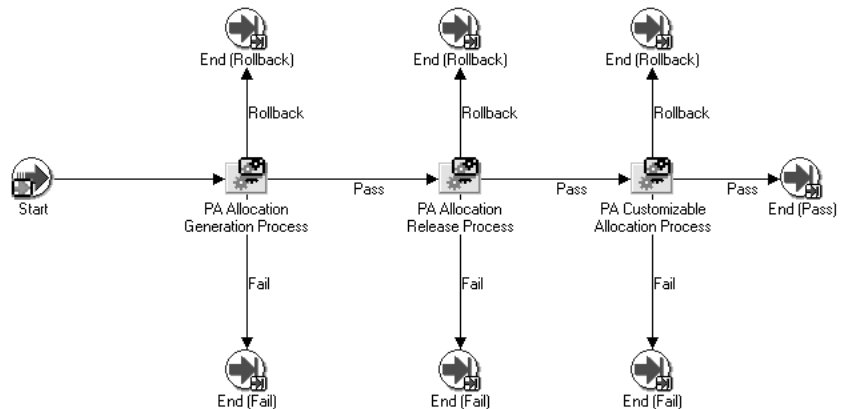
- PA Summarization Process: page 6 – 46



PA Allocation Process

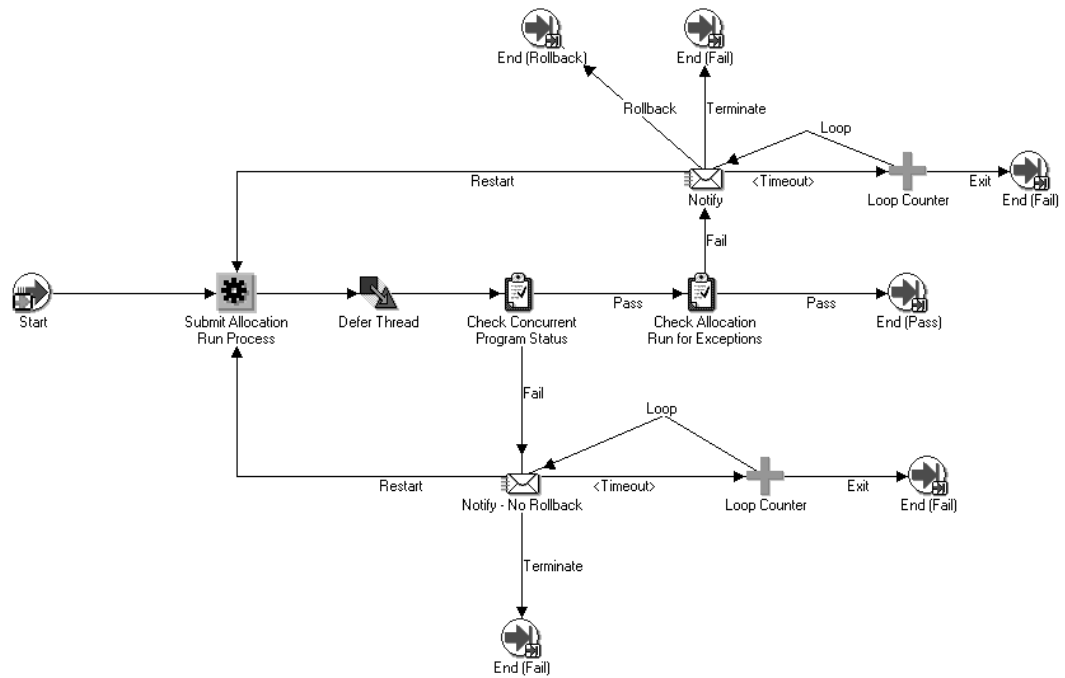
Purpose: Manages the Projects allocations run. This process calls other processes:

- PA Allocation Generation Process: page 6 – 41
- PA Allocation Release Process: page 6 – 42
- PA Customizable Allocation Process: page 6 – 43



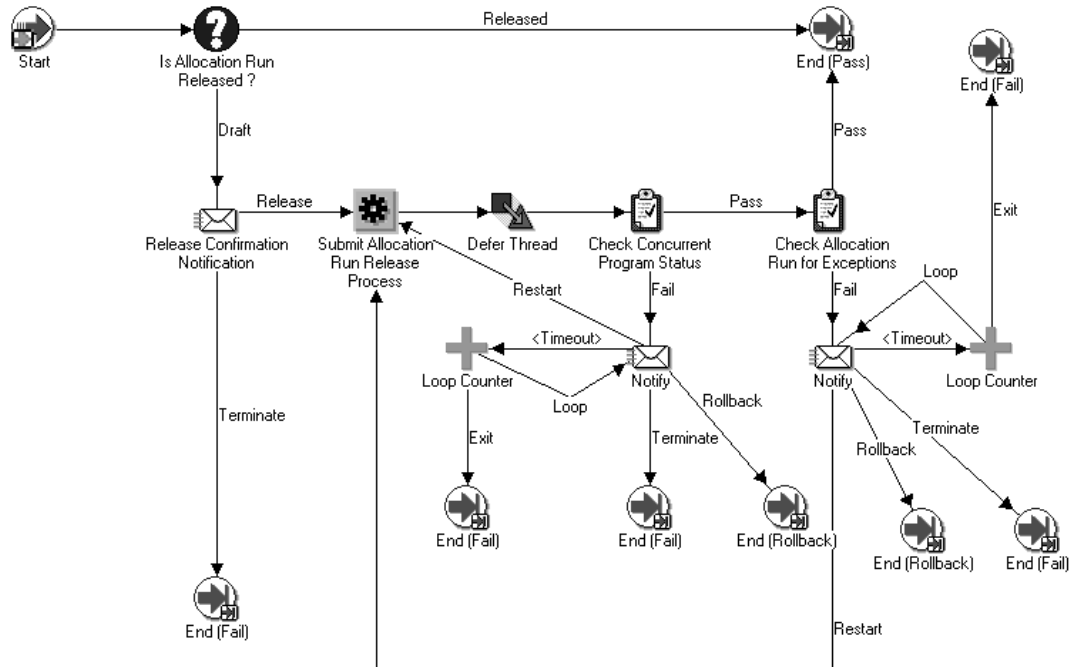
PA Allocation Generation Process

Purpose: Submits an allocation run.



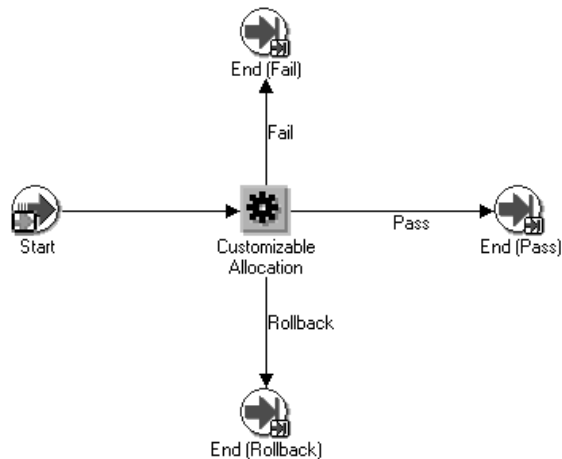
6 – 42 Oracle Projects User Guide

Purpose: Releases an unreleased allocation run.



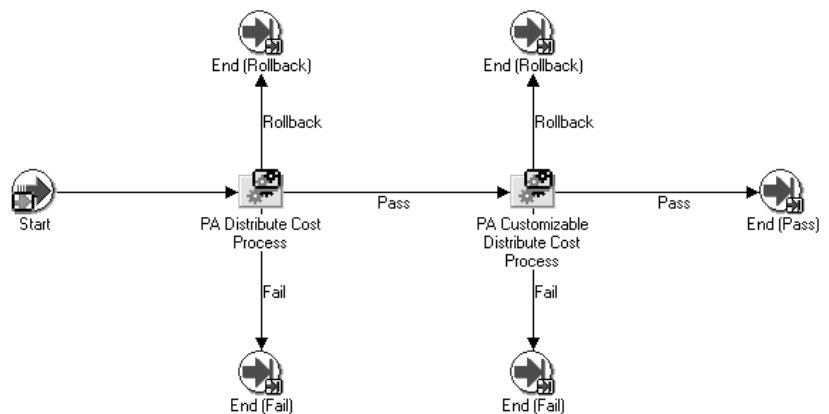
PA Customizable Allocation Process

Purpose: You can customize this process for reporting, checking data, or similar tasks.



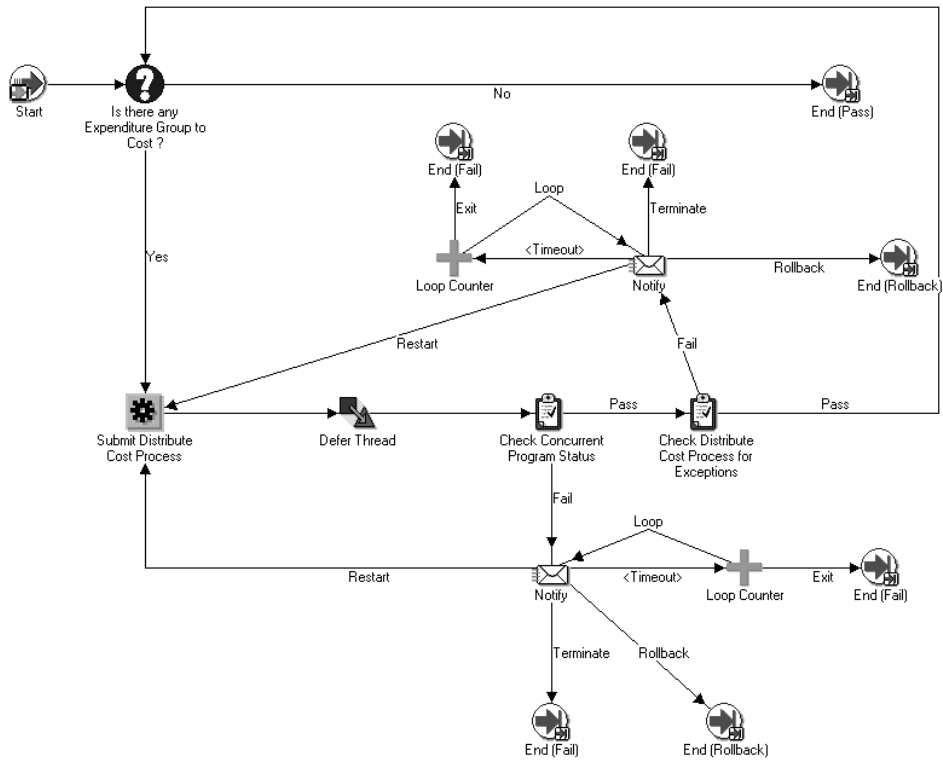
PA Cost Process

Purpose: Distributes allocated costs by calling two subprocesses, PA Distribute Cost Process: page 6 – 44 and PA Customizable Distribute Cost Process: page 6 – 45. The PA Customizable Distribute Cost Process can restart the PA Distribute Cost Process.



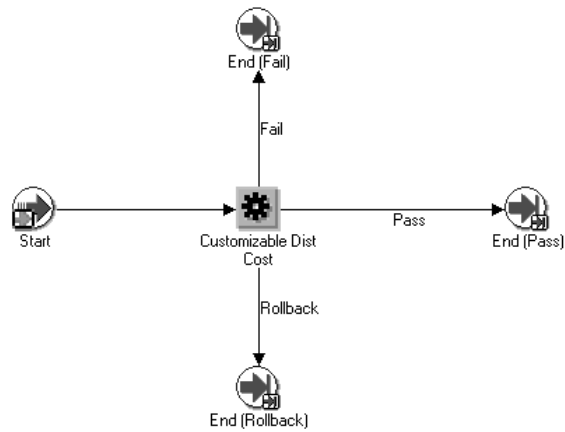
PA Distribute Cost Process

Purpose: Distributes the costs for the expenditures generated by the allocation run.



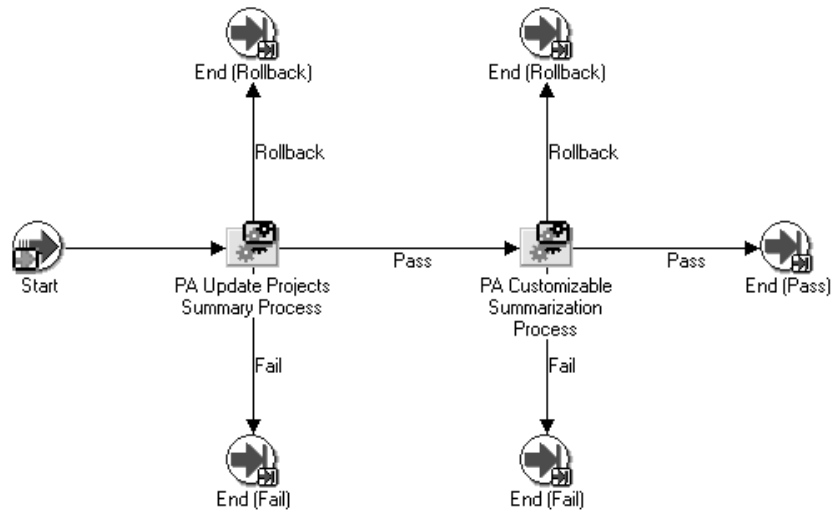
PA Customizable Distribute Cost Process

Purpose: You can customize this process for reporting, checking data, interfacing costs to Oracle General Ledger, posting to General Ledger, restarting the PA Distribute Costs Process, or similar tasks.



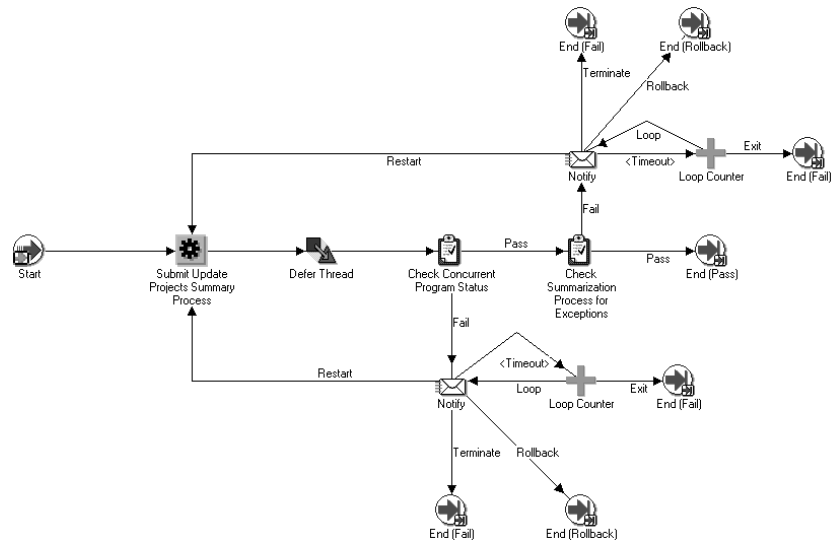
PA Summarization Process

Purpose: Summarizes allocated costs by calling two subprocesses, PA Update Projects Summary Process: page 6 – 47 and PA Customizable Summarization Process: page 6 – 48. The PA Customizable Summarization Process can restart the PA Update Projects Summary Process.



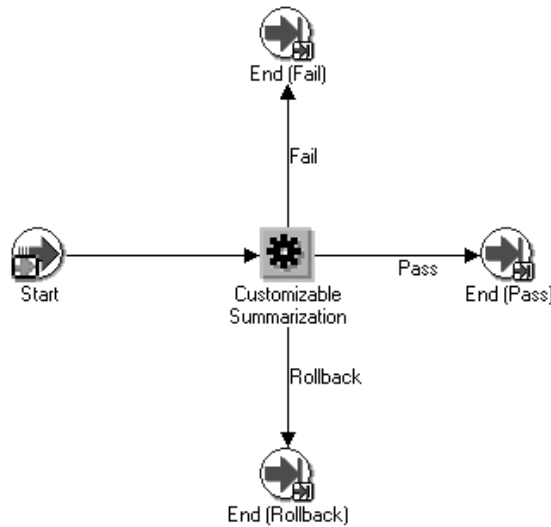
PA Update Projects Summary Process

Purpose: Summarizes the costs for the expenditures generated by the allocation run.



PA Customizable Summarization Process

Purpose: You can customize this process for reporting, restarting the PA Update Projects Summary Process, checking the data, or similar tasks.



Timeout Attribute

The timeout attribute sets the amount of time that a user has to respond to a notification. The default value is 1440 minutes (24 hours). The workflow timeout attribute executes three times. (For example, if the timeout value is 1440 minutes, the actual time that elapses before the step-down autoallocation stops is 4320 minutes, equivalent to 72 hours.)

If the person notified by the workflow does not respond after the attribute executes three times, the step-down autoallocation stops.

For information on backing up and modifying the Timeout attribute, see: *Oracle Workflow Guide*.

See Also

AutoAllocations: page 6 – 28

Troubleshooting Allocations and AutoAllocations

This section describes possible problems and solutions for creating allocation rules, allocations drafts, and AutoAllocations.

Troubleshooting Allocation Rules

In the Targets window, the system does not display a list of values for the Project and Task fields.

You may have entered a combination of attributes (for example, project organization, project type, class category, and class code) that does not apply to any project in the system.

The list of values in the Parameters window of the PRC: Generate Allocations Transactions process does not display the rule that I'm looking for.

The rule may not be currently in effect. Allocation rules are available only within a certain time period, as defined by the Effective Dates fields in the Allocation Rule window.

(If a rule is in effect on the day you create a draft run for the rule, you can release the draft later, even if the rule is no longer in effect.)

Troubleshooting Allocation Runs

The pool amount is different from what I anticipated.

Check for one or more of the following conditions:

- If you specify a percentage to allocate from a resource list (in the Resources window), the rule calculates the pool amount using both the percentage specified in the Allocation Pool % field (Sources window) and the percentage specified in the Resources window.
- The amount included in the source pool can change each time you run the allocation. To create a stable source pool, define each project and task individually, either by specifying the source project and tasks in the Project Sources region in the Sources window, or by using a fixed amount as the source.
- For any run period, the rule creates the allocation pool during the time period defined by the amount class and run period. The amount class is based on the allocation period type (Allocation Rule window) and the amount class (Sources window).

Troubleshooting AutoAllocations

A step down autoallocation set appears to run, but stops before executing all the steps. There are no exceptions on the report.

Check for one or both of the following conditions:

- The Auto Release setting for the allocation rule, timeout setting, and Oracle Workflow notification parameters may be interacting in a way that stops the autoallocation run.

If Auto Release is deselected on the Allocation Rule window, then Oracle Workflow processes the allocation rule. The workflow timeout attribute (set to a certain number of minutes) executes three times. If the person notified by the workflow does not respond in that amount of time, the step down autoallocation stops at that point in the autoallocation set. See: Processes for the PA Step Down Allocation Workflow: page 6 – 38; see: Timeout Attribute: page 6 – 48.

- The directory used for the debug log written by Oracle Workflow is set incorrectly. Set the `utl_file_dir` parameter in the `init.ora` file to the same directory that is specified in the PA: Debug Log Directory profile option (see: PA: Debug Log Directory: page B – 8). If the two do not match, the PA Step Down Allocation workflow will fail (return an exception).

CHAPTER

7

Capital Projects

This chapter describes how to create and maintain capital projects in Oracle Projects. It provides a brief overview of capital projects and explains how to create, place in service, adjust, and account for assets in Oracle Projects.

Overview of Capital Projects

Capital Projects (**US** Vision Services US: USD)

Summary Project Amounts

Project	Project Name	Expensed	CIP	Interfaced	Total
Construction	Construction	0.00	94,376.30	220,681.19	315,057.49
Research & Devel	Research & Devel	0.00	458,837.08	0.00	458,837.08

Generate...

Lines

Assets

You use capital projects to collect construction-in-process (CIP) and expensed costs for assets you are building. When you are ready to place the asset in service, you generate asset lines from the CIP costs in Oracle Projects. You can send these lines to Oracle Assets to become depreciable, fixed assets.

About Capital Projects

You define and build capital assets in Oracle Projects using information specified in the project work breakdown structure (WBS). You define and assign the grouping method and levels for CIP costs to summarize them for capitalization. You can review and adjust the summarized CIP costs if necessary.

You can adjust capital project costs before and after capitalization. For example, you may want to split the costs collected under common tasks into multiple CIP assets **before** you place them in service. Or, you may need to account for additional costs incurred **after** capitalization, since Oracle Projects allows you to place assets in service

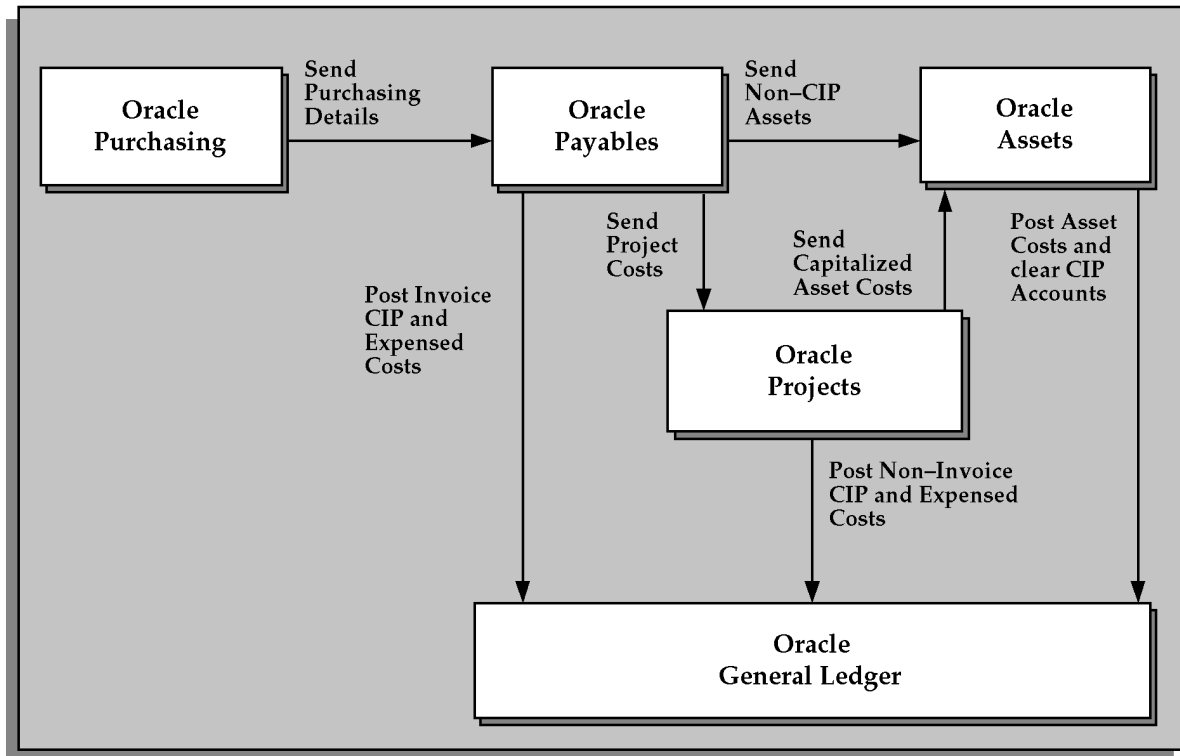
before completion of a project. You can also reverse capitalize an asset, if necessary.

When your CIP asset is built and ready to be placed in service, you can send the associated capitalized costs as asset lines to Oracle Assets. Oracle Assets places these imported mass addition lines in a holding area, where your fixed assets department can post the capitalized costs to become assets. Now you can begin using and depreciating your assets. You can review detail project transactions associated with the asset lines in Oracle Projects and Oracle Assets if necessary.

Capital Projects Processing Flow

You can enter expenditure items associated with building capital assets in Oracle Projects. You also can collect supplier invoice costs for your capital projects from Oracle Purchasing and Oracle Payables into Oracle Projects. When you are ready to place the CIP asset in service, you can send the associated capitalized asset lines from Oracle Projects to Oracle Assets to become fixed assets. You use AutoAccounting in Oracle Projects to post to the appropriate CIP and expense accounts in Oracle General Ledger.

Figure 7 – 1 System Integration Flow



Creating Purchase Orders for Capital Projects

When you create a purchase order for a capital project in Oracle Purchasing, you can enter a project, task number, and expenditure type for each project-related distribution line. You match this purchase order to an invoice in Oracle Payables, and then send the appropriate lines to Oracle Projects.

You can use the asset category to assign an inventory item's cost on a purchase order to an asset on a capital project in Oracle Projects. You define default asset categories for inventory items in Oracle Purchasing. After you match the purchase order to an invoice, and interface the invoice from Oracle Payables, Oracle Projects assigns the inventory item's cost to an asset on the project that has the same asset category as the inventory item.

If you assign purchase order distribution lines to asset clearing accounts instead of projects, Oracle Payables matches the purchase

order to an invoice and sends the lines to Oracle Assets using the Mass Additions interface.

If both a project and an asset clearing account are used in the distribution line, the following occurs:

- If the project is a capital project:
 - Oracle Payables posts the costs to the asset clearing account and the costs remain there until you place the asset in service in Oracle Projects.
 - You can send the costs to Oracle Projects after you post the invoice to Oracle General Ledger.
 - You cannot send costs to Oracle Assets from Oracle Payables when you run Mass Additions.
- If the project is a contract or indirect project:
 - Oracle Payables posts the costs to the asset clearing account and, if you have sent the costs to Oracle Projects, Oracle Assets interfaces the costs to an asset cost account when you post the transaction from Oracle Assets to Oracle General Ledger.
 - You can send the costs to Oracle Projects after you post the invoice to Oracle General Ledger.
 - You **can** send costs to Oracle Assets from Oracle Payables when you run Mass Additions.

A distribution line can have both a project and an asset clearing account only if the Account Generator process is set up to create the asset clearing account as the account segment, or if you enter the distribution line manually.

Charging Supplier Invoice Lines to Projects

The procedure for sending supplier invoice lines to Oracle Assets depends on whether or not the lines are associated with a capital project.

If the Invoice is Associated with a Capital Project

CIP Lines: You cannot send Payables supplier invoice lines directly from Payables to Assets if the invoice lines are associated with a capital project and are CIP lines. Instead, in Oracle Payables:

- Create the distribution lines on a supplier invoice

- Post the distribution lines to Oracle General Ledger.

In Oracle General Ledger, your Account Generator setup determines to which accounts the invoices are posted. The usual practice is to charge capital projects to CIP accounts.

- Interface those lines to Oracle Projects

Then, in Oracle Projects, place the asset in service and interface the costs to Oracle Assets.

Expense Lines: You can send distribution lines from Oracle Payables directly to Oracle Assets by using the Mass Additions process in Oracle Assets. See: Create Mass Additions from Invoice Distributions in Oracle Payables *Oracle Assets User's Guide*.

If the Invoice is Associated with a Contract or Indirect Project

You can send supplier invoice lines that are associated with contract or indirect projects directly from Payables to Assets. To do so, use the Mass Additions process. See: Create Mass Additions from Invoice Distributions in Payables *Oracle Assets User's Guide*.

In Oracle General Ledger, your Account Generator setup determines to which accounts the invoices are posted. The usual practice is to charge contract and indirect projects to expense accounts.

Charging Labor, Expense Reports, Usages, and Miscellaneous Transactions

You enter labor, expense reports, asset usage, and miscellaneous transactions for your capital project in Oracle Projects. The Distribute Labor, Expense Report, and Usage and Miscellaneous Costs processes charge the capital project costs to a CIP account in Oracle General Ledger. Your AutoAccounting setup determines these accounts. Oracle Projects is the subsidiary ledger for your CIP accounts in General Ledger. You can review the details for your CIP accounts by querying your capital projects in Oracle Projects.

Placing CIP Assets in Service

You enter a date placed in service for the CIP assets that are completed for a capital project. Then, you can run the Generate Asset Lines process, which uses the grouping method and levels you define to summarize all costs (supplier invoice, labor, expense reports, usages, and miscellaneous transactions) into asset lines. You associate these

asset lines with one or more assets and send the lines to Oracle Assets to become fixed assets.

Creating Fixed Assets from Capital Projects

You run the Interface Assets process to send asset lines from Oracle Projects to Oracle Assets. This process merges the asset lines into one mass addition line for each asset. The mass addition line appears in the Prepare Mass Additions Summary window in Oracle Assets as a merged parent with a cost amount of zero and a status of MERGED. The line description is identical to the description of the supplier invoice expenditure item in Oracle Projects.

For example, you would see the following lines in Oracle Assets for an asset interfaced from Oracle Projects. When you run the Post Mass Additions process, Oracle Assets assigns the same asset number to these lines. See: Group Supplier Invoices in Capitalization Information: page 17 – 200.

Queue	Description	Cost	Merge Parent	Category
POST	CELL RADIO	0.00	Yes	EQUIPMENT.TRANSMISSION
MERGED	COMPUTER SERVICES	3,442.00	No	EQUIPMENT.TRANSMISSION
MERGED	OTHEREXPENSES	1,150.00	No	EQUIPMENT.TRANSMISSION
MERGED	LABOR	22,332.21	No	EQUIPMENT.TRANSMISSION
MERGED	MATERIAL	19,251.00	No	EQUIPMENT.TRANSMISSION

Table 7 – 1 Lines in Oracle Assets for Assets Interfaced from Oracle Projects (Page 1 of 1)

Oracle Assets places the mass addition in the POST queue if you completely defined the asset in Oracle Projects, and it is ready for posting. Oracle Assets places the mass addition in the NEW queue if the asset definition is not complete; you must enter additional information for the mass addition in the Prepare Mass Additions window, and then update the queue status to POST. You do not need to change the queue status for lines with a status of MERGED.

Use the Post Mass Additions process to create fixed assets from your mass addition lines. When you run the Create Journal Entries program, Oracle Assets creates journal entries to the appropriate CIP and asset cost accounts in Oracle General Ledger. For CIP assets, the CIP account comes from the asset lines generated in Oracle Projects

and the asset account comes from the asset category associated with the asset.

See Also

Integrating with Oracle General Ledger: page 13 – 10

Integrating with Oracle Purchasing and Oracle Payables: page 13 – 40

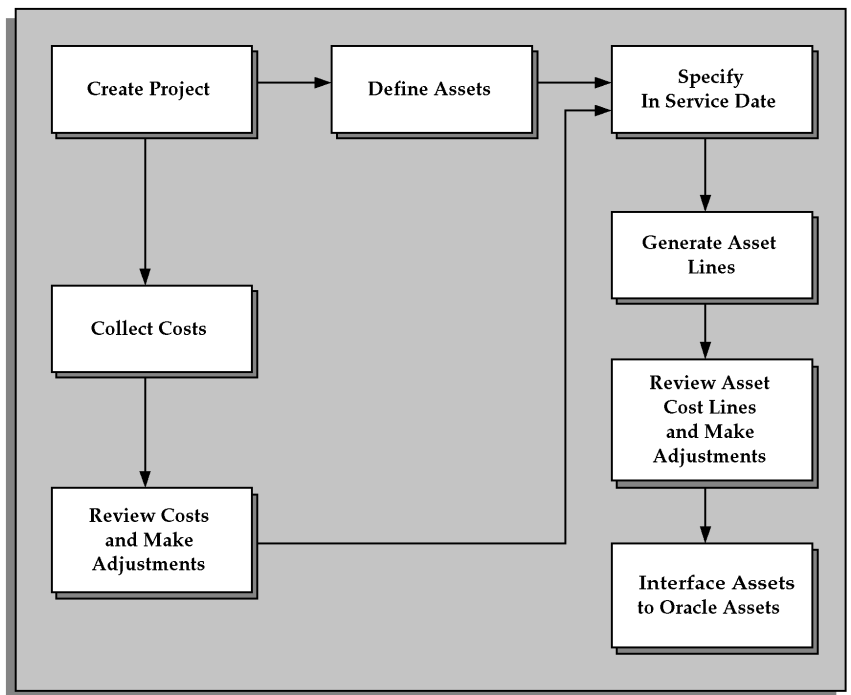
Creating a Capital Asset in Oracle Projects

Create a capital project to collect construction-in-process (CIP) costs you want to place in service and send to Oracle Assets to become fixed assets.

You create an asset in Oracle Projects for each CIP asset you want to place in service. You generate summarized asset lines for each asset, which you can interface to Oracle Assets when the asset is ready to be placed in service.

Figure 7 – 2 illustrates the capital projects flow in Oracle Projects before you send capitalized asset lines to Oracle Assets.

Figure 7 – 2 Capital Project Flow



► **To create a capital asset in Oracle Projects:**

1. Create a new capital project and WBS using a project template whose project type is set up for a capital project. Update project and task details if necessary. See: Creating a New Template: page 2 – 29.

You can also copy an existing capital project. Assets associated with the existing project (and attachments to the assets) will be copied to the new project. See: *Creating a New Project from a Project Template or Existing Project*: page 2 – 32.

2. Update the Transaction Controls, as appropriate, including which transactions can be capitalized by employee, expenditure category, expenditure type, or non-labor resource. See: *Specifying Which Transactions Can Be Capitalized*: page 7 – 10.
3. Collect CIP and expensed costs for your capital project. Make adjustments if necessary.
4. Define CIP assets. See: *Defining Assets*: page 7 – 12.
5. Specify grouping levels and grouping level types within the WBS. You can then associate assets with the various grouping levels. See: *Assigning Assets to Grouping Levels*: page 7 – 17.
6. Specify the date in service for completed assets in your capital project. See: *Placing an Asset in Service*: page 7 – 22.
7. Generate Asset Lines. See: *Generating Summary Asset Lines*: page 7 – 23.
8. Run the Interface Assets process. See: *Sending Asset Lines to Oracle Assets*: page 7 – 29.

Specifying Which Transactions Can Be Capitalized

You must specify whether to capitalize or expense each transaction charged to a capital project. The capitalizable classification is similar to the billable classification for transactions charged to a contract project; the task and transaction controls you define determine the default value for this classification.

► **To specify the level at which a transaction can be capitalized:**

1. Decide at which level you want to specify if a transaction can be capitalized, then navigate to the appropriate window:

Control Level	Window
Entire Task	Task Details
Employee	Transaction Controls
Expenditure Category	
Expenditure Type	
Non-Labor Resource	
Expenditure Item	Expenditure Items (Tools menu)

Table 7 – 2 Capitalizability Controls (Page 1 of 1)

2. Select the Capitalizable check box for the task control level you want.
3. Save your work.

Defining Assets

In Oracle Projects, you can define assets you plan to build during the project. To define a CIP asset for a capital project, enter asset information, such as the date placed in service, asset location, employee assignment, and corporate asset book.

During project type setup, you specify whether the asset definitions must be complete in Oracle Projects before you can place the asset in service. See: Project Types: page 17 – 196.

► **To define assets in the Capital Projects window:**

1. Navigate to the Capital Projects window.
2. In the Find Capital Projects window, find the capital project for which you want to define assets.
3. In the Capital Projects window, choose Assets.
4. Enter asset information in the Assets window.

To create a CIP asset, you must at least the Asset Name and Description.

5. Save your work.

► **To define assets in the Projects window:**

1. Navigate to the Projects window.
2. In the Find Projects window, find the capital project for which you want to define assets.
3. In the Projects, Templates Summary window, choose Open.
The Project, Templates window opens.
4. For Options, choose Asset Information, Assets.
5. Enter information for an asset. You can use the down arrow key or Edit, New Record from the menu if you want to enter more than one asset for this capital project.

To create a CIP asset, you must enter the Asset Name and Description.

6. Save your work.

Assets Window Reference

You must enter asset information when you define an asset in Oracle Projects. The Interface Assets process sends all asset information to Oracle Assets except for the asset name and estimated date in service.

Asset Name

The asset name must be unique within the project. You cannot change the asset name after you place the asset in service in Oracle Projects.

Asset Number

An asset number uniquely identifies each asset. You can enter a unique asset number, or use automatic asset numbering in Oracle Assets during the Mass Additions process. You cannot update this field after you send the asset to Oracle Assets.

If you enter an asset number, it must be unique and not in the range of numbers reserved for automatic asset numbering in Oracle Assets. You can enter any unique number that is less than the number in the Starting Asset Number field in the System Controls form, or you can enter any non-numeric value.

Description

The description of the asset you are building. You cannot update this field after you send the asset to Oracle Assets.

Asset Category

The asset category determines the default asset cost account and depreciation rules for the asset after you send the asset to Oracle Assets. You cannot update this field after you send the asset to Oracle Assets.

Oracle Projects provides you with a list of asset category values defined in Oracle Assets and associated with the corporate book of the CIP asset.

Asset Key

The asset key allows you to group assets or identify groups of assets. It does not have financial impact; rather, you can use it to track a group of assets independently of the asset category.

Book

The corporate depreciation book of the asset. Oracle Assets defaults financial information from the asset category, book, and date placed in service for your asset after you send it to Oracle Assets.

Oracle Projects provides you with a list of corporate book values defined in Oracle Assets which match the Oracle Projects set of books. You can have multiple corporate books associated with one set of books in Oracle Assets.

Estimated In Service Date

The date you estimate placing the asset in service. Use the Estimated Date In Service to query and review assets you expect to be in service.

Location

Expected physical location of the asset after it is placed in service. Oracle Projects provides you with a list of valid locations defined in Oracle Assets.

Units

The number of units of the asset. You cannot update this field after you send the asset to Oracle Assets. For example, if you are building two assembly machines, enter 2 units for the asset.

(Optional) Employee Name and Number

The employee (not the project owner) responsible for the asset when it is placed in service.

Depreciate

Check the Depreciate check box if you want to depreciate the asset in Oracle Assets.

Actual Date In Service

The actual date you place the asset in service and begin using it. The date can be in the current or a prior accounting period. You cannot change this date after you place the asset in service in Oracle Projects.

You may want to begin creating and reviewing asset lines prior to the period you intend to place the asset in service. You can enter a date in a future accounting period.

The Interface Assets process automatically rejects an asset with a future date in service.

Amortize Adjustments

Check the Amortize Adjustments check box if you want to amortize the catchup depreciation on a cost adjustment over the remaining life of the asset. If you do not check Amortize Adjustments, Oracle Assets expenses the catchup depreciation expense for the adjustment in one period.

If you check this check box, you cannot uncheck it once the asset has been interfaced to Oracle Assets.



Attention: If you select this field and reverse capitalize the asset, Oracle Assets will amortize the catch up depreciation on the negative cost adjustment over the remaining life of the asset. Therefore, the depreciation expense per period on the original asset cost will not match the backout depreciation expense per period to account for the asset cost reversal in Oracle Assets.

Depreciation Account

The expense account to which you want to charge the asset's depreciation. You cannot update this field after you send the asset to Oracle Assets. You must specify a Book before you can enter a depreciation expense account.

See Also

Asset Setup Information *Oracle Assets User's Guide*

Use Grouping Levels to Summarize Asset Costs

Grouping levels control how Oracle Projects summarizes expenditure items into CIP asset lines. You can group by project, top task, or lowest level task. For example, if you group at the project level, Oracle Projects summarizes all capitalizable costs at all task levels into asset lines at the project level. If you group at a top task level, Oracle Projects summarizes all tasks below that top task into asset lines for that top task. See: *Assigning Assets to Grouping Levels*: page 7 – 17.

If you have summarized the top task in the WBS branch, you cannot also summarize at the lowest level. For example, if Top Task 1 is a grouping level, you cannot also group at Task 1.1.1. If Task 2.2.1 is a grouping level, you cannot group at Top Task 2. If you group at the project level, you cannot group at any top or lowest level task.

You also use the grouping method assigned to your project type to summarize expenditure items.

Grouping level types determine whether you can associate assets with the grouping level.

For examples of grouping levels and grouping level types, see: *Examples of Grouping Levels*: page 7 – 18 and see: *Example of Grouping Level Types*: page 7 – 18.

Specifying Grouping Level Types

You can change the grouping level type at any time. If you change a grouping level type from Specific Assets to Common Costs, Oracle Projects deletes existing asset assignments from the grouping level. Changing the grouping level after you have interfaced assets does not affect the asset lines previously sent to Oracle Assets.

► **To specify grouping level types:**

1. Navigate to the Find Projects window and enter selection criteria for a capital project.
2. Select a project and choose Open.

The Projects, Templates Summary window opens.

- To group by project, select Asset Information (in the Options area), select Asset Assignments, and then choose Detail.
- To group by task, choose Tasks (in the Options area). In the Find Tasks window, enter selection criteria. In the Tasks window, select a task and then choose Options.

3. For the project or each task, choose a grouping level type:
 - **Specific Assets:** Select this option to associate assets with the project or task. The Generate Asset Lines process generates asset lines from the specific assets and costs you associate with this grouping level.
 - **Common Costs:** Select this option to group projects or tasks that capture costs you want to allocate to multiple assets. You cannot associate assets with this grouping level type. The Generate Asset Lines process creates unassigned asset lines for your common cost grouping levels, and then you can allocate these common costs across assets.
4. Save your work.

Assigning Assets to Grouping Levels

To associate an asset with the CIP costs incurred to build it, assign the asset to a grouping level.

Oracle Projects associates with the specified asset all the asset lines created from capitalizable expenditure items for a grouping level. If you associate multiple assets with the same grouping level, you must assign or allocate the asset lines to the various assets manually.

► To assign assets to grouping levels:

1. Navigate to the Find Projects window, find your capital project, and then choose Open.

The Projects, Templates window opens.

2. Select a project and choose Open.

The Projects, Templates Summary window opens.

- To group by project, select Asset Information (in the Options area), select Asset Assignments, and then choose Detail.
- To group by task, choose Tasks (in the Options area). In the Find Tasks window, enter selection criteria. In the Tasks window, select a task and then choose Options. Assign a specific asset for each task that is in a Specific Asset grouping level. In the Task Options window, select Asset Assignment.

You can assign assets only to grouping levels with a type of Specific Assets.

3. Choose the assets you want to assign to the grouping level.

4. Save your work.

Example of Grouping Level Types

You set up a construction management or an administrative task to capture project management activities. These costs do not apply to any specific asset. When the project is complete, you use a standard procedure to split the costs over all the assets. You associate these tasks with a grouping level so you can create asset lines from them, but you use a grouping level type of Common Costs so you can use the Split Asset Lines window to assign the costs to various assets manually.

Examples of Grouping Levels

Figure 7 – 3 to Figure 7 – 6 illustrate four possible variations of grouping levels for a single capital project:

Figure 7 – 3 Group at Project level

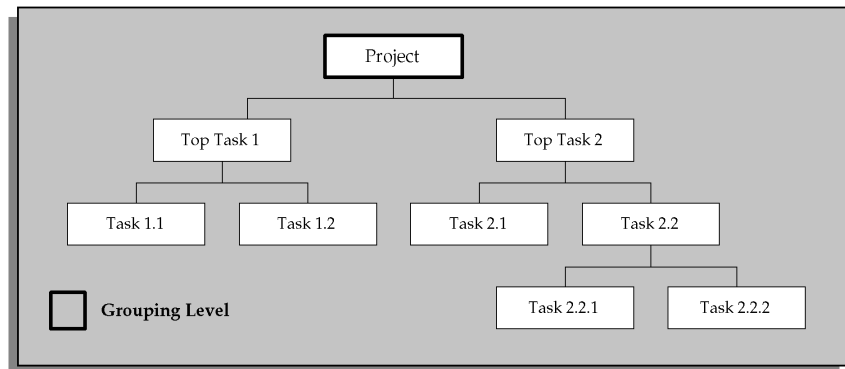


Figure 7 –4 Group at Top Task level

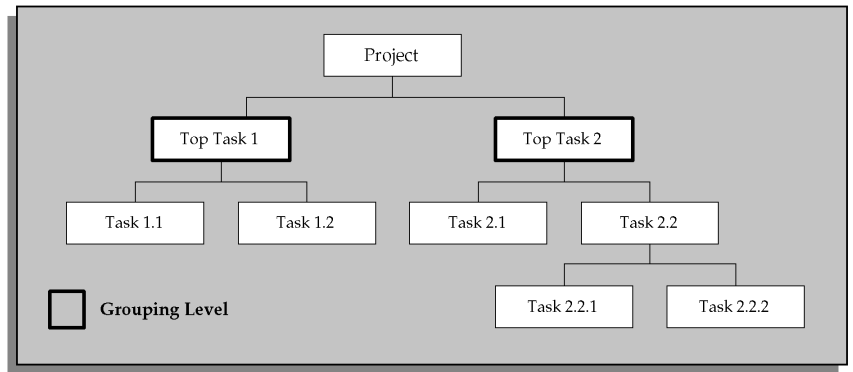


Figure 7 –5 Group at lowest level Tasks

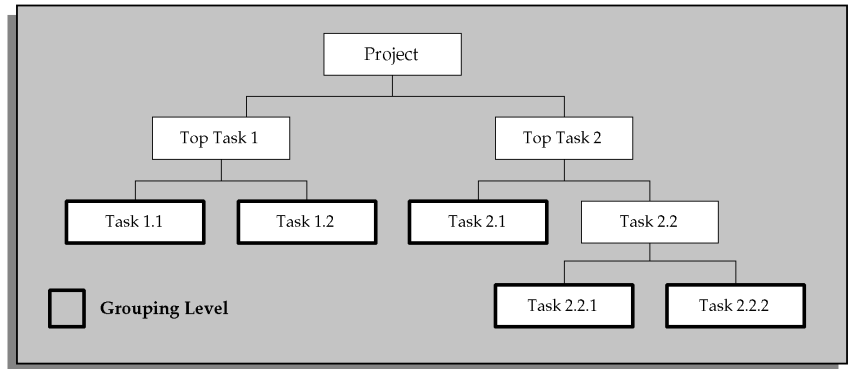
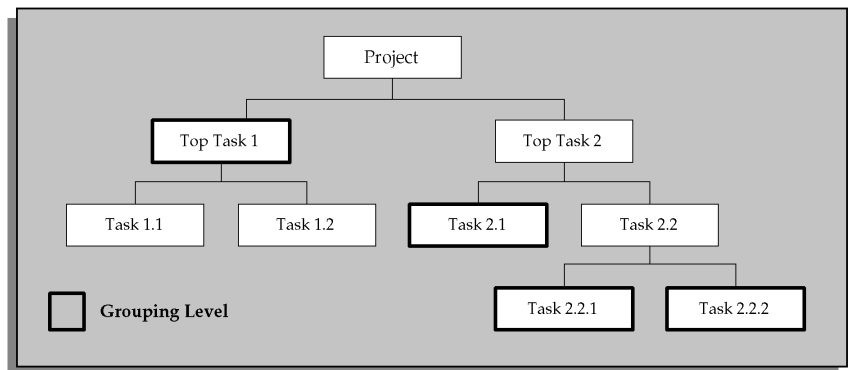


Figure 7 –6 Group at different levels in each WBS



Example of Grouping and Asset Assignment

Figure 7 – 7 Example of a Capital Project

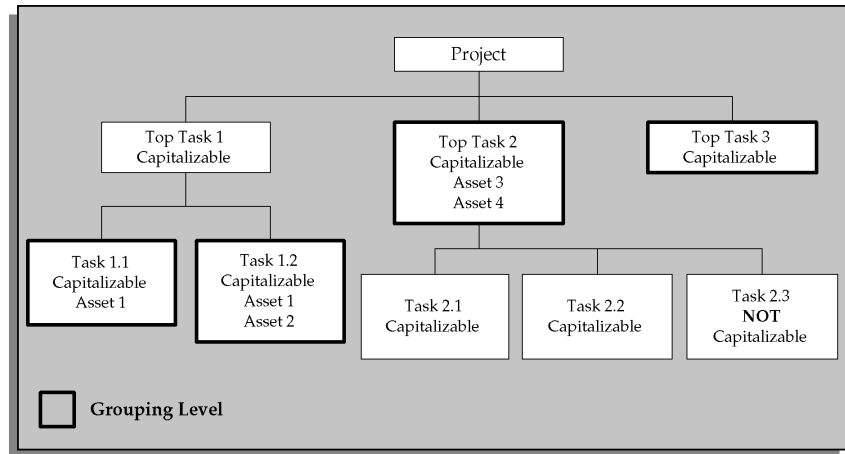


Figure 7 – 7 illustrates an example of a capital project. All transactions on all tasks, except for Task 2.3, are capitalizable, and the following applies:

Grouping levels:

- You create asset lines for Task 1.1, Task 1.2, Top Task 2, and Top Task 3 grouping levels
- You charge expenditure items to Tasks 2.1 and 2.2, and they are grouped together into asset lines for Top Task 2
- You can charge expensed transactions only to Task 2.3, because it is not capitalizable

Grouping level types:

- Task 1.1, Task 1.2, and Top Task 2 grouping levels have a type of Specific Assets
- Top Task 3 has a Common Costs grouping level type. Asset lines are created, but specific assets cannot be assigned to this grouping level
- You have to manually assign assets to the asset lines created for Top Task 3

Asset assignments:

- You associate Asset 1 with Task 1.1 and Task 1.2 (Single Asset associated with multiple grouping levels)
- You associate Asset 1 and Asset 2 with Task 1.2, and Asset 3 and Asset 4 are to Top Task 2 (Multiple assets associated with a single grouping level)

Placing an Asset in Service

When the CIP asset is complete, you place it in service. If your project has more than one CIP asset, you can place each asset in service as it is completed; you do not have to complete the entire project to place an asset in service. You place an asset in service by entering the Actual Date In Service for the asset. Although you can collect expensed costs for a capital project, you cannot capitalize these costs.

The Actual Date In Service can be a past, current, or future date. After you enter the date, generate and interface the asset lines. Oracle Assets will calculate and record how much depreciation should have been taken for the asset.

► **To capitalize CIP asset costs (place an asset in service):**

1. Navigate to the Capital Projects window.
2. Find the capital project whose assets you want to place in service by entering search criteria, such as estimated in service date, project name or number, project type, organization, key member, or class code, in the Find Capital Projects window.

In the Capital Projects window, Oracle Projects displays the summarized expensed, CIP, and capitalized project costs for each project. The Update Project Summary Amounts process updates expensed and CIP amounts; the Interface Assets process updates the capitalized amount.

3. Choose the capital project you want and choose the Assets button.
4. In the Assets window, enter the Actual Date In Service.

Compare the Estimated Date In Service to the Actual Date Placed in Service. If unreasonable discrepancies exist, verify that the Date Placed in Service for the asset is correct.

You cannot send assets to Oracle Assets whose Actual date placed in service is later than the current Oracle Assets period date.

5. Enter a complete asset definition for the asset if you have set up Oracle Projects to only allow complete definitions to be sent to Oracle Assets. (Oracle Projects prompts you to enter missing required fields when you attempt to save your work.)

For a list of the fields required for a complete asset definition, see: Defining Assets: page 7 – 12.

6. Save your work.

Creating and Preparing Asset Lines for Oracle Assets

After you place your assets in service, you can create, prepare, and send asset lines to Oracle Assets to become fixed assets. First, you must run the Generate Asset Lines process to create summary asset lines from capitalizable expenditure items and cost adjustments. Before you run the Interface Assets process, review and adjust your asset lines if necessary. You can perform the following adjustments on your asset lines:

- Associate assets with unassigned asset lines
- Change which asset is associated with a line
- Split an asset line into multiple asset lines and associate the new lines with different assets
- Change the line description

Generating Summary Asset Lines

The Generate Asset Lines Process creates summarized asset lines from those capitalizable expenditure items on tasks assigned to an asset with an actual date placed in service. Oracle Projects summarizes the lines based on the grouping level and the grouping method you choose for the project.

In addition, you use the Grouping Level to determine at what WBS level you summarize the costs. For example, you can summarize asset costs at the project, top task, or lower task levels. See: Using Grouping Levels to Summarize Asset Costs: page 7 – 16.

The AutoAccounting rules you define for CIP costs also influences the amount of summarization. Oracle Projects creates asset lines by summarizing by grouping level, grouping method, and CIP account.

Number of assets assigned to a grouping level	Expected results after running Generate Asset Lines process
One asset assigned to a grouping level	All detail costs charged to that level are automatically mapped to that asset.
More than one asset assigned to a grouping level, only one asset is placed in service	Asset lines created for all capitalizable costs, but no assets will be assigned to the lines

Table 7 – 3 Mapping Costs to Assets (Page 1 of 2)

Number of assets assigned to a grouping level	Expected results after running Generate Asset Lines process
The cost distribution is for purchased goods from a purchase order which has an inventory item with a default asset category	Detail will be mapped to the single asset that matches the default asset category for that grouping level.
More than one asset has the same asset category as the default asset category for a purchased item	Asset line created and asset category assigned, but the asset line will not be assigned to an asset automatically

Table 7 – 3 Mapping Costs to Assets (Page 2 of 2)

Example

For example, assume you assign one asset to a capital project at the project level. You charge the following expenditure items to the project, all of which are capitalizable and charged to the same CIP account:

Expenditure Type	Expenditure Category	Amount
Supplies	Operating	5,000.00
Supplies	Operating	20,000.00
Professional	Labor	5,800.00
Clerical	Labor	1,500.00
Computer	Service Center	14,000.00
Meals	Travel	300.00
Lodging	Travel	500.00
Air Travel	Travel	900.00
Miscellaneous	Operating	5,000.00
TOTAL COSTS		53,000.00

Table 7 – 4 (Page 1 of 1)

If you group by Expenditure Category, Oracle Projects creates the following asset lines:

Labor	7,300.00
Operating	30,000.00

Service Center	14,000.00
Travel	1,700.00

If you group by Expenditure Type, Oracle Projects creates the following asset lines:

Air Travel	900.00
Clerical	1,500.00
Computer	14,000.00
Lodging	500.00
Meals	300.00
Miscellaneous	5,000.00
Professional	5,800.00
Supplies	25,000.00

If you group All, Oracle Projects creates the following asset line:

All	53,000.00

Prerequisites

- ☐ Before you run the Generate Asset Lines process, cost the transactions by running the following processes:
 - Distribute Labor Costs
 - Distribute Expense Report Costs
 - Distribute Usage and Miscellaneous Costs
 - Distribute Supplier Invoice Adjustments
 - Interface Supplier Invoices to Oracle Projects
 - Distribute Total Burdened Costs (required if you are capitalizing burdened CIP costs)

You do not need to interface these costs to Oracle General Ledger before you create asset lines.
- ☐ Run the Update Project Summary Amounts process so you can see the total expensed and CIP amounts in the Capital Projects Summary window.

► To generate summary asset lines for a single project:

1. Navigate to the Capital Projects window.

2. Find the capital project for which you want to generate asset lines.
3. Choose the Generate button.
4. Enter the In Service Date Through. Oracle Projects creates asset lines from assets with an actual date placed in service before and including this date only.
5. Choose Include Common Costs, if you want to create asset lines from costs assigned to a grouping level type of Common Cost.
6. For PA Through Date, enter the last day of the PA period through which you want the costs to be considered for capitalization.

If you enter a date that falls within the PA period, the process uses the period ending date of the *preceding* period. If the date you enter is the end date of a period, the process uses the end date of that period. For example:

Period	Start Date	End Date	You enter...	The process uses...
P1	07-Jun-99	13-Jun-99	19-Jun-99	13-Jun-99
P2	14-Jun-99	20-Jun-99	20-Jun-99	20-Jun-99

Table 7 – 5 (Page 1 of 1)

7. Choose OK to submit the Generate Asset Lines process. Oracle Projects creates asset lines for your project and runs the Generate Asset Lines Report.
8. Review the Generate Asset Lines Report. See: Generate Asset Lines Report: page 11 – 29.

► **To generate summary asset lines for a range of projects:**

- Choose PRC: Generate Asset Lines process in the Submit Request window and enter the project or range of projects, and the in service date through you want to process. Choose Submit to generate asset lines and run the Generate Asset Lines Report. Review the report to verify the creation of asset lines.

See Also

Generate Asset Lines: page 11 – 27

Reviewing and Adjusting Asset Lines

You can review and adjust the asset lines created by the Generate Asset Lines process online.

Assigning an Asset to Unassigned Asset Lines

When the Generate Asset Lines process creates asset lines without an asset assignment, you need to manually assign an asset to the line before you can send it to Oracle Assets.

If you choose the Include Common Tasks check box when you generate asset lines, Oracle Projects creates asset lines from common task grouping levels (to which you cannot assign assets) as well as from specific assets grouping levels. Use the Common Costs grouping level type to group together tasks that capture costs you want to allocate to multiple assets. Refer to Table 7 – 3 in the preceding section for examples of how Oracle Projects maps costs to assets: Generating Summary Asset Lines: page 7 – 23.

► **To assign an asset to unassigned lines:**

1. Navigate to the Capital Projects window, choose the project you want, and choose the Lines button.
2. Choose Find from the toolbar to open the Find Asset Lines window.
3. Select No from the Assigned poplist within the Line region, and choose the Find button to find all unassigned asset lines for the project
4. *(Optional)* Choose Details to view detail information for an asset line so you can identify the asset to assign.
5. Assign an asset to the lines by entering the asset Name.
6. Save your work.

The Asset Line Details window is a folder. You can create folders to display additional fields. See: Customizing the Presentation of Data in a Folder *Oracle Applications System Administrator's Guide*).

Changing the Asset Assigned to an Asset Line

► To change the asset assigned to an asset line:

- Change the asset or description for an asset line in the Asset Lines window. (You cannot change asset lines you have already sent to Oracle Assets.)

Splitting an Asset Line

You can split an asset line and assign the split costs to multiple assets by using percentages or amounts. You can split lines with and without asset assignments.

► To split an asset line:

1. Navigate to the Capital Projects window, choose the project you want, and choose the Lines button.
2. Choose the asset line you want to split.
3. Choose the Split Line button to open the Split Asset Line window.
4. Enter the Asset Name and the Amount or Percentage you want to split. The Unassigned fields indicate the amount and percent of the asset line's cost you have not yet assigned to an asset.
5. Choose OK when you finish splitting the line.
6. Save your work.

Sending Asset Lines to Oracle Assets

Run the Interface Assets process to send valid asset lines to Oracle Assets to become fixed assets. Then, in Oracle Assets, you review the mass addition lines created from the project asset lines in the Prepare Mass Additions window. For Oracle Projects to send asset lines to Oracle Assets, the asset line must meet these specific conditions:

- The actual date in service must fall in the current or a prior Oracle Assets accounting period
- The CIP costs for summarized asset lines must be interfaced to Oracle General Ledger
- The CIP costs for supplier invoice adjustments must be interfaced to Oracle Payables
- A CIP asset must be associated with the asset line

The process creates one mass addition line in Oracle Assets for each asset line in Oracle Projects, assigning the asset information you entered for the CIP asset in Oracle Projects to the mass addition line in Oracle Assets. You use the Mass Additions process in Oracle Assets to prepare and post these mass additions to become assets. If you did not enter all required asset information in Oracle Projects, you must enter it for the line in the Prepare Mass Additions window before you can post it.

In Oracle Assets you can query and review assets posted to Oracle Assets by project number and task number in the Financial Inquiry window.

Prerequisite

- ☐ Interface your capital project CIP costs from Oracle Projects to Oracle General Ledger.
- ☐ Interface CIP costs for your supplier invoice adjustments to Oracle Payables
- ☐ If you are sending cost adjustments for an asset from Oracle Projects to Oracle Assets, ensure that the original mass addition was posted to Oracle Assets. If the mass addition has not become an asset, the Interface process will reject the adjustment line.

► **To send asset lines for a range of projects:**

- Choose PRC: Interface Assets process in the Submit Request window and enter the project or range of projects, and the In

Service Date up to which you want to process capitalized costs.
Choose Submit to start the process and run the Interface Assets
Report.

Adjusting Assets After Interface

You can adjust assets after they have been interfaced to Oracle Assets.

You can adjust expenditure items whose costs are sent to Oracle Assets, and collect new expenditure items for an asset in Oracle Projects after you capitalize and send the summarized asset lines to Oracle Assets. You process these cost adjustments in Oracle Projects and send them to Oracle Assets as adjusting asset lines.

Your cost adjustments can be either positive or negative. For example, you receive a credit memo from a supplier for a capitalized asset you sent and posted to Oracle Assets. When you send this credit memo to Oracle Projects, you create new negative asset lines, which you can send to Oracle Assets as a negative cost adjustment to the original asset.

Oracle Projects includes the information you enter for the asset on the adjusting asset line you send to Oracle Assets. Thus, if you specify to Amortize Adjustments to the asset in Oracle Projects, Oracle Assets amortizes any catchup depreciation amount for the adjustment over the remaining life of the asset. Otherwise, it expenses the catchup depreciation for the adjustment in the current period.

You cannot send cost adjustments to Oracle Assets until you have posted the original mass addition line (imported CIP asset line) to Oracle Assets using the Post Mass Additions process.

Adjusting Capital Project Costs

You can adjust capital project expenditure items associated with an asset you placed in service or sent to Oracle Assets. You can generate new asset lines for these adjusted expenditure items and interface them to Oracle Assets to adjust the original asset cost.

► **To adjust capital project costs:**

1. Navigate to the Expenditure Items window.
2. In the Find Expenditure Items window, enter your search criteria. To query by capitalizability or grouping level for your capital project, choose Yes in the Capitalizable poplist in the CIP status alternative region.
3. Choose the expenditure item you want to adjust.

4. Use the Tools menu to choose the type of adjustment you want to make. You can choose from the following options:

Capitalizable or **Non-Capitalizable** to change the capitalizability for an expenditure item.

Split to split the cost of the expenditure item. You must specify how you want to split the item in the Split Expenditure Item window.

Transfer to transfer the expenditure item to another project or task. You must specify the destination project or task for this transfer in the Transfer Expenditure Item window.

5. Save your work.
6. Generate Asset Lines. See: Generating Summary Asset Lines: page 7 – 23.

Reversing Capitalization of an Asset in Oracle Projects

If you placed an asset in service in error or sent inappropriate asset costs to Oracle Assets, you can reverse capitalization of the asset in Oracle Projects, and send the reversing line to Oracle Assets as an adjustment.

When you reverse a capitalized asset in Oracle Projects, Oracle Projects creates reversing (negative) asset lines to offset the asset lines previously interfaced to Oracle Assets. The asset remains in Oracle Assets with a value of zero. Oracle Projects does not delete or dispose of the asset in Oracle Assets. You can use functionality within Oracle Assets to retire the asset if you do not ever plan to re-capitalize the reversed asset.

Notes:

- If you reverse capitalize an asset in Oracle Assets that was created from Oracle Projects, this transaction is recorded in Oracle Assets only, and **not** in Oracle Projects. If this happens, you cannot manually update the corresponding asset in Oracle Projects.
- You cannot send a reversing line to Oracle Assets until you have posted the original asset using the Post Mass Additions process. You cannot make a negative cost adjustment (reversal) to a mass addition not yet posted to Oracle Assets.

Reverse Capitalize an Asset after Depreciation

Oracle Assets processes reversal transactions from Oracle Projects as negative cost adjustments to the original asset. If you have begun depreciating this asset, Oracle Assets must reverse the depreciation expense in the period you reverse capitalize the asset.



Attention: Before you reverse an asset, ensure that the Amortize Adjustment check box is unchecked for the asset. If you reverse capitalize an asset for which you specify to amortize adjustments, the monthly depreciation on the original cost will not equal the monthly backout depreciation generated to account for the asset cost reversal in Oracle Assets. Oracle Assets will amortize the catch up depreciation on the negative cost adjustment over the remaining life of the asset.

Recapitalize Reverse Capitalized Assets

If you need to recapitalize the asset, put the new Date Placed in Service in the Assets form in Oracle Projects so new asset lines will be created.



Attention: You must also manually change the Date Placed in Service for the asset in the Asset Workbench in Oracle Assets, as the Date Placed in Service cannot be updated through the Mass Additions process.

► To reverse capitalization of an asset:

1. Navigate to the Capital Projects window.
2. Find the project you want and choose Assets to open the Assets window.
3. Choose the asset you want to reverse capitalize.
4. Ensure that you do not amortize adjustments for the asset you want to reverse capitalize or recapitalize. You can specify whether to amortize adjustments in the asset definition. See: Defining Assets: page 7 – 12.
5. Choose the Reverse button.

Oracle Projects automatically enables the Reverse check box for the asset you want to reverse capitalize.

If you reversed the wrong asset, or you want to unreverse an asset before you run the Generate Asset Lines process, choose the asset and the Reverse button again to deselect the asset for reversal.

6. Save your work.

7. Run the Generate Asset Lines process to remove the Actual Date In Service from the asset and create reversing entries you can send to Oracle Assets. See: *Generating Summary Asset Lines: page 7 – 23.*
8. Review the Generate Asset Lines Report to verify creation of the reversing lines. See: *Generate Asset Lines Process: page 11 – 27.*

► **To recapitalize a reverse capitalized asset:**

1. Navigate to the Capital Projects window.
2. Find the project you want and choose Assets to open the Assets window.
3. Enter the Actual Date In Service for the reverse capitalized asset.
4. Save your work.
5. In Oracle Assets, change the date placed in service to match the Actual Date In Service you just entered. See: *Changing Asset Details Oracle Assets User's Guide.*
6. Generate asset lines to create new lines for the asset. See: *Generating Summary Asset Lines: page 7 – 23.*

See Also

Retiring an Asset *Oracle Assets User's Guide*

Generate Asset Lines Process: page 11 – 27

Depreciation Calculation *Oracle Assets User's Guide*

Abandoning an Asset in Oracle Projects

You can abandon an asset at any time.

Before Interfacing to Oracle Assets

You can abandon a capital project prior to interfacing to Oracle Assets by changing all transactions from capitalizable to non-capitalizable.

► **To change transactions from capitalizable to non-capitalizable:**

1. Navigate to the Expenditure Inquiry window.
2. Select all expenditures for the project where the Capitalizable column is checked.
3. From the Tools menu, choose *Non-Capitalizable*. If cost distribution has been run on the expenditures, the Cost Distributed column check box will change to unchecked.
4. Run the distribute labor, expense, and usage costs processes and the PRC: Distribute Supplier Invoice Adjustment Costs process. If you are using burdening, run the PRC: Distribute Total Burdened Costs process.
5. Interface the costs to GL and AP. When you post the costs to Oracle General Ledger, the system will create entries that transfer these costs from the CIP account to the Expense account. The AutoAccounting rules you set up determine these accounts.

After Interfacing to Oracle Assets

If you have already interfaced the asset you want to abandon, you must reverse capitalize the asset in the Assets window in Oracle Projects. You also need to send the reversing lines to Oracle Assets to account for the abandoned CIP asset.

The Generate Asset Lines process creates reversal lines and the Interface Assets process interfaces them to Oracle Assets.

See Also

Specifying Which Transactions Can Be Capitalized: page 7 – 10

Reversing Capitalization of an Asset in Oracle Projects: page 7 – 32

Accounting for CIP and Asset Costs in Oracle Projects and Oracle Assets

You use AutoAccounting to determine how to account for all your project costs in Oracle Projects. For capital projects, you must define AutoAccounting to account for CIP and expensed costs.

When you use Oracle Projects to track your CIP projects, Oracle Projects acts as a subsidiary ledger for CIP assets, and Oracle Assets acts as a subsidiary ledger for capitalized (depreciable) assets only.

Accounting for Capital Project Costs

As you charge costs to the capital project, you post them to Oracle General Ledger.

Example

Charge transactions to a capital project

In the following example, Project X is a capital project set up to collect costs to build a new clean room. You charge the following supplier invoice and expenditure items to the project:

Supplier Invoice for architectural drawings	2,000.00	
Supplier Invoice for building contractor	5,500.00	
Supplier Invoice for building permit penalty	200.00	7,700.00
Employee Labor for project management		1,400.00
Employee Expense Report for miscellaneous costs		250.00
Usage for use of company car		55.00
TOTAL COSTS		9,405.00

Account for supplier invoice transactions

You post the supplier invoice transactions from Oracle Payables to Oracle General Ledger before sending them to Oracle Projects. Workflow determines the accounts for the following journal entry for Oracle Payables:

Dr.	CIP – Clean Room	7,700.00	
Cr.	Accounts Payable Trade		7,700.00

Account for expenditure items entered in Oracle Projects

You also post the following employee labor, employee expense report, and usage transactions for your capital project to Oracle General Ledger from Oracle Projects:

Dr.	CIP – Clean Room	1,705.00	
	Cr.	Payroll Liability	1,400.00
	Cr.	Expense Report Liability	250.00
	Cr.	Usage Clearing	55.00

Account for a capitalizable adjustment

After reviewing the costs, you determine that you cannot capitalize the building permit penalty. You change the transaction from capitalizable to non-capitalizable. Oracle Projects interfaces the supplier invoice adjustments to Oracle Payables when you run the Distribute Supplier Invoice Adjustment process. Oracle Payables posts the reversing entry for the adjustment to Oracle General Ledger. (You originally posted the invoice to Oracle General Ledger as part of the 7,700 supplier invoice transactions.)

Dr.	Building Permit Penalty Expense	200.00	
	Cr.	CIP – Clean Room	200.00

In this example, after you post these transactions, the total amount in Oracle General Ledger for the CIP–Clean Room account is 9,205.00.

Accounting for Asset Costs

Each asset line created by the Generate Asset Lines process has an associated general ledger account. After you capitalize (place in service), send, and post the asset line to Oracle Assets, you can run the Create Journal Entries process in Oracle Assets to create a journal entry to transfer the costs from the CIP account (associated with the asset lines) to the asset cost account (determined by the asset category assigned to the asset).

In the example of Project X, assume the clean room is complete and ready to be placed in service. You capitalize and send the CIP costs for Project X to Oracle Assets. Oracle Assets creates the following journal entry after you post the asset:

Dr.	Clean Room – Asset Cost	9,205.00	
	Cr. CIP – Clean Room		9,205.00

See Also

Overview of AutoAccounting: page 17 – 237

Asset Accounting *Oracle Assets User's Guide*

CHAPTER

8

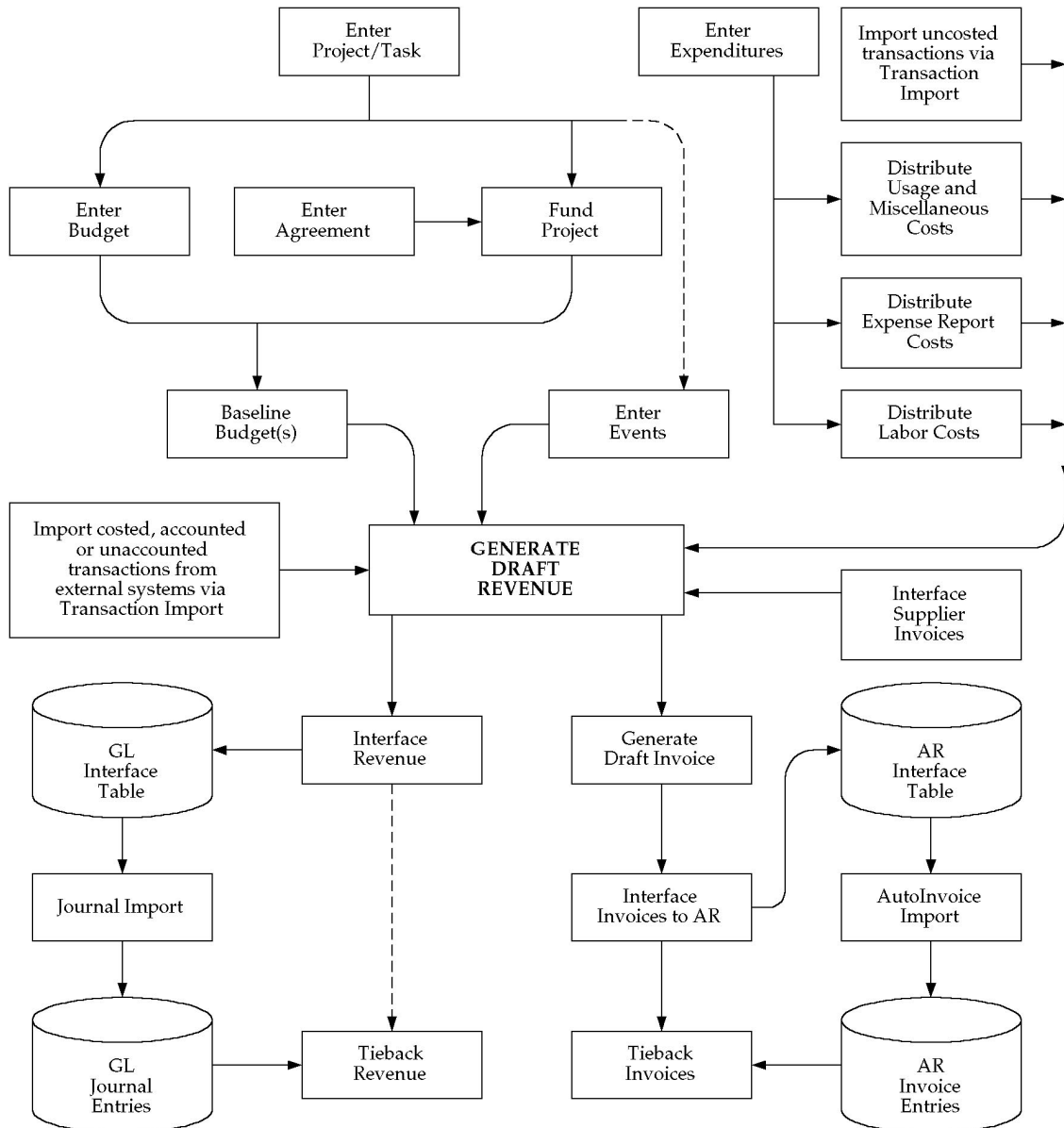
Billing

This chapter describes everything you need to know about billing for contract projects in Oracle Projects.

Billing Data Flow for Contract Projects

Figure 8 – 1 illustrates the billing flow for contract projects.

Figure 8 – 1 Billing Flow



Overview of Contract Projects

You use contract projects to track activities, cost, revenue, and billing for services performed for and reimbursed by a customer. Types of contract projects include:

- Time and Materials
- Fixed Price
- Cost Plus

Setting Up a Contract Project

A contract project is the primary billing unit at which you specify the following information:

- Revenue accrual method
- Billing method
- Billing cycle
- Other billing information

For contract projects, you define additional information for revenue accrual and billing based on requirements of your project, your company, and your customer. For example, you can enter billing terms, bill rates and billing titles, status, and credit receivers for contract projects only.



Attention: If you enter funding for a project at the top task level, you must define the invoice formats (for labor, non-labor, and retention) for the project at the top task level or below. You define your invoice formats in the Revenue and Billing Information window. If you do not define invoice formats at the proper level, an invoice will not be generated for your project. If you enter funding for a project at the project level, you can define invoice formats at any level.

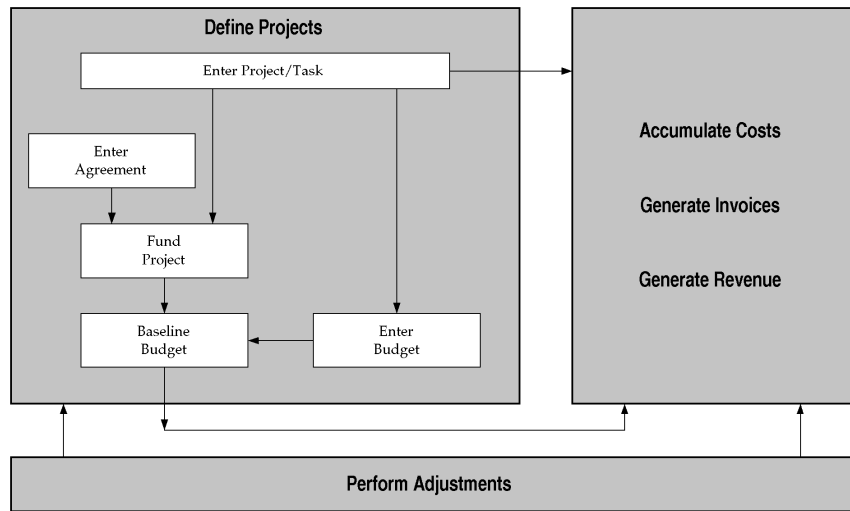
Figure 8 – 2 illustrates the flow for entering a contract project.

► **To enter a contract project:**

1. Enter a contract project and tasks. See: Project Entry: page 2 – 32.
2. Enter an agreement. See: Entering an Agreement: page 8 – 10.
3. Fund the contract project. See: Funding a Project: page 8 – 12.

4. Enter and baseline a draft revenue budget for the contract project. See: Entering a Budget Draft: page 3 – 15 and Baselining a Draft: page 3 – 36.
5. Optionally perform adjustments. See: Adjusting Expenditure Items: page 4 – 53 and Types of Invoice Adjustments: page 8 – 68.
6. Distribute costs, and generate invoices and revenue. See: Submitting Requests: page 10 – 2.

Figure 8 – 2 Setting Up Contract Projects

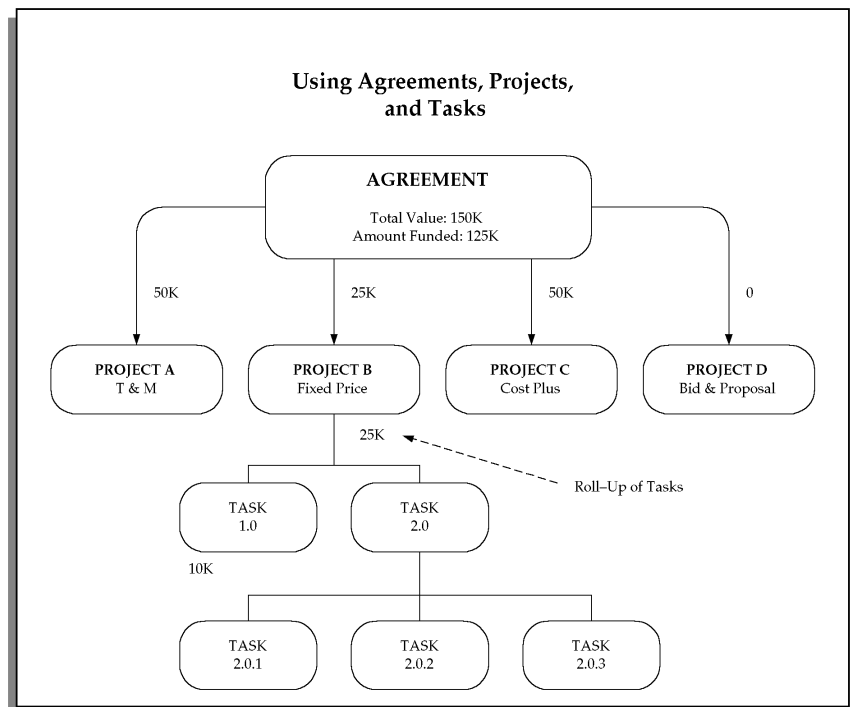


Funding a Contract Project

You must fund your project before your project can accrue revenue and be billed. Funding is the step that relates the currency amount associated with a customer agreement to a specific project. The amount of project funding must equal the current approved project budgeted revenue amount to successfully baseline your budget.

Oracle Projects allows you to define agreements, projects, and tasks to organize your project work. Figure 8 – 3 represents an example of how you can use an agreement to fund projects and tasks. In the pages that follow, we discuss using agreements to fund projects and tasks in more detail.

Figure 8 – 3



Agreements

The screenshot shows the 'Agreement' form in Oracle Projects. The title bar reads 'Agreement (**US** Vision Services US: USD)'. The form is divided into several sections:

- Customer Information:** Customer Name is 'Computer Service and Ren...', Customer Number is '1006'.
- Agreement Details:** Number is 'Fixed Price No. 1', Type is 'Purchase Orders', Amount is '200,000.00', Terms is '30 Net'. There is a checkbox for 'Hard Limit' which is unchecked. The Expiration Date field is empty.
- Description and Administrator:** Description is a long empty text field. Administrator is 'Marlin, Ms. Amy', and Creation Date is '04/15/1997'.
- Summary Amounts:** A table-like section showing financial data:

Amount	200,000.00	Net Revenue	148,876.74
Allocated, Not baselined	0.00	Revenue Write-Off	
Allocated, Baselined	130,000.00	Invoiced Amount	130,000.00
Not Allocated	70,000.00		
- Buttons:** 'Funding Summary' and 'Funding' buttons are at the bottom right.

In Oracle Projects, an agreement represents any form of contract, written or verbal, between you and one of your customers. For example, an agreement may correspond to a purchase order, a continuing service agreement, or a verbal authorization.

Enter an agreement

An agreement provides the funding for projects and tasks. Each agreement you define includes the following items:

- A customer
- A hard or soft revenue limit
- A currency amount

If you specify a hard revenue limit on an agreement, Oracle Projects prevents revenue accrual or billing activity beyond the amount you funded to a particular project or task.

If you specify a soft revenue limit, Oracle Projects provides a warning telling you when revenue for the project exceeds the amount you funded.

No project or task can accrue revenue without an agreement to fund its revenue budget.

Fund multiple projects with one agreement

You can allocate funds from one agreement to any number of projects or top level tasks.

If your business deals with very large contracts, and divides the work into separate projects, you can use one agreement to fund each project. You may assign some of the work to a time and materials project; other work to a fixed price project; and other related bid and proposal work to an indirect project. The agreement represents the total value of the contract; you can generate separate invoices for each contract project.

An agreement may also represent a contract to do an unspecified amount of work over a period of time. You can create a project as various pieces of work are defined. Each of these projects is funded by the master agreement.

Revenue and invoices

All revenue and invoices in Oracle Projects are recorded against an agreement, and all items that accrue revenue against an agreement subsequently bill against the same agreement.

See Also

Entering Agreements: page 8 – 10

Funding a Project: page 8 – 12

Project Funding Inquiry Window Reference: page 8 – 14

Interfacing the Agreement Number to Receivables: page 13 – 65

Fund at the Project Level

There are many different ways to link agreements, projects and tasks. You should learn the benefits and consequences of each method to create clear policies.

One Customer, One Agreement

Use one agreement when you have one customer and one contract.

This should be your most frequent case. All revenue is accrued and all invoices billed against the same agreement. The same agreement may fund other projects without changing the operation of the system.

Multiple Customers, One Agreement Per Customer

Use one agreement per customer when you have multiple paying customers, no additional contracts with any of the customers, and a requirement to invoice by contract.

All revenue and invoice amounts are divided between each customer according to the percentage splits defined for the project in the Customers and Contract Project options. Each run of generate revenue creates one draft revenue per customer, and each run of generate invoice creates one draft invoice per customer. The draft revenue and invoices for all customers contain the same items, but with prorated amounts.

Oracle Projects supports only one percentage split between customers over the life of a project. If you want to change an existing percentage split, you must cancel all invoices and recalculate all revenue.

One Customer, Multiple Agreements

Use multiple agreements when you have one customer, but several contracts, and a requirement to invoice by contract.

For example, a project that was originally funded by one purchase order is subsequently funded by another purchase order. The customer has requested that each invoice reference a specific purchase order. In this case, you would fund the project from two agreements, one for each purchase order. The PRC: Generate Draft Invoice process produces two invoices — one against each purchase order agreement from which funding is used.

When revenue is generated, hard limit agreements are used first in order of expiration date, followed by soft limit agreements in order of

expiration date. When revenue fills one agreement and starts on the next, all of the items in the current revenue run are prorated between the two agreements. This proration follows through on the invoices.

Multiple Customers, Multiple Agreements Per Customer

Use multiple agreements per customer when you have multiple paying customers, multiple contracts with one or more of the customers, and a requirement to invoice by contract.

This method is a combination of the two above. Revenue is prorated between the customers according to their percentage split. For each customer, revenue is placed on agreements by the same rules as for multiple agreements and a single customer.

Fund at the Task Level

One Customer, One Agreement

Use one agreement when you have one customer and one contract.

Use this method only if you want to accrue revenue cost-to-cost at the task level or impose hard or soft revenue limits at the task level.

Task level funding with one agreement does NOT create separate task invoices. However, you can define an invoice format to group expenditure items by task.

Case Study: Funding for Hard Limits at the Task Level

Fremont Corporation has a contract with XYZ Company for \$100,000. There are three phases to the project, each with a separate hard limit. Each phase is set up as a top task, and funded with a hard revenue limit:

- Task 1: Design (\$20,000)
- Task 2: Programming Services (\$60,000)
- Task 3: QA / Testing (\$20,000)

One Customer, Multiple Agreements

Use multiple agreements when you have one customer, but a requirement to create a separate invoice for each top task.

You can use this method to accrue revenue cost-to-cost or impose hard or soft revenue limits by task, as well as automatically create separate invoices by task.

To create separate invoices by task, you must use a different agreement to fund each task. If you use more than one agreement for a single task, the agreements are used according to the precedence described earlier for projects.

Entering Agreements

You can enter an agreement representing a purchase order, retainer letter, or any other funding agreement you make with a customer. When you record an agreement, you can specify payment terms for invoices against the agreement, and whether there are limits to the amount of revenue you can accrue and bill against the agreement.

From the Agreements window, you can open the Funding window to allocate funds to one or more projects (or to top tasks within a project), and to see how much unused funding remains for an agreement.

For any agreement, you can review the revenue and billing activity associated with the agreement, such as the amount of revenue accrued, the amount invoiced, and the amount of funding that is allocated and baselined.

► **To enter an agreement:**

1. Navigate to the Agreement window.
2. Enter the Customer who is providing the agreement funding.
3. Enter a Number to identify this agreement, such as the customer's purchase order number.

The agreement number must be unique for this customer and agreement type, although two customers can each have an agreement with an identical agreement number.



Attention: You cannot change this number once you create an invoice against this agreement and interface the invoice to Oracle Receivables.

4. Enter an agreement Type.
5. Enter the Amount of this agreement.

6. Enter the accounts receivable Terms (defined in Oracle Receivables) for any invoices funded by this agreement.
7. Choose the Hard Limit check box to impose a hard limit on revenue accrual and invoice generation for projects funded by this agreement. Otherwise, Oracle Projects imposes a soft limit.
A hard limit prevents revenue accrual and invoice generation beyond the amount allocated to a project or task by this agreement. **A soft limit** issues a warning when revenue accrual and invoice generation exceed the amount allocated to a project or task.
8. Enter the date this agreement expires. If you do not want to enforce an expiration date, leave this field blank.

If you generate draft revenue or an invoice for projects funded by this agreement after the agreement expiration date, Oracle Projects creates distribution warnings for revenue and invoices.
9. Optionally enter a Description of this agreement.
10. Enter the administrator of this agreement.
11. Enter a Creation Date.
12. Save your work.

Viewing Agreement Summary Amounts

► To view agreement summary amounts:

- Query the agreement you want to review in the Agreement window. The Summary Amounts region displays the overall agreement amounts for the following:
 - Amount of the Agreement
 - Allocated, Not Baselined
 - Allocated, Baselined
 - Not Allocated
 - Net Revenue
 - Revenue Write-off
 - Invoiced Amount
- Choose the Summary button to view the funding and billing amounts for the agreement in more detail in the Summary Project Funding window.

- Choose Funding History in the Funding Summary window to view the allocation history for this agreement.

See Also

Agreements: page 8 – 6

Funding a Project

You can allocate an agreement's funds to a project or top-level task. You can divide these funds among several projects or tasks. In addition to allocating funds, you can reverse agreement funding from a project or task, up to the amount accrued or invoiced.

You cannot fund at the task-level for multiple-customer projects.

You can also view the funding line's baseline status for this project or task.

Only baselined funding is used for revenue or invoice generation.

► To fund a project:

1. Navigate to the Agreement form and query the agreement you want.
2. Choose the Funding button.
3. In the Fund Projects window, enter the number of the project you want to fund with this agreement. You can choose any active project that has been entered for this agreement's customer.
4. Enter the number of the top-level task you want to fund with this agreement. If you do not want to restrict funding for a particular task, leave this field blank.
5. Enter the Amount you want to allocate to this project or task.
6. Enter a Date to record when you allocated agreement funds to this project or task.
7. Save your work.

- ▶ **To review project funding information:**
 - Query the project or agreement in the Project Funding Inquiry form.
See: Project Funding Inquiry Window Reference: page 8 – 14.
- ▶ **To reverse funds from a project:**
 - Enter a negative amount if you want to reverse funds from a project or task and allocate the funds elsewhere, or to leave the funds available for future funding. You can decrease the funding amount up to the amount already accrued or invoiced for the project or task.

See Also

Fund at the Project Level: page 8 – 8

Fund at the Task Level: page 8 – 9

Project Funding Inquiry Window Reference

Project Funding Inquiry (US** Vision Services US: USD)**

Project Number **Time & Materials** Project Name **Time & Materials**
Top Task Number Task Name
Project Currency **USD**

Summary Amounts

Funding, Not Baselined	1,110.00	Net Revenue	502,705.58
Funding, Baselined	506,250.00	Revenue Write-Off	
Total Funding	507,360.00	Invoiced Amount	366,592.92

Summary by Agreement

Agreement Number	Top Task Number	Not Baselined	Baselined	Total
Time & Material # 1	1.0	0.00	93,750.00	93,750.00
Time & Material # 1	2.0	0.00	46,875.00	46,875.00
Time & Material # 1	3.0	0.00	90,625.00	90,625.00
Time & Material # 1	4.0	0.00	90,625.00	90,625.00

Customer Name **Business World -1**
Task Name **Planning**

Use this window to view information about project funding. For a given project, you can view the amount invoiced, the amount of net revenue accrued, the revenue write-off balances, as well as other funding information.

You can view summary amounts for funding allocated to a particular project by agreement and top level task, such as baselined amounts, the amount of revenue accrued and invoiced, as well as the customer providing agreement funding.

You can also use this window to view a history of project funding allocation, such as the incremental allocation amounts, and the allocation date.

Funding

Funding, Not Baselined: The total funding amount that is not baselined for this project or task.

Funding, Baselined: The total funding amount that is baselined for this project or task.

Total Funding: The total funding allocated to this project or task.

Billing

Net Revenue: The net amount of revenue accrued for this project or task, regardless of revenue transfer status.

Revenue Write–Off: The total amount of revenue write–off events.

Invoiced Amount: The total amount invoiced for this project, regardless of invoice transfer status.

Funding Summary by Agreement

Agreement Number: The agreement number from which funds are allocated.

Top Task Number: The task number to which funds are allocated, if you have funded your project at the top level task level.

Funding History Window

Date: The date this funding line was allocated.

By: The person responsible for allocating this funding line.

Amount: The incremental amount of agreement funding allocated by this detail funding line.

Baselined: This check box indicates whether the funding line is baselined.

Controlling Billing by Top Task

Control Billing by Top Task (**US** Vision Services US: USD)

Project Number Project Name

Top Tasks

Task Number	Task Name	Description	Ready to Accrue	Ready to Bill
1.0	Planning	Planning	☒	☒
2.0	Operations Analysis	To identify and document both current an	☒	☒
3.0	Solution Design	Module Design	☒	☒
4.0	Build	Build for data conversion, interfaces and s	☒	☒
5.0	Documentation	Project Documents	☒	☒
6.0	Transition	Training and Testing	☒	☒
7.0	Production	Production migration	☒	☒
			☐	☐
			☐	☐
			☐	☐

You can control revenue accrual and invoices by the top task of a project.

► **To control billing by top task:**

1. Navigate to the Control Billing by Top Task window.
2. Find the project you want.
3. Indicate whether you want to hold, accrue, or bill:

Hold Accrual Choose this button to hold revenue accrual for this project at this top task.

Hold Billing Choose this button to hold billing for this project at this top task.

Ready to Accrue Choose this button if you are ready to accrue for this project at this top task.

Ready to Bill Choose this button if you are ready to bill for this project at this top task.

4. Save your work.

See Also

Accruing Revenue for a Project: page 8 – 28

Invoicing a Project: page 8 – 48

Quick Agreement / Funding Projects

Many companies have short-term projects, lasting one to ten days, which they want to bill. Oracle Projects provides an easy way to set up these short-term contract projects. You can create a project template that is associated with an agreement, funding, and baselined budgets. When you create a new project by copying the template, the agreement funding, and baselined budgets will also be copied to the new project.

The project template is funded with an agreement template; the revenue budget and funding may be baselined. When you copy a new project from the project template, you specify the customer in the Quick Entry options, and Oracle Projects copies the agreement, funding, and baselined budgets from the template to the project. You do not specify the amount of the budget in Quick Entry. Rather, you set up the project template with the appropriate revenue budget and funding amount. Thus, you may need to set up as many templates with appropriate funding amounts as needed for your projects. If the project is of short duration, you may elect to have a nominal agreement amount (such as \$1.00) with a soft limit.

► **To create a quick agreement project:**

1. Set up a Project Template with a Customer Quick Entry field and a customer defined in the project option.
2. Set up an Agreement Template with the same customer entered in the Customer option in the Project Template.
3. Within the Agreement Template, fund the Project Template at either the project or task level.
4. Create a revenue and /or cost budget for the Project Template. Baseline the budgets.
5. Copy the Project Template to a new project. The new project will be ready to bill as soon as it is created.

Project Templates for Quick Agreement

Project Options

When you are creating a project template that will be used to create a quick agreement, you must enter a customer in the Customer option of the project. You will use this customer in the Agreement Template that

creates the agreement/funding for the quick agreement project. You can only have one customer in a template that will be used to create Quick Agreement projects. The customer billing contribution must equal 100%. If you have more than one customer in the project template, you will not be able to associate the project template with an agreement template.

Define any other project and task options that are appropriate for the project. A Quick Agreement template has no special restrictions or requirements other than those noted in the above paragraph.

Quick Entry Setup

When creating a project template for quick agreement projects, you must enable the Customer field in the Quick Entry setup. You then select the customer relationship to use when creating the project customer (*primary*, for example). When you create a project by copying the template, you enter the appropriate customer in Quick Entry. The customer in the agreement template will be replaced by the customer you enter in Quick Entry.

Enable any other Quick Entry fields that are appropriate for the project. A Quick Agreement template has no special restrictions or requirements other than those noted in the above paragraph.

See Also

Project Template Design Considerations: page 2 – 16

Defining Quick Entry Fields: page 2 – 27

Agreement Template

To create a Quick Agreement, you set up an agreement template that will be associated with a project template.

A project created from the project template associated with the agreement template will have an agreement created for it with the values entered in the agreement template. The only exceptions are the Agreement Number and Expiration Date. The Agreement Number will be the same as the Project Number you enter in Quick Entry. The

Expiration Date will be based on the relationship between the project start date and the agreement template Expiration Date.

For example, if the project start date of the project template is January 1, 1996, the agreement template funding date is January 10, 1996, and the new project's start date is July 15, 1996, then the agreement for the new project will be created with an expiration date of July 25, 1996.

You create an agreement template the same way you create any other agreement.

Agreement templates can only be viewed in the Agreement Template Entry window. You cannot view agreement templates in the Agreement Entry window.

See Also

Entering Agreements: page 8 – 10

Funding a Project Template

Each agreement template that funds a project template can fund only one project template. Conversely, each project template can only be funded by one agreement template.

When you fund an agreement template, only project templates (not projects) will be listed in the Project List of Values.

When you create a new project from the project template associated with the agreement template, you enter a starting date for the project. The funding date for the new project will be based on the funding date you entered in the agreement template, adjusted by the difference between the project template start date and the project start date.

For example, if the funding date in the agreement template is January 1, 1996 and the project template has a start date of June 1, 1997, when you create a new project whose start date is July 15, 1996, The funding for the new project will have an allocation date of July 15, 1997.

You can fund agreement templates at either the project or task level.

Budgeting for Project Templates

Enter budgets for the project template you will use to create Quick Agreements. After the budgets are created, baseline the budgets. New projects created from the template will have baselined budgets equal to the amounts entered in the budgets for the project template.

See Also

Budget Entry: page 3 – 13

Copying a Template to Create a Quick Agreement Project

To create a Quick Agreement Project, you select a template to copy. Oracle Projects copies the template to the new project, along with the agreement, funding, and baselined budgets based on the following rules:

- If an agreement template is associated with the project template, the agreement and funding are copied. If a customer is specified in Quick Entry, the template customer is replaced with the specified customer. The agreement number is replaced with the project number. If a project start date is entered in Quick Entry, the agreement expiration date and funding allocated date are shifted accordingly.
- The funding, cost budget, and revenue budget are copied to the project. If these budgets are baselined, they are copied as baselined.
- If the project template has a baselined revenue budget and the new project has no project customer for a contract project, no agreement, funding, or baselined revenue budget will be copied. However, if there is a baselined cost budget, it will be copied as baselined and the baselined revenue budget will be copied as a draft revenue budget to the new project.
- If the template project has a baselined revenue budget but not baselined cost budget and the new project has a COST/COST, COST/EVENT, or COST/WORK distribution rule, the draft cost budget, if any exists, will be copied, along with the draft revenue budget, as well as agreement and funding, but with no baseline.

- If the Customer field in Quick Entry is null, the new project will have no customer, agreement, or funding. Any budgets will be copied as draft budgets.
- If Customer is not a Quick Entry field, the new project will have the same customer as the template and will also have an agreement, funding, and baselined budgets.
- If the customer entered in Quick Entry does not have a primary bill-to and ship-to site, you will receive an error message and will not be able to create the new project with that customer.
- If the customer entered in Quick Entry does not have a primary bill-to contact, you will receive a warning message but will still be able to create the new project with that customer.

Events

The screenshot shows the 'Event Details' window for a project named 'Fixed Price'. The window is titled 'Event Details (**US** Vision Services US: USD)'. It contains the following fields:

Project Number	Fixed Price	Project Name	Fixed Price
Task Number	1.0	Task Name	Conduct Research
Event Number	1	Event Type	Milestone
Event Date	02/16/1997	Organization	Consulting-East
Description	Progress payment		
Bill Amount	30,000.00	Revenue Amount	0.00
Bill Hold	No	Trans ID	1000

At the bottom right, there are two checkboxes: 'Revenue Distributed' (unchecked) and 'Billed' (checked).

Use the Event windows to enter and review events for a project or top task. Examples of events include an invoice reduction, a performance bonus, or a revenue write-off. You can also change the bill hold status of an event using these windows.

For transactions that involve foreign currencies, all amounts displayed in the Event windows are shown in the project currency.

There are two Event Window modes:

- **Project.** The Project mode Event Windows allow you to enter and view events for a single project only. You must enter a project number or name in the Find Project Events window before you can execute the query. If project security has been implemented, you can only select projects that you are allowed to see.
- **All.** The All mode Event Windows allow you to enter and view events across projects. You are not required to enter a project number or name in the Find Events window. You can structure your query to retrieve information across projects.

The mode in which you access the Event Window is determined by your user responsibility, as set up by your System Administrator. Under the Project Billing Super User and Project Costing Super User responsibilities, which are supplied by Oracle Projects, you have access to both modes.

► **To Review or Enter Events:**

1. Navigate to the Find Events window (Billing > Events).
 - To view or enter events in summary format, enter your search criteria and choose Find. See Event Summary Window Reference: page 8 – 24.
 - To enter a new event in the Event Details window, choose New. See Event Details Window: page 8 – 26.
2. From the Event Summary window, choose:
 - **Revenue** to view event revenue distribution lines information.
 - **Totals** to view the total bill amount and total revenue amount for the events displayed based on your search criteria.
 - **Open** to view all of the event information for a single event in one window. See: Event Details Window: page 8 – 26.

See Also

Event Types: page 17 – 162.

Event Summary Window Reference: page 8 – 24.

Event Details Window: page 8 – 26.

Event Revenue Distribution Lines Window: page 8 – 26.

Function Security for Event Windows: page 8 – 26.

Event Summary Window Reference

Use this window to view information about the events that meet your search criteria, or to enter new events. The Event Summary window uses folder technology, allowing you to customize the window to display the fields you want to view. The following information is available for display in this window:

Item	Description
Project Number	The number of the project for the event.
Project Name	The name of the project.
Task Number	The number of the top task for the event.
Task Name	The name of the top task.
Event Number	The number of the event.
Event Type	The event type.
Event Classification	The event classification of the event type.
Date	The date the event is eligible for processing.
Bill Amt	The bill amount if the event affects billing for this project / task.
Revenue Amt	The revenue amount if this event affects revenue accrual. The amount for write-off revenue may not exceed this project's unbilled receivables amount.
Description	The event description. Except for events having a classification of Write-Off, this description appears on the invoice line billing this event.
Organization	The organization name for the event. You assign organizations to events to credit project revenue to different organizations. You can also use events in AutoAccounting to account for revenue at the expenditure organization level.
Bill Hold Flag	The bill hold flag for this event. The options are: No – Do not hold from billing. Once – Hold from the next billing only. Yes – Hold from future billing indefinitely. Holding an event applies only to events that are billed, which does not include write-offs. You can update this flag from the Event Summary Window.

Table 8 – 1 (Page 1 of 2)

Item	Description
Billed	Indicates whether this event has been billed.
Revenue Distributed	Indicates whether this event's revenue has been distributed.

Table 8 – 1 (Page 2 of 2)

Event Details Window

Use the Event Details window to enter, modify, or review all of the information for a single event on one screen.

For field descriptions in the Event Details window, see Event Summary Window Reference: page 8 – 24.

Event Revenue Distribution Lines Window

The Event Revenue Distribution Lines window displays information about the revenue distribution lines for an event.

The following information is displayed for the selected event:

- Amount
- GL Account
- GL Account Description
- Draft Revenue Number and Line
- PA Date and Period
- GL Date and Period

Function Security for Event Windows

Use function security to control user access to the Event windows. Your system administrator customizes each responsibility at your site by including or excluding registered functions and menus of functions for a responsibility in the Responsibilities window. For more

information about function security in Oracle Projects, see Function Security in Oracle Projects: page C – 2.

The following user function names control the Event windows functions:

User Function Name	Restriction(s)
Invoice Events Maintenance	Enter and update invoice events
Revenue Events Maintenance	Enter and update revenue events

Table 8 – 2 (Page 1 of 1)

Accruing Revenue for a Project

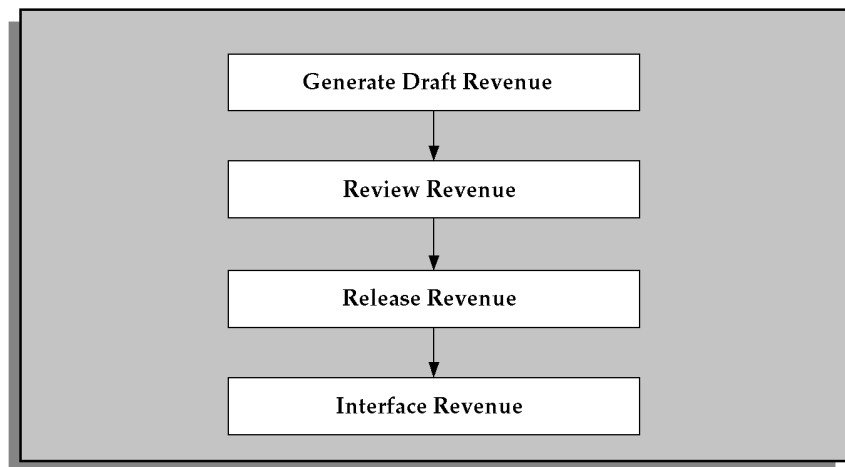
Oracle Projects generates revenue based on the transactions that you charge to your projects. You configure your projects to accrue revenue based on your company policies. You can review revenue amounts online, and can also adjust transactions; these transactions are then processed by Oracle Projects to adjust the revenue amounts for your project. Oracle Projects interfaces the revenue amounts to Oracle General Ledger.

When you generate revenue, Oracle Projects calculates revenue, creates event and expenditure item revenue, determines GL account codings, and maintains funding balances. You can generate revenue for a range of projects or for a single project.

Revenue Flow

The Oracle Projects revenue flow follows the steps detailed in Figure 8 – 4. This section describes each step, as well as procedures such as adjusting revenue and creating revenue events and hard limits.

Figure 8 – 4



Steps Before Generating Revenue

Oracle Projects provides control as to which projects are ready for revenue generation; it processes only funded, fully defined projects.

You must complete the following steps before generating revenue for a contract project in Oracle Projects:

1. Baseline the project budget

You must enter and submit an approved revenue budget and allocate funds to the project or task before you can baseline it.

2. Distribute costs for billable expenditures charged to your project

If you do not want to accrue revenue for a specific top task, uncheck the Ready to Accrue check box in the Control Billing by Top Task window. Oracle Projects assumes you want to generate revenue and invoices for all billable top tasks on contract projects.

See Also

Revenue Accrual and Invoice Generation Based on Percent Complete:
page 8 – 75

Baselining a Draft: page 3 – 36

Entering a Draft: page 3 – 15

Entering Agreements: page 8 – 10

Funding a Project: page 8 – 12

Submitting Requests: page 10 – 2

Generating Revenue: page 8 – 37

Revenue Generation Process

When you generate revenue, Oracle Projects first selects projects, tasks, and their associated events and expenditure items that are eligible for revenue generation. Oracle Projects next calculates the potential revenue and then creates revenue events and expenditure items.

Selection Criteria

Projects: Oracle Projects first determines if a project is eligible for revenue accrual. To accrue revenue, a project must meet the following criteria:

- Must have a status that allows revenue generation (for more information, see: Project Statuses: page 17 – 183)
- Must be a contract project
- Must have a baselined revenue budget
- Within the specified range (if you specify a start and end project number, for mass generation only)
- Must have expenditure items or events that are eligible for revenue accrual or transaction independent billing extensions that are assigned at the project type, project, or top task level

Expenditure Items: For each project selected, Oracle Projects then selects expenditure items that are eligible for revenue accrual based on the following criteria for items:

- Approved
- On a ready-to-accrue task
- Billable and cost distributed
- Not revenue distributed, partially distributed, or marked for revenue recalculation
- Occurred on or before the accrue through date

If the project uses cost-to-cost revenue accrual, items must also:

- Have project or task cost budgets that include burdened costs and revenue budgets that include revenue amounts

Without these amounts, Oracle Projects cannot successfully generate revenue for your project.

- Have a summarized cost distribution line which must be in a PA Period that ends on or before the accrue through date
- If the revenue accrual is based on percent complete, you must have entered percent complete at the funding level.

Events: For each project selected, Oracle Projects then selects events that are eligible for revenue accrual based on the following criteria for events:

- On a ready-to-accrue task
- Are not revenue distributed
- Have a completion date on or before the accrue through date
- Revenue amount not equal to zero

- Have an event type classification of Write-On, Write-Off, Manual, or Automatic

If the project uses cost-to-cost revenue accrual, events must also:

- Have the event type matching the event type that you specified for the cost-to-cost billing extension.

Billing Extensions: For each project selected, Oracle Projects then selects expenditure items and events that are eligible for revenue accrual based on the criteria that you define in your billing extensions. If you define transaction independent billing extensions, Oracle Projects executes these extensions for each project with an active billing assignment, even if there are no transactions to process. See also: Billing Extensions: page 19 – 67.

Calculate Potential Revenue

Oracle Projects next calculates the total potential revenue that can be accrued for each project. Potential revenue is the full revenue amount that could be accrued if enough funding is available. Projects that use task level funding calculate the potential revenue for each task, while projects that are funded at the project level have a single potential revenue amount for the project.

Oracle Projects calculates the bill amounts for all expenditure items when calculating revenue, except for cost and event billing projects, which do not bill expenditure items.

As-Work-Occurs (Time and Materials)

For projects that use as-work-occurs (or time and materials) revenue accrual, the total potential revenue is simply the sum of the revenue of all expenditure items plus events.

For these projects, the revenue for each expenditure item is calculated by applying a bill rate or markup. The bill rate or markup for each item is determined by using a precedence of rates, as follows:

Bill Rate Precedence for Labor: If any of the following labor billing terms exist, Oracle Projects uses the bill rate override or markup:

- Task or Project Employee Bill Rate Override
- Task or Project Job Bill Rate Override

The job is determined in the following order:

- Task Job Assignment Override

- Project Job Assignment Override
- Employee's Primary Job Assignment
- Task or Project Labor Multiplier

If both a task and project value exist, the task value takes precedence over the project value.

If none of the preceding billing terms exists, the Task Labor Schedule determines if the labor revenue is calculated with a Bill Rate or Burden Schedule.

When you create the Billing Schedules during setup, you specify if the schedule is based on employee or job criteria. Oracle Projects uses the bill rate or markup if the task labor bill rate schedule type is Employee, and uses the bill rate markup if the type is Job.

Oracle Projects determines the effective job for labor items from the task assignment override, then the project assignment override, and finally the primary job assignment. It then uses the job that was just determined along with the task job title override, project job title override, and primary job title, to determine the correct job billing title for each labor item

Oracle Projects determines the employee billing title for labor items from the task employee billing title override, the project employee billing title, and the primary employee billing title.

Bill Rate Precedence for Non-Labor: If any of the following non-labor billing terms exist, Oracle Projects uses the bill rate override or markup:

- Task or Project Non-Labor Resource Bill Rate Override
- Task Non-Labor Bill Rate Override
- Task or Project Expenditure Type Bill Rate Schedule for Non-Labor Resource Override
- Task Non-Labor Bill Rate Schedule for Expenditure Type

If none of the preceding billing terms exist, you will receive a generation error.

Items that have partially accrued revenue due to having previously reached a hard limit do not have their revenue and bill rates recalculated.

After all of the bill rates are assigned, Oracle Projects rejects those items for which no bill rate or markup is found, and creates distribution warnings.

Oracle Projects also calculates the bill amounts for each item for projects which accrue cost-to-cost revenue based on percent complete but bill on a time and material basis.

Cost-to-Cost (Percent Spent)

For projects using cost-to-cost revenue accrual method, Oracle Projects uses the following formula to calculate revenue to accrue for the revenue generation run:

Figure 8 – 5

$$\text{CCR}_{\text{RUN}} = \text{Lesser of (Remaining Funding Available if using hard limit) and} \\ \left(\left(\frac{\text{AC}}{\text{BC}} (\text{BR} - \text{ER}) \right) - \text{AR} \right)$$

Where, for a project or task:

CCR_{RUN} = Cost to cost Revenue for current run
AC = Actual total burdened cost through the PA Period on or before the accrue through date
BC = Budgeted baselined burdened cost *
BR = Budgeted baselined revenue *
ER = Entered event revenue
AR = Revenue previously accrued in PA Period on or before accrue through date

*Oracle Projects uses the cost and revenue budget types that you specify on the Cost-to-Cost billing extension.

Oracle Projects accrues the cost-to-cost revenue using an automatic event with an event type that you specified for the cost-to-cost billing extension. See: Billing Extensions: page 19 – 67.

See Also

Revenue Accrual and Invoice Generation Based on Percent Complete: page 8 – 75

Creating Event and Expenditure Item Draft Revenue

After Oracle Projects calculates potential revenue for expenditure items, it searches for agreements against which to accrue draft revenue, based on the project customer billing contributions and the amount of funding available. Oracle Projects first creates draft revenue for events, then for expenditure items.

See Also

Accounting Transactions for Revenue: page 15 – 17

Revenue Flow Detail Report: page 10 – 36

Potential Revenue Summary Report: page 10 – 34

Other Revenue Issues

Funding and Multiple Customers or Multiple Agreements

When you generate revenue, Oracle Projects determines which agreement an event or revenue item is accrued and billed against. Each time Oracle Projects finds available funding for an expenditure item or an event, it creates a revenue item and updates the funding amount billed on that agreement.

Expenditure Items and Events

Oracle Projects creates revenue by searching for agreements that fund the project against which to accrue potential revenue. When Oracle Projects finds an agreement with against which to accrue revenue, it updates the amount accrued on the appropriate funding record.

Whenever an agreement with acceptable funding is found, Oracle Projects creates a draft revenue against that agreement. The event revenue is split among the customers on the project according to their bill split percentage.

If Oracle Projects cannot find enough funding for the full potential revenue amount, it creates partial revenue for the expenditure items.

If multiple agreements fund the revenue generated for an expenditure item or event, Oracle Projects creates a revenue distribution line for each project (or task) and agreement funding the revenue. Therefore, a single expenditure item or event may have more than one revenue distribution line, which are billed on separate invoices.

Projects that use cost-to-cost revenue accrual can only be funded by one agreement.

Hard Limits and Partial Accrual

Hard Limits

You specify a hard limit for an agreement to limit revenue accrual and billing of a project funded by that agreement to the amount funded. You specify whether to use hard limits in the Agreement window. See: *Entering Agreements*: page 8 – 10.

Events

Oracle Projects accrues revenue for an event only if enough funding is available to accrue the full event amount.

Expenditure Items and Partial Accruals

Unlike events, for which revenue can be accrued only if funding exists for the full amount of the event, you can partially accrue expenditure items against agreements with hard limit funding. You can accrue expenditure item revenue up to hard revenue limits by partially accruing the potential revenue.

If Oracle Projects encounters expenditure items funded by an agreement with a hard revenue limit, and all of the potential revenue cannot be accrued on the agreement, the expenditure items for the current revenue generation run of the project are marked as partially accrued. These partially accrued items can be fully accrued by adding more funding before the next time you generate revenue.

Oracle Projects calculates the proration for partial accruals based on the following formula:

Figure 8 – 6

$$AR_{ITEM} = \frac{PR_{ITEM}}{PR_{RUN}} (AR_{RUN})$$

Where, for an item:

- AR_{ITEM} = Partial accrued revenue for an item
- PR_{ITEM} = Potential revenue for an item
- PR_{RUN} = Total potential revenue of all items processed in the current run
- AR_{RUN} = Total accrued revenue on the project or task for the current run based on available funding

For example, say Task 3.0 is funded with \$1,000 from an agreement with a hard limit, and expenditures charged to the task create potential revenue of \$6940, which is in excess of \$1,000. When revenue is generated for task 3.0, Oracle Projects reaches the revenue limit at \$1,000. Oracle Projects creates partially distributed revenue for the task and accrues a portion of each expenditure item’s potential revenue as we show below:

Task 3.0: Partial Revenue Accrual				
Employee Name	Labor Hours	Bill Rate	Potential Revenue *	Partially Distributed Revenue
Cheng	6 hours	180.00	1,080.00	155.62
Cheng	6 hours	180.00	1,080.00	155.62
Gray	6 hours	100.00	600.00	86.46
Gray	6 hours	100.00	600.00	86.46
Marlin	2 hours	145.00	290.00	41.79
Marlin	2 hours	145.00	290.00	41.79
Robinson	6 hours	250.00	1,500.00	216.13
Robinson	6 hours	250.00	1,500.00	216.13

Table 8 – 3 Partial Revenue Accrual (Page 1 of 2)

Task 3.0: Partial Revenue Accrual		
Total Revenue	6,940.00	1,000.00
* The amount of revenue that would have been generated with sufficient funding or no hard limit.		

Table 8 – 3 Partial Revenue Accrual (Page 2 of 2)

Generating Revenue

You can generate revenue for a single project, or for a range of projects using the PRC: Generate Draft Revenue process.

You can also delete the revenue of a single project using the PRC: Delete Draft Revenue of a Single Project process. See: Delete Draft Revenue of a Single Project: page 11 – 13.

When you generate revenue, Oracle Projects first selects projects, tasks, and their associated events and expenditure items that are eligible for revenue generation. Oracle Projects next calculates the potential revenue and then creates revenue events and expenditure items. See: Revenue Generation Process: page 8 – 29.

Oracle Projects also calculates the bill amounts of each expenditure item, based on the revenue distribution rule associated with a particular project.

When Oracle Projects creates revenue, it also searches for available funding for each revenue item. We discuss each of these topics in detail below after we tell you how to generate revenue.

► To generate revenue across a range of projects:

- Submit the PRC: Generate Draft Revenue for a Range of Projects process in the Submit Request window to run multiple revenue generation processes. See: Submitting Requests: page 10 – 2.



Suggestion: You should run Generate Draft Revenue on a specified processing cycle (for example, weekly) to calculate revenue for projects across the company. You can also run the process on demand by project to process adjustments.

Use the rescheduling parameters to configure the Generate Draft Revenue process to run automatically, according to a defined schedule.

► **To generate revenue for a single project:**

- Submit the PRC: Generate Draft Revenue for a Single Project process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Revenue Accrual and Invoicing

Generate Draft Revenue uses the overrides and schedules to process projects using As Work Occurs revenue accrual and / or invoicing. These projects are assigned one of the following distribution rules: WORK / WORK, WORK / EVENT, EVENT / WORK.

Burden Schedules

Generate Draft Revenue follows the burden schedule precedence for items charged to tasks that use a burden schedule; it does not use bill rate overrides for these items.

Burden Schedules and Labor Multipliers

You may decide to use labor multipliers instead of a labor burden schedule if you are using a one tier multiplier for labor items. With a one tier labor multiplier, the use of labor multipliers and burden schedule overrides for labor will result in same bill amounts but the method of processing will be different.

You can also use labor multipliers with a standard burden schedule for multiplier–tier revenue accrual and billing. This allows you to define one negotiated labor multiplier on top of the standard cost buildup provided by the standard burden schedule. The labor multiplier is treated as another burden multiplier. The calculation is:

$$\text{Bill Amount} = \text{Burdened Amount} \times (1 + \text{Labor Multiplier})$$

You can also report this labor multiplier as another burden cost component in the PA_INV_BURDEN_DETAILS_LM_V view. The labor multiplier component is not displayed in the PA_INV_BURDEN_DETAILS_V view. See: *Oracle Projects Technical Reference Manual*.

Bill Rate Schedules

Generate Draft Revenue follows the standard bill rate precedence for items charged to tasks that use a bill rate schedule. This precedence includes employee bill rate overrides, job bill rate overrides, non–labor bill rate overrides, job assignment overrides, and task schedules.

See Also

Billing: page 8 – 2

Revenue Flow Detail Report: page 10 – 36

Potential Revenue Summary Report: page 10 – 34

Potential Revenue Summary Report: page 10 – 34

Release and Interface Revenue

Oracle Projects releases revenue to make it eligible for interface to Oracle General Ledger. You cannot update or delete released revenue; Oracle Projects processes adjustments to released revenue by creating crediting revenue transactions.

When you generate revenue for a range of projects, it has a status of Released. Released revenue can interface to Oracle General Ledger when you run the Interface revenue process. When you generate revenue for a single project, it has a status Pending.

Releasing Revenue

Oracle Projects automatically releases revenue when you interface revenue to Oracle General Ledger in the Submit Request window. You can also release revenue manually using the Revenue Review window.

If you regenerate draft revenue for a single project, the process deletes any Pending draft revenue and replaces it with the new amount.

When you release an invoice which is based on revenue details (such as a T & M invoice), Oracle Projects automatically releases the associated revenue. You use the Invoice Summary window to release an invoice.

Interfacing Revenue

Oracle Projects fully integrates with Oracle General Ledger to update your general ledger accounts with your revenue transactions. You need to interface revenue with Oracle General Ledger using Oracle Projects processes. These processes interface and tieback revenue and maintain accounting balances.

See Also

Releasing Invoices: page 8 – 62

Submitting Requests: page 10 – 2

Integrating with Oracle General Ledger: page 13 – 10

Adjusting Revenue

Revenue is automatically adjusted when you adjust an invoice that bills the associated revenue. You can adjust draft revenue and draft invoices by adjusting expenditure items using the Expenditure Items window. For example, you can change the status of an expenditure item from billable to non-billable, or transfer an expenditure item to a different project from the one it is charged to.



Warning: You should make all revenue adjustments in Oracle Projects. You should not adjust project revenue in Oracle General Ledger, because the revenue amounts will not reconcile to the amounts in Oracle Projects.

You also can create revenue events to adjust the revenue amount associated with a project, independent of the expenditure items charged to the project. Revenue events have a classification of Write-On, Write-Off, Manual, or Automatic. You use the Events window to enter revenue events for projects or top tasks. The Events window is accessible from the Billing Information option.

See Also

Adjustments to Supplier Invoices: page 4 – 44

Adjusting Expenditure Items: page 4 – 53

Events: page 8 – 23

Entering Project and Task Options: page 2 – 62

Entering Tasks (WBS) for a Project: page 2 – 36

Reviewing Revenue

Revenue (US** Vision Services US: USD) - Time & Materials, 1**

Project Number	Time & Materials	Project Name	Time & Materials
Draft Number	1	Agreement Number	Time & Material # 1
Customer Name	Business World -1	Customer Number	1000
Revenue Amount	47,566.25	Accrue Through Date	02/23/1997
Credit of Number		PA Date	02/23/1997
Status	Released	Released Date	04/15/1997
☐ Revenue Exception		Interface Date	04/16/1997
☒ Warning			

Interface

Revenue Exception

GL Date	02/28/1997	Accounting Flexfield	
Unbilled Receivable	47,566.25		01-000-1232-000
Unearned Revenue	0.00		01-000-2550-000

Run Request...

Unrelease

Release

Lines

Use the Revenue Review windows to review detailed information about project revenue.

The information you can view in these windows includes:

- Amount
- Revenue category
- Event description
- Information about a revenue item's distribution lines
- Agreement providing the revenue funding
- Date the revenue was interfaced to Oracle General Ledger
- Distribution warnings encountered while generating draft revenue

You can use Revenue Review to delete or regenerate a project's unreleased revenue or to release and unrelease revenue. See: Revenue Flow: page 8 – 28.

Access to Revenue Review can be controlled by function security and project security. Function security can be used to control the release, unrelease, and run functions in Revenue Review. For more information, see: Function Security in Oracle Projects: page C – 2.

► **To review project revenue:**

1. Navigate to the Find Revenue window.
2. Enter your search criteria and then choose Find.

The Revenue Summary window opens.

For a description of the fields displayed in the Revenue Summary window, see Revenue Summary Window Reference: page 8 – 44.

If you select multiple lines, the Release and Unrelease buttons will display the number of items you selected (for example, Release 1, Release 2, etc.). See: Selecting Multiple Records, *Oracle Applications System Administrator's Guide*.

3. From the Revenue Summary window, choose:

- **Run Request** to regenerate revenue or delete revenue for a project. When you delete or regenerate draft revenue using this window, you submit the **PRC: Generate Draft Revenue** process or the **PRC: Delete Draft Revenue of a Single Project** process.

You can delete draft revenue or regenerate draft revenue only for revenue having a status of Unreleased or Generation Error.

If you regenerate draft revenue for a project that has unreleased draft revenue, Oracle Projects deletes the project's unreleased draft revenue before it creates new draft revenue.

See: Generate Draft Revenue: page 11 – 33.

- **Unrelease** to change revenue status from Released to Unreleased.

You can unrelease revenue only if you have not performed any of the following actions: released draft invoices for this draft revenue, subsequently generated draft revenue, and summarized draft revenue for the project.

- **Release** to release unreleased revenue.

You cannot release revenue if you encountered any errors while generating the draft revenue.

- **Totals** to view the total revenue amount for the draft revenue displayed based on your search criteria.
- **Lines** to view the revenue lines. See: Revenue Lines Window: page 8 – 46.
- **Open** to view all of the revenue information for a single draft revenue on one screen. See: Revenue Window: page 8 – 45.

Viewing Accounting Lines

You can see how a transaction will affect the account balances in your general ledger by viewing the detail accounting lines for the transaction as balanced accounting entries (debits equal credits) or T-accounts.

► To view accounting lines:

1. Query the revenue transaction you want to view.
2. Choose View Accounting from the Tools menu.

You see the View Revenue Accounting window.

The View Revenue Accounting window is a folder that you can customize to add or remove columns. See: Customizing the Presentation of Data in a Folder *Oracle Applications User's Guide*.

3. (Optional) To view the accounting detail for the selected line as T-accounts, choose T-Accounts. In the Options window that opens, select from the Default Window poplist, and then choose from the window buttons to drill down in General Ledger.

See: Viewing T-Accounts, *Oracle General Ledger User's Guide*

From the Payables Payment Accounting window in General Ledger, you can drill down even further to view detail transactions or the underlying transaction accounting. See: Drilling Down to Oracle Projects from Oracle General Ledger: page 4 – 50.

Revenue Summary Window Reference

Use this window to view information about the revenue that meets your search criteria. The Revenue Summary window uses folder technology, allowing you to customize the window to display the fields you want to view. The following information is available for display in this window:

Item	Description
Accrue Through	The accrue through date used to calculate the draft revenue
Agreement	The number of the agreement providing the revenue funding
Credited Number	The number of the draft revenue that was credited by this revenue (if this revenue credits another revenue number)
Customer Bill Split	The percentage of billing to the customer
Customer	Customer name
Customer Number	Customer number
Draft Revenue	The draft revenue number
Exception Reason	Revenue exception reason
Generation Error	Check box indicating if there was a revenue generation error
GL Date	The end date of the GL posting period
Interface Date	Date revenue was interfaced to GL
PA Date	End date of the PA period in which the revenue was generated
Project Name	The name of the project on which the revenue was earned
Project Number	The number of the project on which the revenue was earned
Released Date	Date released
Resource Accumulated	Check box indicating if accumulated to a resource
Revenue Amount	The revenue amount
Revenue Status	Revenue status
Unbilled Receivable DR	Amount of unbilled receivable for the revenue. The Revenue window also displays the corresponding account number.

Table 8 – 4 (Page 1 of 2)

Item	Description
Unearned Revenue CR	Amount of unearned revenue included in the revenue amount. The Revenue window also displays the corresponding account number.
Revenue Currency	The currency code for the revenue amount. (The revenue currency is the same as the project currency.)

Table 8 – 4 (Page 2 of 2)

Revenue Window

Use the Revenue window to view all of the revenue information for a single draft revenue in one window. In addition to the information in the Revenue Summary window, the Revenue window displays the following information:

- **Released Date.** If the draft revenue is released to interface to Oracle GL, the released date.
- **Warning.** Check box indicating if revenue generation encountered warnings. You can view warnings by selecting Revenue Exceptions in the Revenue window.

Revenue Window Selections

From the Revenue window, you can choose **Run Request**, **Unrelease**, or **Release**. These buttons are described under Revenue Summary Window Reference: page 8 – 44.

Select **Lines** to display the lines that comprise the selected revenue. See: Revenue Lines Window: page 8 – 46.

Revenue Processing Information

The Review window contains revenue processing information displayed in two tabbed regions. You can display the region you want by selecting from the tab control:

- Choose **Interface** to review the status of revenue after a successful interface to Oracle General Ledger.
 - **GL Date**

- **Unbilled Receivable amount.** Oracle Projects also displays the Unbilled Revenue account number to which the project's unbilled revenue is posted.
- **Unearned Revenue amount.** Oracle Projects also displays the Unearned Revenue account number to which the project's unearned revenue is posted.
- Choose **Revenue Exceptions** to view exception reasons and warnings encountered while generating draft revenue.

Following are some examples of exception reasons:

- Revenue was rejected in transfer to Oracle General Ledger
- Revenue was rejected by Journal Import
- A generation error was encountered during revenue generation

Some examples of warnings include:

- Revenue has reached the hard limit
- Revenue has reached or has accrued beyond the soft limit
- Items with missing labor (or non-labor) bill rates or markups were encountered
- Agreement has expired

Revenue Lines Window

The Revenue Lines window displays the task, revenue source, revenue category, and amount for the revenue lines that comprise a draft revenue item.

The Revenue Lines window displays the following information for each selected revenue line:

- Line Number
- Task Number
- Task Name
- Revenue Source
- Revenue Category
- Amount

Choose Details to view details of the selected revenue line in the Revenue Line Details window.

Revenue Line Details Window

Use the Revenue Line Details window to view revenue line details for a selected revenue line. The Revenue Line Details window uses folder technology, allowing you to customize the window to display the fields you want to view. The following information is available for display in this window:

- Account Description
- Accrual Rate
- Accrued Revenue
- Borrowed/Lent
- Employee Billing Title
- Employee Name and Number
- Employee/Supplier Name and Number
- Expenditure Batch, Comment, Organization, and Type
- Function Transaction
- GL Account
- Item Date
- Job Billing Title and Job Name
- Non-Labor Resource and Non-Labor Resource Organization
- Original Transaction Reference
- Quantity
- Raw Cost
- Revenue Amount
- Supplier Name
- Task Number and Name
- Transaction Source
- Unit

Invoicing a Project

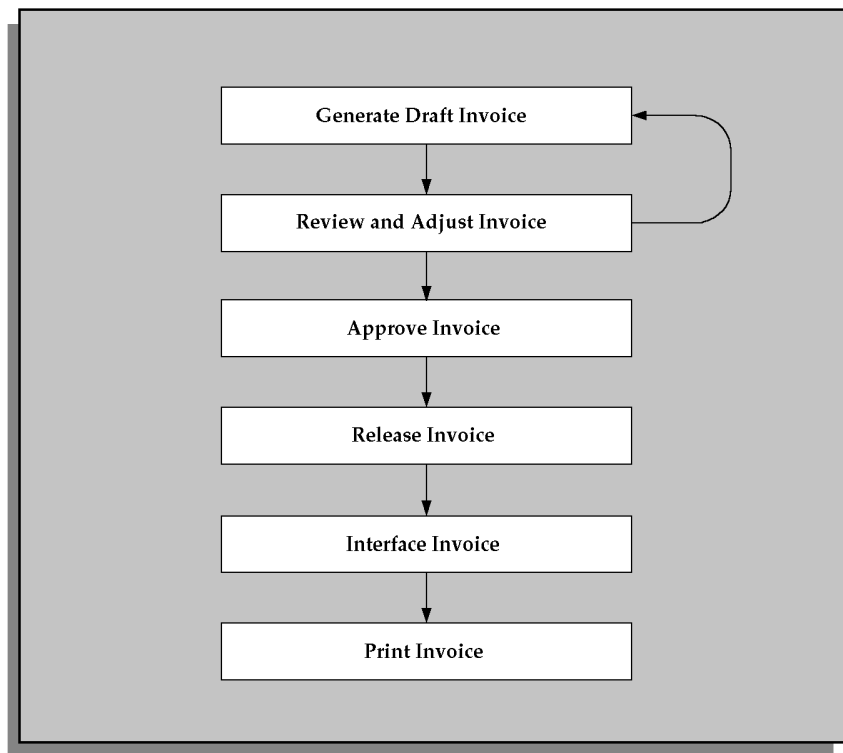
Oracle Projects provides you with rich functionality to help you meet your invoice processing needs. Using Oracle Projects features, you can manage and control your invoices, review and adjust them online, and review the detailed information that backs up your invoice amounts.

When you generate invoices, Oracle Projects calculates bill amounts, creates formatted invoices for printing and posting, and maintains funding balances.

Invoice Flow

The Oracle Projects invoice flow follows the steps detailed in Figure 8 – 7. In the pages that follow, we discuss each of these steps. We also tell you how to view invoices in Oracle Receivables, create invoice adjustments, and address other topics that help you to simplify your invoicing needs.

Figure 8 – 7



Steps To Take Before Generating Invoices

Oracle Projects provides controls as to which projects are ready for invoice generation.

You must complete the following steps before generating invoices for a direct project in Oracle Projects:

1. Enter an agreement and fund the project, using the Enter Agreements window. See: Entering Agreements: page 8 – 10.
2. If you want to generate revenue or invoices for the project based on percent complete, enter percent complete information either at the project or the funding level (project or top task). See: Revenue Accrual and Invoice Generation Based on Percent Complete: page 8 – 75.
3. If you want the project customer to be billed in a currency other than the project currency, enter currency attributes for the project customer. See: Setting Up Multi-Currency Billing: page 18 – 45.
4. Enter budgets. See: Entering a Draft: page 3 – 15.

If your project uses the cost-to-cost invoice generation method, you must include burdened costs in your cost budget and revenue amounts in your revenue budget. Without these amounts, Oracle Projects cannot successfully generate invoices for your project.
5. Baseline the project budget. See: Baselining a Draft: page 3 – 36.

You must fund the budget before you can baseline it.
6. For projects using as-work-occurs billing, generate revenue for expenditure items using the Generate Draft Revenue process. See: Generate Draft Revenue: page 11 – 33.
7. For projects using event billing, enter billing events using the Event option in the Project or Task window. See: Events: page 8 – 23.

If you do not want to generate an invoice for a specific top task on your project, uncheck the Ready to Bill check box in the Control Billing by Top Task window. Oracle Projects assumes you want to invoice all billable top tasks on contract projects.

See Also

Billing Cycles: page 17 – 130

Generating Invoices

You can generate an invoice for a single project, or for all projects having potential invoices by running the PRC: Generate Draft Invoice process. When you generate an invoice, Oracle Projects first select projects, tasks, and their associated events and expenditure items that are eligible for billing.

Oracle Projects next creates invoice items for billing events, revenue events, and for expenditure items. When Oracle Projects creates invoice items, it also searches for available funding for each invoice item.

Oracle Projects also calculates the bill amounts of each expenditure item, based on the revenue distribution rule associated with a particular project. See: *Accruing Revenue for a Project*: page 8 – 28.

When you generate invoices, you can specify a Bill Through Date, which is the date through which you want Oracle Projects to process all eligible expenditure items and events. Oracle Projects creates an invoice using expenditure items and events dated on or before the bill through date you specify.

Reports for Reviewing Invoices

You can use the Invoice Review report to review the draft invoices of a project before approving and releasing them for interface to Oracle Receivables. See: *Invoice Review Report*: page 10 – 29.

Use the invoice flow reports to identify where your draft invoices are in the invoice processing flow. See: *Invoice Flow Detail and Summary Reports*: page 10 – 33.

► To generate invoices across a range of projects:

- Submit the PRC: Generate Draft Invoices for a Range of Projects in the Submit Request window to run multiple invoice generation processes in parallel. See: *Submitting Requests*: page 10 – 2.



Suggestion: You should run Generate Draft Invoice on a specified processing cycle (for example, weekly) to generate invoices for projects whose billing cycles are due across the entire company. You can also run the process on demand to process off schedule invoices.

Use the rescheduling parameters to configure the Generate Draft Invoice process to run automatically, according to a defined schedule.

► **To generate invoices for a single project:**

- Submit the PRC: Generate Draft Invoices for a Single Project process from the Submit Request window or choose Run Request from the Invoice Summary window or Invoice window. See: Generate Draft Invoices: page 11 – 30.

Selection Criteria

Projects: Oracle Projects first determines if a project is eligible for invoice generation using the following criteria:

- Must have a status that allows invoice generation (for more information, see: Project Statuses: page 17 – 183)
- Must be a direct project
- Must have a baselined budget
- Must have expenditure items or events that are eligible for invoice generation or transaction-independent billing extensions that are assigned at the project type, project, or top task level

If you submit the process for **all projects**, it checks the eligibility of each project to bill according to its billing cycle. A project must meet the following billing cycle criteria before it can generate an invoice:

- Must not have any pending invoices (Unreleased)
- At least one bill cycle past the bill through date (or creation date if no bill through date exists) of the last non-crediting invoice
- At least first bill offset days past the project start date (or project creation date if no start date exists) if you have not yet invoiced a particular project
- If the billing date is calculated by a client extension, and the client extension returns a null value for the billing date, then the process will not pick up the project.

When submitted for a **single project**, the Generate Draft Invoices process ignores billing cycle. Also, if you have any unreleased draft invoices, they are deleted and a new draft invoice is created.

For projects that use *work* billing on their revenue distribution rule (such as T & M), you must generate draft revenue before you can generate an invoice.

Tasks: To be billed on an invoice, a project's top tasks must have a ready to bill status. This is done automatically when you create a project, but you may choose to change the top task bill status to Not

Ready to Bill in the Control Billing by Top Task window. A project's lowest tasks must be billable. You specify billability in the Task Details window.

Expenditure Items: To be included on an invoice, an expenditure item must meet the following criteria:

- Must be cost distributed
- Must have a billable status
- Must be partially or fully revenue distributed
- Must not be on billing hold
- Must not be already invoiced
- Project billing distribution rule must be T & M and not *Event*
- Expenditure item date is on or before the bill through date

Events: To be included on an invoice, an event must meet the following criteria:

- Must not be already invoiced
- Event completion date is on or before the bill through date
- Must be revenue distributed (for write-on revenue events only)

OR

- Event Type Classification is: Scheduled Payment, Deferred Revenue, Invoice Reduction, Manual, or Automatic (for billing events only)

An automatic event created by billing extensions after an adjustment must include the number of the original event. Without this information, Receivables cannot autoinvoice the automatic event. If Oracle Projects does not find this value during the invoice generation process, it will display the following message to the log file: "Cannot find a proper inv line credited for this adjusted event." See: Inserting Events: page 19 – 87.

Billing Extensions: For each project selected, Oracle Projects then selects expenditure items and events that are eligible for invoice generation based on the criteria that you define in your billing extensions. If you define transaction independent billing extensions, Oracle Projects executes these extensions for each project with an active billing assignment, even if there are no transactions to process. See also: Billing Extensions: page 19 – 67.

Agreements and Creating Invoices

Oracle Projects bills each customer based on their billing contribution and the available funding from the customer agreement. If a customer is on credit hold in Oracle Receivables, Oracle Projects creates an invoice with a generation error for that customer.

When you generate an invoice, Oracle Projects determines which customer agreement an event or invoice item should be billed against.

Each time Oracle Projects finds available funding for an expenditure item or an event, it creates an invoice item and updates the funding amount billed on that agreement.

Billing Events: Billing events are events for which there is no associated revenue. Because billing events have not accrued revenue against an agreement, they can be billed against any agreement having sufficient funding to cover the entire amount of the event.

When processing a Scheduled Payment event, Oracle Projects marks expenditure items as billed using the first-in, first-out (FIFO) method based on the expenditure item date. The FIFO marked items of an event may not total to the exact amount of the event; the total item amount is an estimation of the total work performed which backups the scheduled payment amount for internal reporting.

Write-On Events: Write-on events are events that have accrued revenue against an agreement, or have been previously billed and cancelled against an agreement. They must be billed to that same agreement. Revenue events typically have an event classification of Write-On.

Expenditure Items: Since expenditure items have already accrued revenue against an agreement, they must bill against that same agreement. Oracle Projects selects all of the eligible items, groups and summarizes them according to their project's invoice format, and bills them up to the limit of the available funding.

Invoice Set: For each given run of invoice generation for a project, if multiple customer agreements exist, Oracle Projects creates multiple invoices within a unique invoice set. You must approve, release, and cancel all invoices within an invoice set together by performing an action on a single invoice within the invoice set.

Components of an Invoice

Certain components of an invoice are determined when you generate a draft invoice. We discuss some of these components below. For more information concerning how project information affects invoices, and information about the components of a released invoice in Oracle Receivables, refer to the sections below.

Components of a Draft Invoice in Oracle Projects	
Bill Through Date	The date through which Oracle Projects picks up events and expenditure items to be billed on an invoice.
Customer Billing Address	The billing address you select for the customer in the Customers window or the Project Customers window.
Customer Shipping Address	The work site you select in the Customers window or the Project Customers window.
Draft Invoice Number	The Oracle Projects draft invoice number. This number indicates the sequential invoice number generated for a project.
Invoice Comment	The default value is the invoice comment entered for the project. You can also enter a comment for each invoice in the Invoice window.
Invoice Lines	Invoice lines are comprised of groupings of expenditure items (for T&M billing), or can be a single line item (for event billing).

Table 8 – 5 Invoice Components (Page 1 of 1)

In addition, there are other factors that impact invoice generation. You specify these factors when you enter a project. They provide default values or rules when you generate an invoice. The terms in the table below help you to understand how information is derived from your project setup to create an invoice.

Project Information That Affects Your Invoices	
Billing Cycle Code	The code that indicates when to generate invoices automatically a project; determined from the project. The bill cycle code is used only during mass invoice generation. See: Billing Cycles: page 17 – 130.
First Bill Offset Days	The number of days that elapse between the project start date and the date of the project's first invoice; determined from the project. Bill offset days are used only during mass invoice generation.
Invoice Formats	Uses the invoice formats defined for a project (T & M only). See Determining Your Invoice Printing Method: page 17 – 153
Distribution Rule	Determines how bills are generated for a project; determined from the project. (T & M and Events)
Billing Titles	The job and employee billing titles printed on an invoice using the effective billing titles.
Invoice Currency	The invoice currency selected for the project customer.

Table 8 – 6 (Page 1 of 1)

Certain components of an invoice are determined when you release a draft invoice, interface it to Oracle Receivables, and create an invoice from it in Oracle Receivables. We discuss some of these components below.

Components of a Released Invoice in Oracle Receivables	
GL Date	The GL Date is determined from the open or future period in which the invoice date falls, based on the period status in Oracle Receivables.
Invoice Date	The date that is printed on the invoice and the date on which an invoice receivable's aging begins. You specify the invoice date when you release the invoice.

Table 8 – 7 (Page 1 of 2)

Components of a Released Invoice in Oracle Receivables	
Invoice Number (AR)	The number of an invoice that is printed on an invoice, and the number that can be tracked in Oracle Receivables. This number can be system generated, or a number that you enter which uniquely identifies the invoice in Oracle Receivables, depending on how you implemented your invoice numbering system in Oracle Projects. The invoice number is determined when you release an invoice.
Invoice Transaction Type	If you set up invoice processing types during implementation, this is the name of the organization that is the invoice processing organization for the project owning organization. Otherwise, this is the default transaction type of <i>Projects Invoice</i> or <i>Projects Credit Memo</i> based on the <i>PROJECTS INVOICES</i> batch source. You can override the transaction type of an invoice using the transaction type billing extension. You can also use the AR transaction type extension to determine the AR transaction type when you interface invoices to Oracle Receivables. An invoice transaction type determines if it is an invoice or a credit memo.
Notes	The invoice comment determined from the project comment. You can override this default for each invoice before you interface the invoice to Oracle Receivables.
Payment Terms	The payment terms in Oracle Receivable are determined from the agreement that is used to fund an invoice.
Salesperson	If you define project managers as salespeople, then this is the project manager of the invoice's project. If you do not define project managers as salespeople, this value is blank. See: Defining Salespersons and Credit Types: page 18 – 62.
Ship to address	The ship to address specified for this customer on this project.

Table 8 – 7 (Page 2 of 2)

Other Invoicing Issues

Retention

You use invoice retention to reduce a project invoice by a percentage amount that you specify for a particular project. Invoice retention applies to both expenditure item invoices and event billings. Oracle Projects does not do any special accounting for invoice retention.

To bill an invoice retention amount, you first clear the Retention Invoice Format field in the Revenue and Billing Information window. Then you create a manual invoice event equal to the retained invoice amount, and then generate an invoice.

Hard Limits

You specify a hard limit for an agreement to limit revenue accrual and billing of a project funded by that agreement to the amount funded. You specify whether to use a hard limit for an agreement in the Agreements form. See: Entering Agreements: page 8 – 10.

When Oracle Projects encounters a hard limit when generating an invoice, it selects expenditure items until the hard limit is met, or until all additional items would cause the hard limit to be exceeded. However, the amount that Oracle Projects bills is the full bill amount for each expenditure item, not the partially accrued (partially distributed) revenue amount.

For example, say Task 3.0 is funded with \$1,000 from an agreement with a hard limit, and expenditures charged to the task create potential billable items in excess of \$1,000. When an invoice is generated for task 3.0, Oracle Projects reaches the hard limit at \$1,000. Oracle Projects bills as many expenditure items as it can up to the limit of \$1,000. Oracle Projects looks at the earliest expenditure items billed against Task 3.0 as its criteria of which items to select to bill first under the \$1,000 limit. According to this example, Oracle Projects bills \$940; additional eligible items exist, none with an amount of \$60 or less.

Employee Name	Quantity Billed	Bill Rate per Unit	Bill Amount	Amount Invoiced
Marlin	6 hours	60.00	360.00	360.00
Gray	1 hours	40.00	40.00	40.00

Table 8 – 8 Invoicing Hard Limits (Page 1 of 2)

Employee Name	Quantity Billed	Bill Rate per Unit	Bill Amount	Amount Invoiced
Marlin	9 hours	60.00	540.00	540.00
Total Amount of Invoice				940.00

Table 8 – 8 Invoicing Hard Limits (Page 2 of 2)

Reviewing Invoices

You should review each invoice before you approve and release it for billing. Use the Invoice Summary window or the Invoice Review report to review invoices.

You can review invoice information such as:

- invoice amount
- invoice lines
- currency attributes
- expenditure items that back up invoice items
- invoice customer

In addition to reviewing invoice information, you should also review an invoice to ensure that it did not encounter any generation errors or distribution warnings during generation and to monitor the status of your invoices. If you encounter a draft invoice with a generation error, you should correct the error and regenerate the invoice.

The system generates invoice line descriptions in the base language. The customer language (which is derived from the "Bill Site" associated with project customer) is also associated with the invoice. You can see this association in the Customer Language field in the folder for the Invoice Summary window.

You can enter the translated text in the customer billing language for each invoice line (use the Translated Text Field in the folder in the Invoice Lines window). You can enter the text any time before the invoice is interfaced to Oracle Receivables. When you print the invoice in Receivables, the translated text will print on the invoice. For more information, see: Multilingual Support in Oracle Projects: page 15 – 59.

You can use the Invoice Review report to review the draft invoices associated with a project. You can use this report to verify your draft invoices before approving and releasing them for interface to Oracle

Receivables. This report also shows detail items billed on an invoice.
See: Invoice Review Report: page 10 – 29.

Invoice Review Windows

The Invoice Summary, Invoice Lines, and Invoice Line Details windows are folder-type windows. In these windows, many of the fields, including the currency fields, are not displayed in the default folder. You may want to create folders that display the fields you need, for the types of entries you need to make. For information about folder forms see: *Administering Folders (Oracle Applications System Administrator's Guide)*.

► To review invoices:

1. Navigate to the Find Invoices window.
2. Enter selection criteria and choose Find to view invoices in the Invoice Summary window.

► To review detailed invoice information:

In the Invoice Summary window, select an invoice and choose the Open button to review detailed invoice information.

Invoice Window Regions

Following are the regions that you can select in the Invoice window to view invoice information:

- **Address:** This region shows:
 - Billing Address
 - Shipping Address
 - Contact Name
- **Comment:** This region shows the invoice comment.
- **Approved, Interface:** This region shows:
 - Approved Date
 - Released Date
 - Interface Date
 - GL Date
 - Approved By Name

- Released By Name
- Unbilled Receivable amount and currency code (functional currency)
- Unearned Revenue amount and currency code (functional currency)
- AP Status
- AP Interface Date
- **Receivable:** This region shows Oracle Receivables information, including:
 - AR Invoice Number
 - Invoice Date
 - Total Amount of Invoice Lines and currency code (invoice currency)
 - Tax Amount and currency code (invoice currency)
 - Original Balance, Applied Amount, Credited Amount, Written-Off Amount, and Remaining Balance (in the invoice currency)
- **Invoice Exception:** This region shows invoice warnings and exception reasons.
- **Agreement:** This region shows the agreement number, type, and terms.
- **Rounding:** This region shows the rounding amounts calculated by Oracle Projects to reconcile the functional currency amounts of invoices in Projects and Receivables.

The following information is displayed:

Conversion to Invoice Currency:

- **Invoice Amount:** The total invoice amount in the functional currency.
- **Conversion Rate:** The rate used by Oracle Projects to convert from the functional currency to the invoice currency.
- **Receivables Amount:** The amount interfaced to Receivables, in the invoice currency.

GL Posting and Invoice Rounding (in the functional currency):

- **Unbilled Receivables:** The UBR amount that Oracle Projects will post to GL.
- **Unearned Revenue:** The UER amount that Oracle Projects will post to GL
- **Functional Amount:** The sum of the Unbilled Receivables and the Unearned Revenue. This figure is equal to the functional currency invoice amount.
- **Rounding Amount:** The Invoice Rounding amount calculated in Oracle Projects and posted to the Invoice Rounding account to reconcile the functional currency amount that Oracle Receivables will post to GL.
- **Receivables Amount:** The functional currency amount that Oracle Receivables will post to GL. This number is the sum of the Functional Amount and the Rounding Amount.

For more information about Invoice Rounding, see: Invoice Rounding: page 17 – 141.

► To review invoice lines:

In the Invoice window, choose the Lines button to review the invoice lines created for your invoice.

► To review invoice line details:

From the Invoice Lines window, choose the Details button to review expenditure items that support the invoice line.

► To review draft revenue:

Choose either the Print button in the Invoice Summary window or the Print Draft button in the Invoice window to print a hard copy of the draft revenue.

Approving Invoices

After you review invoices and make any necessary adjustments, you need to approve them before you can release them for interfacing to Oracle Receivables. There are two ways to approve invoices:

1. Manual invoice approval

Usually your project administrator or project manager approves invoices. Oracle Projects records the invoice approval information of the person who approved the invoice and the date it was approved.

2. **Automatic invoice approval**

The Automatic Invoice Approve/Release Extension allows you to approve invoices automatically as part of the Generate Draft Invoice process. See: Automatic Invoice Approve/Release Extension: page 19 – 100.

► **To approve an invoice manually:**

1. Navigate to the Find Invoices window.
2. Find the invoice or invoices you want to approve.
3. In the Invoice window or Invoice Summary window, choose the Approve button.

In the Invoice Summary window you can approve multiple invoices at once. Highlight multiple invoices and then choose the Approve button. See: Selecting Multiple Records *Oracle Applications User's Guide*.

4. Save your work.

Releasing Invoices

After you approve invoices, you need to release them for interface to Oracle Receivables.

There are two ways to release invoices:

1. **Manual invoice release**

Usually your accounting department releases invoices. Oracle Projects records the invoice release information of the person who released the invoice and the date it was released.

Before you release an invoice, you determine if the invoice has tax information. See: Applying Tax to Project Invoices: page 18 – 67.

2. **Automatic invoice release**

The Automatic Invoice Approve/Release Extension allows you to release invoices automatically as part of the Generate Draft Invoice

process. See: Automatic Invoice Approve/Release Extension: page 19 – 100.



Attention: Once you release an invoice in Oracle Projects, you cannot change or delete it. You can adjust a released invoice; Oracle Projects processes adjustments to released invoices by creating crediting invoice transactions.

After you release an invoice, you need to interface the invoice with Oracle Receivables using Oracle Projects processes. These processes interface draft invoices, create invoices, and tie back invoices. See: Integrating with Oracle Receivables: page 13 – 60.

► **To release an invoice manually:**

1. Navigate to the Find Invoices window.
2. Find the invoice you want to release.
3. In the Invoice window or Invoice Summary window, choose the Release button.

You cannot release multiple invoices at one time. They must be released individually, because you must provide the invoice date and invoice number. (If you have elected to use automatic invoice numbering, you only need to enter the invoice date.)

4. Save your work.

Printing Invoices

You can print invoices either from Oracle Projects, or from Oracle Receivables, depending on how your company implements your invoice printing method.



Attention: If you print your invoices from Oracle Projects, you do not need to interface invoices before printing them.

► **To print an invoice from Oracle Projects:**

- Find the invoice you want to print in the Invoice Summary window and choose Print.
- You can also print from the Invoice window by selecting Print Draft.

Oracle Projects will print the MGT: Invoice Review report. See: Invoice Review: page 10 – 29.

See Also

Determining Your Invoice Printing Method: page 17 – 153

Changing Invoice Currency Attributes (Recalculating an Invoice)

You can change the invoice currency attributes of an invoice if:

- the invoice is unreleased, and
- the invoice is not a crediting invoice, and
- you are allowed to do so by function security (Invoice Recalculate)

The recalculate button is displayed in the Invoice window and the invoice Summary window only for eligible invoices.

► **To change invoice currency attributes:**

1. Navigate to the Invoice Summary window.
2. Select an invoice that is eligible for recalculation and choose Recalculate. A window is displayed showing the following fields:
 - Project Currency
 - Invoice Currency
 - Invoice Rate Type
 - Invoice Rate Date
 - Invoice Exchange Date
3. Make the necessary changes in the currency attributes, and choose OK.

The recalculation is done online (the action does not call the Generate Invoice process).

Adjusting Project Invoices

You can adjust anything on draft invoices before you approve and release them. You can perform many of the same actions on an invoice that you can on project expenditures. See: Expenditure Adjustments: page 4 – 26.

If you perform an adjustment on an invoice's expenditure items and events, you need to submit the appropriate process to reflect those adjustments. For example, if you change an expenditure item's status from billable to non-billable, you need to submit the appropriate processes to recalculate cost, regenerate revenue, and regenerate the invoice.

When you regenerate a project's unreleased draft revenue and unreleased draft invoices, Oracle Projects deletes the project's unreleased draft revenue and invoices and creates new draft revenue and invoices.

Cancel a released invoice

Cancelling an invoice causes the creation of a credit memo for the entire amount of the cancelled invoice. All items on the cancelled invoice are eligible for rebilling. In addition, Oracle Projects updates the funding balance on the agreement that funded the original invoice.

The credit memo always has the same invoice currency and currency attributes as the invoice being credited. You cannot perform a Recalculate function on a crediting memo.

You cannot cancel an invoice if payments have been applied against it in Oracle Receivables or if an invoice has credit memos applied against it. You can cancel an invoice only if it is released and has no payments, adjustments, or crediting invoices applied against it. Once the cancellation is completed, you cannot delete the credit memo created by the cancellation action. That is, you cannot reverse an invoice cancellation.

Write off an invoice

Writing off an invoice creates a crediting invoice against the original invoice for the write-off amount you request. When you write off an invoice, Oracle Projects reverses the invoice amount from the unbilled receivables account and places it into a write off expense account when you interface the write off to Oracle Receivables.

The write off creates a negative invoice in Oracle Projects that is attached to the original invoice. Oracle Projects records the appropriate write-off accounting transaction in Oracle Receivables when you interface the invoices to Oracle Receivables.

The crediting invoice always has the same invoice currency and currency attributes as the invoice being credited. You cannot perform a Recalculate function on a crediting invoice.

You can only write off an invoice whose status is Accepted. The write-off amount you enter can be any amount up to the outstanding receivable balance on the invoice.

See also: Rounding for an Invoice Write Off: page 17 – 145.

Create credit memos

Oracle Projects automatically creates a credit memo each time you adjust detail expenditure items billed on a released invoice. The credit memo reverses the amount on the invoice by the amount of the adjusting item.

To create a crediting invoice for a project that is not associated with a particular invoice, you should create an invoice reduction event for that project. When you generate the next invoice, Oracle Projects creates a negative invoice that is not attached to the original invoice. After you interface the negative invoice to Oracle Receivables, you can manually apply the negative invoice to any receipt from that customer in Oracle Receivables.

Do not create credit memos in Oracle Receivables for Oracle Projects invoices. Adjustments made in Oracle Receivables will not be reflected in Oracle Projects, and will cause your amounts to be out of balance with Oracle Projects.

Overapplied Credits: When Oracle Projects sends a credit memo that is greater than the original invoice amount outstanding in Oracle Receivables, Oracle Receivables overapplies the remaining credit memo balance to the original invoice, creating a negative outstanding amount on the invoice.

Tax information for credit memos: When Oracle Projects creates a credit memo associated with an existing invoice, the tax information for the crediting invoice is the same as the tax information for the original invoice in Oracle Projects.

Delete an invoice

You may determine it is not appropriate to create an invoice for the customer at this time. You can delete unreleased draft invoices.

► To adjust an invoice:

1. Navigate to the Invoice Review window.
2. Find the invoice you want to adjust.
3. Choose the Open, Lines, and Details buttons to open the Invoice Line Details window.

4. From the Tools menu, choose the adjustment you want to make.
5. Choose Run Request from the Invoice window to process the adjustment. See: Processing Adjustments: page 4 – 38.

► **To split an invoice or invoice line:**

- Choose Split from the Tools menu for the invoice or line you want to split. In the Split Invoice (Line) window, enter the Split Quantity you want to allocate to the first invoice or line, and choose OK to mark the invoice or line for a split adjustment.

Distribute costs, and generate draft invoice to process the adjustment. See: Processing Adjustments: page 4 – 38.

► **To transfer an invoice or invoice line:**

- Choose Transfer from the Tools menu for the invoice or line you want to transfer. In the Transfer Invoice (Line) window, enter the Project Number and Task Number to which you want to transfer the invoice or line, and choose OK to mark it for transfer.

Distribute costs, and generate draft invoice to process the adjustment. See: Processing Adjustments: page 4 – 38.

► **To cancel a released invoice:**

You cannot delete a cancellation (credit memo) once Oracle Projects performs the cancellation.

1. Choose the Credit button in either the Invoice Summary or Invoice window.
2. Choose Cancel Invoices.
3. When you choose OK, Oracle Projects submits a process to create a credit invoice.

► **To write off an invoice:**

You can write off an invoice only if it has a status of Accepted.

1. Choose the Credit button from either the Invoice Summary or Invoice window.
2. Enter the write off amount for the invoice.
3. Choose OK. Oracle Projects submits a process to write off the invoice.

► **To create an independent crediting invoice:**

1. Find the project for which you want to create the credit invoice in the Projects, Templates Summary window.
2. Open the project and select the Events option under Billing Information.
3. Enter an Invoice Reduction type event for the project or top task, as appropriate based on your invoice format.
4. Save. When the Generate Draft Invoices process is run for your project, a credit invoice will be created.

► **To delete an unreleased draft invoice:**

1. Find the invoice you want in the Invoice Summary window.
2. Choose Run Request.
3. Click on the Delete Invoices option button.
4. Choose OK.

Types of Invoice Adjustments

You can adjust invoices at the invoice line detail level in the Invoice Line Details window. You can perform most of the same types of adjustments on invoices as you can perform on expenditure items. See: Expenditure Adjustments: page 4 – 26.

Adjustments to Invoices		
Level	Adjustment Type	Steps to complete adjustment
Invoice	Change Billing Address	1. Add new address in Oracle Receivables 2. Change address in Oracle Projects by choosing the Customers and Contacts project option. 3. Regenerate invoice
	Change Billing Contact	1. Add new contact in Oracle Receivables 2. Change contact in Oracle Projects by choosing the Customers and Contacts project option. 3. Regenerate invoice

Level	Adjustment Type	Steps to complete adjustment
	Change Invoice Currency	1. In the Invoice or Invoice Summary window, choose Recalculate. 2. Make changes in the currency attributes. 3. Choose OK.
	Change Agreement Type or Terms	1. Change information in Agreements window 2. Regenerate invoice
	Change Comment	1. Correct comments in Invoice window 2. Save
	Bill Through Date incorrect	Regenerate invoice (and revenue if necessary) with correct Through Date
	Invoice Amount Incorrect	1. Analyze how revenue was created 2. Make changes as appropriate 3. Regenerate revenue and invoice
Invoice Lines	Wrong invoice line format	1. Change invoice lines format in Billing Information window, Project options 2. Regenerate invoice
	Wrong amount on invoice line	1. Analyze how amount was created 2. Make changes as appropriate 3. Regenerate revenue and invoice
	Retention amount incorrect	1. Change Retention Percentage in Billing Information window, Project options 2. Regenerate invoice
	Change tax code	Change the tax code in the Invoice Lines window. (You can do this only if you are allowed to based on the profile option Tax: Allow Override of Tax Code.)
	Change tax exemption	Change the tax code in the Invoice Lines window. (You can do this only if you are allowed to based on the profile option Tax: Allow Override of Customer Exemptions.)
Invoice Lines Details	Item should not be billed	1. Select Tools Menu 2. Choose Non-Billable option 3. In the Invoices window choose Run Request, Regenerate Revenue and Invoices
	Item should not be billed at this time	1. Select Tools Menu 2. Choose Billing Hold or One-Time Hold option 3. In the Invoices window choose Run Request, Regenerate Invoices

Table 8 – 9 (Page 2 of 3)

Level	Adjustment Type	Steps to complete adjustment
	Bill Amount is incorrect	1. Analyze how amount was created 2. Make changes as appropriate 3. From Tools Menu choose appropriate Recalc actions 4. Regenerate revenue and invoice
	Only part of the expenditure item can be invoiced	1. From the Tools Menu choose Split 2. After splitting the item, select Non-Billable for the part that cannot be invoiced 3. Recalc cost, revenue, and invoice
	Item does not belong on this project or task	1. From the Tools Menu, choose Transfer 2. After transferring the item, Recalc cost, revenue, and invoice

Table 8 – 9 (Page 3 of 3)

Viewing Invoices

You can view invoices in Oracle Projects or in Oracle Receivables. You can also drill down from the Invoice Summary window or the Invoice window in Oracle Projects to the AR Transaction Overview form in Receivables.

Viewing Invoices in Oracle Projects

You can view invoice information by project, or for an individual invoice. When you view invoice information for a project, you can view information such as the amount invoiced, the amount of unbilled receivables, and the amount of unearned revenue. You use the Funding Inquiry form to view project funding information.

In addition, you can view invoice information and outstanding receivables balances for each invoice for a project using the Project Status Inquiry and Funding Inquiry forms.

Unbilled Receivables Aging Report

You can use the Unbilled Receivables Aging report to review a project's unbilled receivables which includes eligible revenue items that have not yet been invoiced, or those items included in draft invoices that are not yet released. This report ages the unbilled receivables in four buckets,

and you specify in the report parameters the number of days that you want in each bucket.

► **To view invoices in Oracle Projects:**

1. Navigate to the Find Invoices window.
2. Find the invoice(s) you want to review by entering search criteria in the Find Invoices window. Choose Find.
3. View summary invoice information in the Invoice Summary window.
 - To drill down to the Receivables Transaction Overview form, select the invoice you want to review, and choose **AR Invoice**. (The **AR Invoice** button is only enabled if function security is implemented in such a way that the user is able to see the button.) From the Transaction Overview form in Receivables, you can access the following forms using the Tools menu:
 - Calls
 - Account Details
 - Activities
 - To view detail invoice information, select the invoice you want to review, and choose **Open** to open the Invoice window.
 - To view invoice lines for an invoice, choose **Invoice Lines** to open the Invoice Lines window. Choose **Detail** to view invoice line details.
 - To drill down to the Receivables Transaction Overview form from the Invoice window, choose **AR Invoice**. (The **AR Invoice** button is only enabled if function security is implemented in such a way that the user is able to see the button.)

See Also

Function Security: page C – 2

Viewing Invoices in Oracle Receivables

Each invoice and invoice line in Oracle Projects is translated into an invoice and invoice line in Oracle Receivables when you successfully interface and create an invoice in Oracle Receivables. You can view any invoice in Oracle Receivables that originates in Oracle Projects either from an Oracle Projects invoice inquiry window, or by using Oracle Receivables.

Oracle Projects does not interface invoice line detail (such as expenditure item details or event details) to Oracle Receivables. The following information appears for each line:

- UOM = Each
- Quantity = 1
- Unit Price = amount of invoice line
- Item = (Oracle Projects leaves this field blank)

Use the Invoice Number, Invoice Date, and /or Total Invoice Amount to query Oracle Projects invoice information in Oracle Receivables.

In addition, for any invoice, you can query on the following project information in the Invoice Transaction Flexfield that Oracle Projects passes to Oracle Receivables. You query this information by specifying values in the PROJECTS INVOICES context value descriptive flexfield for the Invoice Transaction Flexfield.

- Project Number
- Draft Invoice Number
- Agreement Number
- Project Organization
- Project Manager

When you process invoices in Oracle Receivables, you can also identify invoices in Oracle Receivables based on project information, using the value that you specify for the AR: Transaction Flexfield Quickpick Attribute profile value. You can set this profile to display any project information that Oracle Projects passes to Oracle Receivables in the Transaction Flexfield. The value you specify is displayed under the 'Reference' column in Lists of Values in the following Oracle Receivables forms:

- QuickCash
- Reapply Receipts

- Record A Call
- View Call History
- Reapply Credits
- Enter Receipts

See Also

Oracle Receivables User’s Guide

Conditions That Allow Specific Invoice Actions

In the Invoice Summary Window, the buttons and Tools Menu items that perform actions on an invoice are enabled or disabled, depending on the characteristics of the invoice that is selected. These characteristics are listed in the following table. This table clarifies when you can perform each action on an invoice.

Conditions Required for Invoice Actions To Take Place	
Approve Invoice	Invoice has no generation errors. Invoice has not been approved or released.
Adjust Invoice	Invoice has no generation errors. Invoice has not been released.
Release Invoice	Invoice has no generation errors. Invoice has been approved. Invoice has not been released.
Cancel an Invoice	Invoice has no generation errors. Invoice has been approved. Invoice has been released. Invoice has not been canceled. Invoice is not a credit memo. Invoice has not been written off. Invoice does not have a credit memo applied against it.

Table 8 – 10 (Page 1 of 2)

Conditions Required for Invoice Actions To Take Place	
Write Off an Invoice	Invoice has no generation errors. Invoice has been approved. Invoice has been released. Invoice has not been canceled. Invoice is not a credit memo. Invoice status is Accepted.
Print Invoice Review Report	No conditions apply. All selected draft invoices will be printed in the Invoice Review Report.

Table 8 – 10 (Page 2 of 2)

Accruing Revenue and Generating Invoices Based on Percent Complete

Oracle Projects can generate revenue and invoices based on the percent complete that you enter for a project. You can enter the percent complete for all the levels in the work breakdown structure (WBS). However, to generate revenue or invoices based on percent complete, you must enter percent complete at the funding level (project or top task).

Each percent complete entry you make has an As Of Date, so that Oracle Projects can maintain percent complete history. When you use percent complete as the basis for revenue accrual or generation of draft invoices, Oracle Projects uses the As Of Date to determine the current percent complete.

Revenue accrual based on physical percent complete is different from percent complete based on our budget ($\text{Actual Cost} / \text{Budgeted Cost}$). The method based on budgets, is also sometimes referred to as *Percent Spent* or *Cost-to-Cost Revenue Accrual*. See: *Cost-to-Cost (Percent Spent)*; page 8 – 33.

Revenue accrual based on physical percent complete is also different from revenue accrual on an as-work-occurs (or time and materials) basis, where the total potential revenue is the sum of the revenue of all expenditure items plus events. See: *As Work Occurs (Time and Materials)*; page 8 – 31.

Oracle Projects performs the physical percent complete revenue calculation using the following predefined billing extensions:

- Percent Complete Revenue
- Percent Complete Invoicing

The revenue and invoice processes call the appropriate billing extension to calculate the revenue or invoice amount and to create an event.

See Also

Setup Requirements for Percent Complete Revenue and Invoicing; page 17 – 167

Processing Percent Complete Revenue and Invoicing

To accrue revenue or generate draft invoices based on percent complete, you submit the PRC: Generate Draft Revenue or PRC: Generate Draft Invoices process. To submit the process for one project, submit PRC: Generate Draft Revenue for a Single Project or PRC: Generate Draft Invoice for a Single Project. You can also submit a project streamline request.

The revenue or invoice process performs the following steps:

1. The process calls the billing extension for each project or top task (depending on whether the project is funded at the project or top task level). The calling procedure specifies whether it is a revenue or invoice calling process and whether the call is made at the project or task level.
2. The billing extension determines the budget amounts, event amount, existing revenue amounts, funding balance, and percent complete.
3. If the percent complete cannot be determined, then the percent complete used by the process is zero, the revenue or draft invoice amount is zero, and no event is created.
4. The process calculates the accrued revenue or draft invoice amount, using the formulas shown in Figure 8 – 8 and Figure 8 – 9.
5. The billing extension creates an event. The description of the event includes the event type and the formula that was used to calculate the revenue or draft invoice amount.

Figure 8 – 8

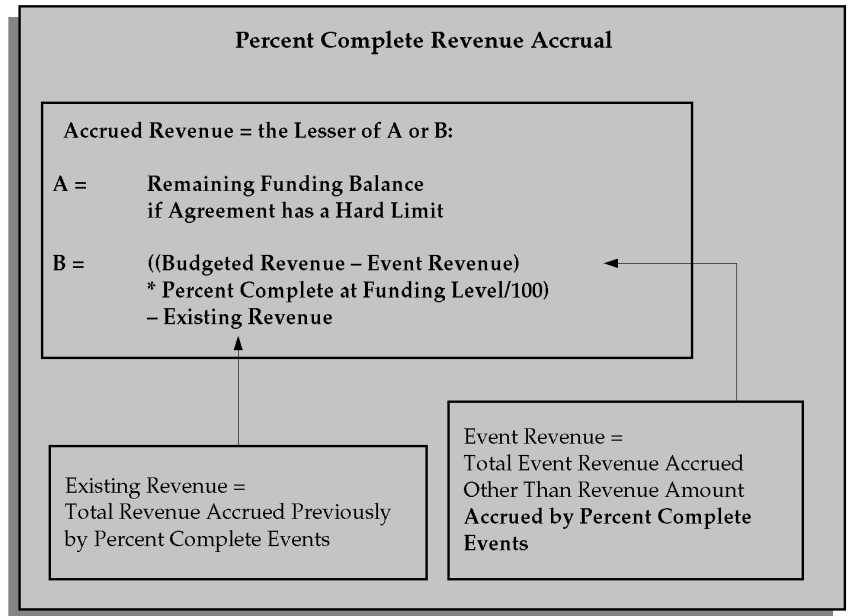
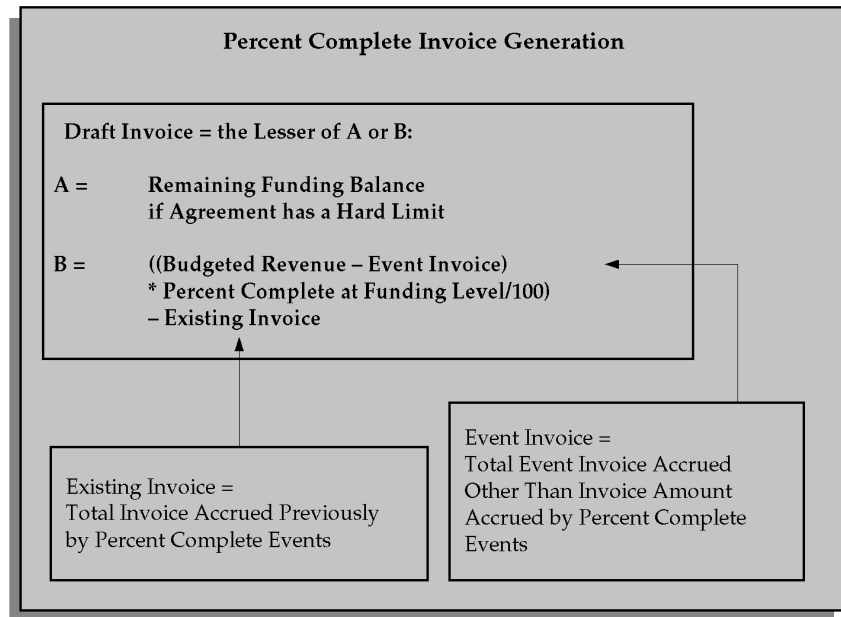


Figure 8 – 9



The event revenue or invoice is subtracted from budgeted revenue to obtain the net available budgeted revenue or invoice amounts. The process then effectively apportions the event revenue or invoice for the duration of the project.

Agreements with Hard Limits

If the agreement funding the project has a hard limit, the Remaining Funding Balance is the amount of funding left. This portion of the formula (part A) is required because revenue for an event cannot be partially accrued. If the amount calculated in part B of the formula is greater than the amount of funding, then the Remaining Funding Balance is taken as the accrued revenue or draft invoice. An event is still created in this case.

If the agreement has no hard limit, only part B of the formula is used.

See Also

Percent Complete: page 2 – 71

Events: page 8 – 23

Event Types: page 17 – 162

Billing Extensions: page 19 – 67

Automatic Events: page 19 – 69

Assigning Event Types: page 17 – 165

Entering Agreements: page 8 – 10

Generate Draft Invoices: page 11 – 30

Generate Draft Revenue: page 11 – 33

Revenue-Based Cost Accrual

Cost accruals are the accounting transactions to account for expenses in the same accounting period in which revenue is generated. Cost accruals are also referred to as *Cost of Goods Sold* or *Cost of Sales*.

According to the matching principle required by Generally Accepted Accounting Principles (GAAP), expenses (cost) incurred in earning revenue must be accrued in the same accounting period as the revenue. If you do not follow this matching principle, the financial statement and the reported profitability of the company are affected. If the current period expenses are accrued immediately, but related revenues are accrued in a future period, then the profitability of the company is reduced for the current period. To conform to the matching principle, you must defer expenses until revenue is accrued.

In Oracle Projects, cost distribution and revenue generation are two separate processes. Consequently, it is possible to account for expenses (costs) and revenue in different accounting periods. You must determine your accounting procedures and setup to ensure that you match expenses to revenue.

You must determine if your company uses cost accruals during revenue generation. The answer depends on the revenue accrual methods that your company uses. Some companies recognize revenue in the same period as costs. This type of accounting is typically done with work based or time and materials revenue accrual. For such companies, cost accruals are not needed. Other companies use a method that recognizes revenue in future periods after cost is accrued. For these companies, cost accruals are required.

With cost accruals, you initially account for the costs incurred as an asset in a cost work in process (WIP) account. You determine whether you account raw or burdened cost as the cost WIP. When you accrue revenue, the costs are recognized as expense by using cost accruals.

Cost Accrual Implementation Example

Oracle Projects provides an example implementation of cost accruals. The example includes billing extensions that create events to produce the appropriate accounting.

You can use the example with the provided extensions without modification. Your business requirements for cost accruals may be different from the requirements on which the example is based. If this is the case, you must implement your own cost accrual process and logic,

using the example provided by Oracle Projects as a model. See: Implementing Your Own Cost Accrual Procedures and Extensions: page 8 – 92.

The implementation example illustrates how to perform the following activities required for cost accrual:

- Calculate cost accrual amounts based on the accrued revenue amounts and budgeted cost and revenue amounts. The example uses a billing extension to create events that produce the appropriate accounting.
- Define the appropriate setup data to support cost accrual calculation and the corresponding accounting entries.
- Initiate project closing accounting entries using a project status with a system status of *Pending Close*.
- Implement rules to ensure that all accounting entries are complete before a project status can be changed from one with a system status of *Pending Close* to one with a system status of *Closed*.
- Create columns in the Project Status Inquiry window to view the cost WIP and cost accrual amounts.

Cost Accrual Accounting Entries

The implementation examples for cost accruals provided by Oracle Projects generates the following accounting entries for cost accruals:

Distribute costs (may be raw or burdened costs)

Dr.	Cost WIP Account (Asset)	<Cost Amount>	
	Cr.	Expense Clearing Account (Liability)	<Cost Amount>

Generate Revenue

Dr.	UBR/UER Account (Asset/Liability)	<Revenue Amount>	
	Cr.	Revenue Account (Revenue)	<Revenue Amount>

Dr.	Cost Accrual (Expense)	<Cost Accrual Amount>	
	Cr.	Cost Accrual Contra Account (Contra Asset)	<Cost Accrual Amount>

Project Closing Entries

Dr.	Cost Accrual Contra Account (Contra Asset)	<Cost Accrual Amount>	
Dr.	Cost Accrual Account (Expense) (Balancing entry; may be credit if cost accrual amount is greater than cost amount)	<Cost Amount> less <Cost Accrual Amount>	
	Cr.	Cost WIP Account (Asset)	<Cost Amount>

Cost Accrual Accounting

In cost accrual accounting, costs are accounted for in a cost WIP account as they are incurred and distributed during the life of the project. You determine if you account for cost WIP with the raw or burdened costs. Based on this decision, you define your AutoAccounting rules for the raw cost or burdened cost accounting.

As revenue is accrued, the cost accrual amount is calculated and the expense account is debited via a Cost Accrual entry. A Cost Accrual Contra account is credited. A Cost Accrual Contra account is used instead of a Cost WIP account to allow you to easily view and reconcile the Cost WIP and Cost Accrual Contra accounts during the life of the project.

When the project is pending close, you must perform appropriate project closing entries. At this time you must ensure that the Cost Accrual (expense) amount equals the Cost WIP amount. You must fully credit the Cost WIP account and debit the Cost Accrual Contra account. When this is done, you have moved all cost WIP amounts to the Cost Accrual (expense) account. The balancing entry that accounts for the difference of the cost accrual amount and the cost amount is an entry to the Cost Accrual account.

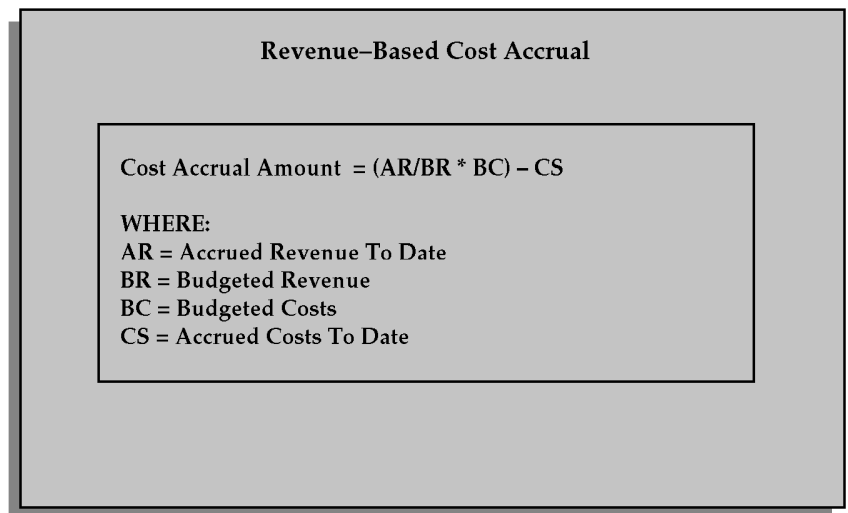
If the project status is changed from a closed status to an active status after closing entries, the closing entries are automatically reversed the next time the Generate Draft Revenue process is run for the project. See: Close the Project: page 8 – 92.

Cost Accrual Calculation using Billing Extensions

Oracle Projects provides an example billing extension in which the cost accrual amounts are calculated. This example is called the *Cost Accrual Billing Extension*.

Figure 8 – 10 shows the calculation used in the example billing extension.

Figure 8 – 10



You must decide some of the inputs to this extension:

- **Budget Amounts.** You specify which cost and revenue budget types to use in the calculation on the billing extension definition. If you do not specify values, the budget types *Approved Cost Budget* and *Approved Revenue Budget* are used. The last baselined budget version of the specified budget types are used. See: Billing Extensions: page 19 – 67.
- **Cost Amounts for WIP.** You determine whether to base your cost accrual on the budgeted raw cost or the budgeted burdened costs. You specify this on the definition of the billing extension. This also defines what cost amounts are accounted for as cost WIP.

You must setup your AutoAccounting rules to account for the appropriate cost amounts as cost WIP.

- **Event Types to use for Events.** You specify which event types to use when creating the events which result in the Cost Accrual, Cost Accrual Contra, and reversing Cost WIP entries.

Designing a Cost Accrual Billing Extension

Following are some facts to consider when you are using the example cost accrual billing extension.

- In the calculation in Figure 8 – 10, there is no relationship between the costs entered in the system and the cost accrual amounts generated by the Cost Accrual Billing Extension during the life of the project. The cost accrual amounts are calculated based on the actual accrued revenue, the budgeted cost amounts, and the budgeted revenue amounts.
- If the result of the formula in Figure 8 – 10 is zero or less than zero, no event is created. Cost accruals cannot be negative.
- If the budgeted costs are greater than the budgeted revenue amounts (the project is incurring a loss), then the accumulated cost accrual will be greater than the accumulated accrued revenue.
- Events are created at the funding level (project or top task).
- The billing extension example creates events that use only one account for each of the corresponding buckets: Cost Accrual, Cost Accrual Contra, and Cost WIP (for the reversing entries at project closing).

Implementing the Cost Accrual Example

In this section, we describe the setup steps required to support the Cost Accrual Billing Extension example. We also show some examples of a cost accrual setup.

1. Define Event Types

Define event types with the classification *Automatic*. You need an event type for events that will account for each of the following accounts:

- Cost Accrual

- Cost Accrual Contra
- Cost WIP (for reversing entries during project closing)

You will drive AutoAccounting rules based on these event types.

Event Type	Description	Class
Cost Accrual	Cost Accrual Account	Automatic
Cost Accrual Contra	Cost Accrual Contra Account	Automatic
Cost WIP	Cost WIP Account (for reversing entries)	Automatic

Table 8 – 11 Example Cost Accrual Event Types (Page 1 of 1)

2. Define the cost accrual billing extension.

► To define the cost accrual billing extension:

a) Value Sets and Descriptive Flexfields for Billing Extension

Set up the value sets and descriptive flexfield used in the billing extension definition. The Cost Accrual Billing Extension example requires following five descriptive flexfield segments to be set up on the Billing Extension:

- **Cost Accrual Identifier.** This value is used by the project verification rules and project status columns extensions to identify events created from the cost accrual billing extension. You must define the cost accrual identifier with a value of *COST-ACCRUAL* in the ATTRIBUTE11 column. You can define a value set with just one value that is uppercase. The minimum and maximum value is *COST-ACCRUAL*, with a maximum size of 12.
- **Cost Accrual Event Type** in the ATTRIBUTE12 column.
- **Cost Accrual Contra Event Type** in the ATTRIBUTE13 column.
- **Cost WIP Event Type** in the ATTRIBUTE14 column.
- **Cost Basis** in the ATTRIBUTE15 column. The cost basis specifies whether to use raw or burdened costs as the Cost WIP and raw or burdened budgeted costs in the cost accrual calculation. The two possible values are *R* and *B*. You can define a value set with just two values that are uppercase. The minimum value is *B* and the maximum value is *R*. The maximum size is 1.

The three segments that hold event types should use a table-validated value set with a length of 30 characters which displays all automatic event types using the following SQL:

```
select event_type
from pa_event_types
where event_type_classification = 'AUTOMATIC'
```

After you have defined and used the billing extension, you must not change the values of the descriptive flexfield.

b) Define the Billing Extension

You define the billing extension with the following key attributes:

- Procedure: pa_rev_ca.calc_ca_amt. This is the example procedure provided by Oracle Projects. Use your own procedure name, as appropriate.
- Calling Place: Post Regular Processing
- Calling Process: Revenue
- Transaction Independent: Yes

Cost Accrual Billing Extension

<i>Name</i>	Cost Accrual
<i>Procedure</i>	pa_rev_ca.calc_ca_amt
<i>Description</i>	Calculate cost accrual amount
<i>Order</i>	10
<i>Calling Process</i>	Revenue
<i>Default Event Type</i>	Cost Accrual
<i>Event Description</i>	Cost Accrual Based on Revenue
<i>Default Cost Budget</i>	Approved Cost Budget
<i>Default Revenue Budget</i>	Approved Revenue Budget
<i>Calling Place</i>	Post-Regular Processing
<i>Required Inputs</i>	None
<i>Other Parameters</i>	Transaction Independent: enabled Project Specific: not enabled
<u>Descriptive Flexfield:</u>	
<i>Cost Accrual Identifier</i>	COST-ACCRUAL
<i>Cost Basis</i>	R

<i>Cost Accrual Event Type</i>	Cost Accrual
<i>Cost Accrual Contra Event Type</i>	Cost Accrual Contra
<i>Cost WIP Event Type</i>	Cost WIP

c) Install the Billing Extension Package

You must install the billing extension PL/SQL package. The package that Oracle Projects provides is in the Oracle Projects admin/sql directory. The file names are PAXICOSS.pls and PAXICOSB.pls.

See: Implementing Your Own Cost Accrual Procedures and Extensions: page 8 – 92.

3. Assign Billing Extension to Project Types

Assign the billing extension to the appropriate project types.

You can also choose to implement a billing extension that you assign to specific projects. To do this, you enable the Project Specific check box in the Billing Extension window. However, for the cost accrual example, you are expected to assign the billing extension at the project type level.

See: Defining Billing Extensions: page 19 – 96 and Project Types: page 17 – 196.

4. Define AutoAccounting

Define AutoAccounting setup for cost WIP and cost accruals. Typically, you define GL accounts for each of the different buckets, as shown in the example below:

<i>Cost WIP</i>	1280
<i>Cost Accrual</i>	1285
<i>Cost Accrual Contra</i>	1286

► To define AutoAccounting for Cost WIP and Cost Accruals:

a) Cost WIP account for incurring costs (via expenditure items)

To account for actual raw costs in cost WIP, you must perform the following steps:

- Define an AutoAccounting rule for Cost WIP.

- Assign the Cost WIP rule and other appropriate rules to the Function Transaction of Contract for the following AutoAccounting functions:
 - Labor Cost Account
 - Expense Report Cost Account
 - Usage Cost Account
 - Burden Cost Account
 - Inventory Cost Account
 - Miscellaneous Cost Account
 - WIP Cost Account (work in process from Manufacturing)
 - Supplier Invoice Cost Account

If you use burdened cost as cost WIP, then you must define the AutoAccounting rules for the Total Burdened Cost Debit and Credit functions and run the Distribute and Interface Total Burdened Cost processes before you generate revenue.

For more information about burdened costs, see: *Burdening (Cost Plus Processing)*: page 5 – 16 and *Accounting for Total Burdened Costs*: page 5 – 41.

b) Cost Accrual accounts for events resulting from the billing extension

Assign the AutoAccounting rules to the Event Revenue function under the Write-On function transaction (under which Automatic events are accounted). To account for different event types under one function transaction, you must define a rule based on the event types. The rule may be a parameter-based rule that uses a lookup set, or it can be a SQL statement AutoAccounting rule that uses the SQL statement to map the event type to the account value.

The AutoAccounting rules for the Cost WIP reversing entries created via an event should result in the same accounts as the AutoAccounting rules used to derive the Cost WIP account for costs incurred via expenditure items.

5. Implement Project Verification Rules

Implement project verification rules to ensure that project closing entries are made before the project status is changed to *Closed*. The rules should ensure that the closing entries are made when the project has a project status with a system status of *Pending Close*.

Oracle Projects provides an example of how to enforce this requirement in the project verification extension. To implement the requirement, you remove the comments around the section for cost accruals in the project verification extension.

See: Project Verification Extension: page 19 – 110.

6. Implement Cost Accrual Columns in Project Status Inquiry

Implement columns to view Cost WIP and Cost Accrual amounts in the Project Status Inquiry window.

The PSI client extension includes an example of how to implement the following columns in columns 28 through 33 in the Project Status Inquiry window:

- ITD – Cost WIP
- PTD – Cost WIP
- ITD – Cost Accrual
- PTD – Cost Accrual
- ITD – Margin
- PTD – Margin

To implement these columns, you perform the following steps:

1. Remove the comments around the section for cost accruals in the project status inquiry column extensions. See: PSI Extension: page 17 – 222.
2. Define the Project Status Inquiry columns listed above, and regenerate the view in the Project Status Inquiry Columns window. See: Project Status Inquiry Setup: page 17 – 213.

When a project is closed, these columns are updated. At that point, the amounts for the PTD (period to date) columns are a combination of PTD activity and closing activities.

7. Implement the Cost Accrual Identification Extension in Intercompany Billing

The Cost Accrual Identification extension includes sample code that calls the cost accrual identification procedure in the sample Cost Accrual Billing extension. If you are using the predefined Cost Accrual Billing extension, enable the sample code in the Cost Accrual Identification extension by removing the comment marks. The default logic in this

extension returns a value of *No* for cost accrual projects. See: Cost Accrual Identification Extension: page 19 – 165.

Case Study: Using Cost Accrual for a Project

A Project is created with the following values:

<i>Project Number</i>	CA–Project01
<i>Project Name</i>	CA–Project for Documentation
<i>Distribution Rule</i>	WORK / WORK
<i>Employee Bill Rate Override</i>	Amy Marlin 1,000 hourly

One additional task, Task 2, is added.

Budget and Fund the Project

The following uncategorized, non–time–phased budgets are created:

<u>Cost Budget:</u>	
<i>Budget Type</i>	Approved Cost Budget
<i>Quantity</i>	1000
<i>Raw Cost</i>	250,000
<u>Revenue Budget:</u>	
<i>Budget Type</i>	Approved Revenue Budget
<i>Revenue</i>	1,000,000

Project CA–Project01 is funded in agreement CA–01 with a soft limit purchase order from the customer for \$1,000,000 US. The budget and funding are baselined.

Enter Timecard

The following pre–approved timecard batch is entered, submitted, and released:

Batch: CA–01–tc

Ending Date: 13-APR-1997

Employee: Marlin, Amy

Expenditure Item Date	Project Number	Task Number	Expenditure Type	Quantity	Raw Cost
12-APR-1977	CA-Project01	1	Professional	50	3000
13-APR-1997	CA-Project01	2	Professional	50	3000
				100	6000

Table 8 – 12 (Page 1 of 1)

The PRC: Distribute Labor Costs process is run. The cost rate for Amy Marlin is \$60.00 per hour.

The following accounting entries are created for these costs

Dr.	Cost WIP	6,000.00	
	Cr.	Payroll Clearing	6,000.00

Generate Revenue and Cost Accrual

Because this project uses the WORK / WORK revenue distribution rule, the draft revenue is calculated as follows:

$$(100 \text{ hours} * \$1,000 \text{ per hour}) - 0 = \$100,000$$

The cost accrual is calculated as follows (using the algorithm in Figure 8 – 10):

$$(100,000 / 1,000,000 * 250,000) - 0 = 25,000$$

The cost accrual events are created and accounted as follows:

Dr.	Cost Accrual	25,000.00	
	Cr.	Cost Accrual Contra	25,000.00

Revenue accounting entries are created as follows:

Dr.	Unbilled Revenue	100,000.00	
	Cr.	Revenue	100,000.00

The draft revenue is released and interfaced to GL.

Close the Project

Using the Project Closing procedure, the project status is set to *Pending Close*. This status change initiates the closing cost accrual entries. The Generate Draft Revenue process is run and three events are automatically created and accounted for as follows:

Dr.	Cost Accrual Contra	25,000.00	
	Cr. Cost WIP		6,000.00
	Cr. Cost Accrual (Balance so that Cost Accrual = Cost WIP at end of project)		19,000.00

The draft revenue is released and interfaced to GL.

The project status can now be changed to *Closed*. If the project is reopened (if its status is changed to an active status with a system status other than *Pending Close* or *Closed*), these three events are reversed the next time the Generate Draft Revenue process is run for the project.

Implementing Your Own Cost Accrual Procedures and Extensions

Your business requirements for cost accruals may be different from those addressed in the cost accrual example that Oracle Projects provides. If this is the case, you must design and create your own billing extension and appropriate setup data to match your requirements.

Listed below are some of the business requirements for cost accruals that may vary in your company from the cost accrual example provided by Oracle Projects:

- **The cost accrual calculation.** For example, you may calculate cost accruals to be equal the cost WIP, instead of calculating cost accruals based on the budgets as in the cost accrual example.
- **The number of accounts to which you charge cost WIP or cost accruals.** The cost accrual example uses one account for each bucket: Cost Accrual, Cost Accrual Contra, and Cost WIP. If you charge your cost WIP to many accounts, you will need to create your own cost accrual billing extension to account for the many cost WIP accounts that you use.

- **What is considered cost WIP.** The cost accrual example includes all costs in cost WIP. If you need to exclude certain costs from the cost WIP calculation, you need to change your cost accrual implementation.

Cost Accrual Extension

Oracle Projects provides a template package and procedure that you use as the basis of your cost accrual extension procedures. The name of the package is **pa_rev_ca**.

Print out and review the following files before you begin writing cost accrual billing extensions. The files are located in the Oracle Projects admin/sql directory.

PAXICOSB.pls.	Package Body Template. This file contains the procedure that you modify to implement cost accrual billing extensions. You can define as many procedures as you like within this package or within the predefined procedure.
PAXICOSS.pls	Package Specification Template. If you create procedures within the package outside the predefined procedure, you must also modify this file.



Suggestion: After you write the procedure, do not forget to compile it and store it in the database. See: Storing Your Procedures: page 19 – 9.

You can base your cost accrual billing extension on the one provided by Oracle Projects. You must not change the example billing extension definition or the logic. You can copy the definition and the PL/SQL package to use as a starting point for your own billing extension. You are responsible for the support and upgrade of your cost accrual implementation, including the billing extension procedure and logic.

See Also

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Client Extensions: page 19 – 5

Project Status Inquiry

This chapter describes the project summary amounts that Oracle Projects maintains for project status tracking. In addition, it describes how you can use Project Status Inquiry (PSI) to review summary amounts and calculations by project, task, and resource. For example, you can review project summary amounts, or budget amounts by budget type. You can also drill down to commitments, actuals, and events detail for tasks and resources.

Project Status Inquiry Overview

Project Status (**US** Vision Services US: USD)

Current Period: JUL-W1-97

Project	Project Name	Ovr Bgt	PTD Revenue	ITD Revenue	PTD Cost	ITD Cost
Time & Materials	Time & Materi:		506,250.00	108,187.00	367,500.00	123,7

Task Status (**US** Vision Services US: USD) - Time & Materials

All Project Status Inquiry (PSI) Information

Task	Task Name	Ovr Bgt	ITD - Act Cost	Commit Amt	Tot Cst - ITD	PTD - Act Cost	Est
+ 1.0	Planning	*	80186	100	80286	2041	
2.0	Operations Analy		12391	0	12391	927	
3.0	Solution Design		24098	0	24098	0	
4.0	Build		2812	0	2812	0	
5.0	Documentation		1749	0	1749	0	
6.0	Transition		2551	0	2551	0	
7.0	Production		0	0	0	0	

Events Commitments Actuals Task Resource Status

With Project Status Inquiry (PSI), you can review the current status of your projects and then drill down for more detailed review of a project and its tasks. Oracle Projects provides you with several features that allow you to control your search for project status information. For example, you can do the following:

- Limit your search for projects by entering search criteria
- Control the type of information that Oracle Projects displays by using custom folder definitions
- View summary information by project, task, and resource
- View summary information totals based on your search criteria
- Drill down from lowest tasks and resources to commitments and expenditure item details

- Drill down from projects, top tasks and lowest resources to events for contract projects

For transactions that involve foreign currencies, all amounts displayed in Project Status Inquiry are shown in the project currency.

See Also

Project Status Inquiry Setup: page 17 – 213

Project Summary Amounts: page 9 – 11

Reviewing Project, Task, and Resource Summary Amounts

You can review project summary amounts to quickly determine the status of your projects. After you review project summary amounts, you can drill down to see the summary amounts for the tasks of a project.

You also can drill down to see the summary amounts for the resources of the project or the selected task. You select the resource list by which you want to view actuals and budgets. By default, you drill down using the drilldown default resource list defined for the project. You can choose to drilldown by other resource lists assigned to the project.

In addition, you can export PSI data into a spreadsheet for further analysis. Choose Action, Export from any of the Project Status windows (Project, Task, or Resource) to export the data into a spreadsheet file. See: Export *Oracle Applications User's Guide*.

You can customize this folder form to show the Project Status information that you need. See: Customizing the Presentation of Data in a Folder *Oracle Applications User's Guide*.

Prerequisite

- ☐ Run the Update Project Summary Amounts process for your projects. The Project Status window uses the data that is summarized by this process. If you do not run this process, you will not be able to see any numbers in the Project Status window. See: Updating Project Summary Amounts: page 9 – 17.

► **To review project summary amounts:**

1. Navigate to the Project Status window.
2. Enter the search criteria to find the project(s) you want to review.
3. Choose the Find button.
4. To view totals for the project rows returned based on your search criteria, choose Totals.

Oracle Projects displays only the projects with a current budget that is summarized or with summarized actuals and commitments.

This window displays the Current Period as the current reporting period by which Oracle Projects calculates the values for projects. Amounts for all summarization brackets (period-to-date, prior period, year-to-date, and inception-to-date) are calculated as of the current reporting period. See: Maintaining To-Date Amounts: page 9 – 15.

► **To review task summary amounts:**

1. From the Project Status window, select the project you want and then choose the Task Status button to review top tasks and their summarized amounts. Choose the Task button to review details for a selected task.
2. To drill down to review subtasks, select a top task, and then double-click on the selected task number to review the subtasks that are one level below the top task. Continue this for subsequent task levels.

► **To review resource summary amounts:**

- To review **project** resources, select a project in the Project Status window and choose the Resource Status button.
- To review **task** resources, select a task in the Task Status window, and then choose either the drilldown indicator or the Resource Status button.

Oracle Projects displays the resource groups and resources in the resource list that are budgeted or have summarized actuals or commitments.

- To review resources below a resource group, select a resource group, and then double-click on the resource name.

- **To view actuals and commitments using a different resource list:**
 - Choose a different resource list that is assigned to the project from the Resource Drilldown List menu item on the Tools Menu.

Summarization Error Messages

The Summarization Exception column in the Project Status window displays messages describing errors that occurred during the summarization process.

Examples of these errors are:

- currency conversion errors were encountered while summarizing commitments
- the summarization period type has changed
- the project's tasks have been restructured by an AMG API
- the current reporting period has been rolled back to a date earlier than the last period accumulated for the project
- the project is closed

See Also

Project Summary Amounts: page 9 – 11

Resources and Resource Lists: page 17 – 174

Resource List Assignments: page 2 – 48

Summarizing Actuals and Commitments by Resource: page 9 – 20

Using Factoring to Control Currency Display

Factoring enables you to control the multiples factor used to display the amounts.

You can use the factoring feature in PSI to make very large amounts easier to read. Factoring can be used for all PSI columns marked as enabled for factoring in the Project Status Column Setup window.

► **To change the factor in a PSI window:**

1. Navigate to the PSI Project, Task, or Resources window.
2. From the Tools menu, choose Factor By.
3. From the Factor By list of values, select a factor. For example :
 - **Units.** Displays amounts as calculated.
 - **Tens.** Displays amounts as multiples of ten (10 = 1.00).
 - **Ten Thousands.** Displays amounts as multiples of ten thousand (10,000 = 1.00).
 - **Millions.** Displays amounts as multiples of one million (1,000,000 = 1.00).

This factor applies to all status folders during your current session, and is active until you exit Project Status Inquiry. The factor is not saved in the PSI folders.

► **To change the factor of a PSI column defined by the PSI client extension:**

- A function named PA_STATUS.Get_Factor can be called by the PSI client extension to enable factoring for amounts calculated by the PSI client extension. See: PSI Extension: page 17 – 222.

Comparing Budget to Actual and Commitment Amounts

You can review current and original budgeted amounts and compare them to actuals and commitment amounts.

You review the budgeted amounts for one cost budget type and one revenue budget type at a time.

The default cost budget type is the predefined Approved Cost Budget. The default revenue budget type is the predefined Approved Revenue Budget.

Prerequisite

- ☐ Enter and baseline a budget for the project. See: Entering a Draft: page 3 – 15 and Baselining a Draft: page 3 – 36.
- ☐ Run the Update Project Summary Amounts process for your projects. See: Updating Project Summary Amounts: page 9 – 17.

► **To review a different cost or revenue budget type:**

- Choose Cost or Revenue Budget Type from the Tools Menu.

You can choose a different cost or revenue budget type from all budget types from the Project Status window, regardless of active dates of the budget types. If you choose a budget type from the Task Status window, you can only select from the budget types assigned to the project.

See Also

Overview of Project Budgets: page 3 – 2

Define Budget Types: page 17 – 168

Drilling Down to Actuals, Commitments, and Events Detail

The following drilldown options are available for actuals, commitments, and events detail in the Task and Resource Status windows:

- You can drill down to see supporting actuals details for the project summary amounts as of the project's last summarized reporting period.
- You can drill down to see supporting commitment details for the commitment summary amounts as of the project's last summarized reporting period.
- You can drill down to see supporting revenue details, including expenditure items and events, for the project revenue summary amounts as of the project's last summarized reporting period.
- You can drill down from the Task Status window to the Oracle Payables Invoice Overview form.

Table 9 – 1 illustrates from which status windows you can drill down to actuals, commitments, and events detail, and any drilldown restrictions imposed by each window. The drilldown to events is only available for contract projects with Oracle Project Billing.

Window Name	Commitments	Actuals	Events	Restrictions
Project Status	X		X	
Task Status	X	X	X	You must select a lowest task before choosing the Commitments or Actuals button, or a top task before choosing the Events button.
Resource Status	X	X	X	You must select a lowest task before choosing the Commitments or Actuals button or a top task before choosing the Events button.

Table 9 – 1 (Page 1 of 1)

Prerequisite

- ☐ If you want to view budget summarization information, enter and baseline a budget for the project. See: Entering a Draft: page 3 – 15 and Baselining a Draft: page 3 – 36.
- ☐ Run the Update Project Summary Amounts for your projects. See: Updating Project Summary Amounts: page 9 – 17.

► To review actuals details for a task or resource:

1. Navigate to the Project Status window.
2. Find the project(s) you want in the Find Project Status window.
3. Choose the **Actuals** button from either the Task Status or Resource Status window.

Use the Find Expenditure Items window to reduce the number of expenditure items that appear in the Expenditure Item Details window.

By default, Project Status Inquiry displays expenditure items incurred in the last period that was summarized for the project. To view expenditure items from prior periods in the Expenditure Items window, change the default date range using the Find Expenditure Items window. You can set the start date to the earliest possible date by choosing the Clear button.

► **To drill down to the Oracle Payables Invoice Overview window:**

1. Navigate to the Project Status window.
2. Find the project(s) you want in the Find Project Status window.
3. Choose the **Actuals** button from the Task Status window.

Use the Find Expenditure Items window to reduce the number of expenditure items that appear in the Expenditure Item Details window.

4. Choose the **AP Invoice** button to view the related invoice in the Oracle Payables Invoice Overview form.

The AP Invoice button is only enabled (1) for expenditure items whose expenditure type class is either Supplier Invoices or Expense Reports, and (2) if function security is implemented in such a way that the user is able to see the button.

► **To review commitment details:**

1. Navigate to the Project Status window.
2. Find the project(s) you want in the Find Project Status window.
3. Choose the **Commitments** button from either the Project Status, Task Status, or Resource Status window.

Use the Find Commitments window to reduce the number of commitments that appear in the Commitment Details window.

If you choose Commitments from the Project Status window, both project-level and task-level commitments are displayed.

► **To review event revenue details for a project, task, or resource:**

- Choose the **Events** button from the Project Status, Task Status, or Resource Status window.

See Also

Expenditure Type Classes: page 17 – 78

Function Security: page C – 2

Reviewing Customer Invoices for a Contract Project

In the Project Status window, you can drill down to view either summary or detail information about customer invoices for contract projects.

► **To review customer invoices for a contract project:**

1. Navigate to the Project Status window.
2. Find the contract project(s) you want in the Find Project Status window.
3. Choose a contract project in the Project Status window.
4. Choose the Invoices button.

See Also

Invoicing a Project: page 8 – 48

Project Summary Amounts

To facilitate fast and easy status reporting and inquiries, Oracle Projects maintains various levels of project summary amounts for cost, commitment, revenue, and budget amounts by project, task, and resource.

Oracle Projects maintains to–date amounts as follows:

- Period–to–Date Amounts (PTD)
- Prior Period Amounts (PP)
- Year–to–Date Amounts (YTD)
- Project or Inception–to–Date Amounts (ITD)

You can update project summary amounts anytime after you distribute costs, independent of when you interface costs and revenue to Oracle General Ledger. This allows you to have up–to–date information for project status reporting, independent of the accounting flow.

See Also

Maintaining To–Date Amounts: page 9 – 15

Resources and Resource Lists: page 17 – 174

Maintaining Summary Amounts

Oracle Projects maintains amounts for each of the to–date values of Period–to–Date (PTD), Prior Period (PP), Year–to–Date (YTD), and Inception–to–Date (ITD), in addition to total (at project completion) budget amounts.

All amounts are held at the project, task, and resource levels except for non–labor quantities. Labor hours are summarized to the project and task levels based on the labor resource amounts. All other quantities that are not labor hours are summarized only to the resource level.

Actual Cost Amounts

Oracle Projects summarizes the following cost amounts for expenditure items after the items are costed:

- Raw Cost
- Billable Raw Cost (for contract projects only)
- Capitalizable Raw Cost (for capital projects only)
- Burdened Cost
- Billable Burdened Cost (for contract projects only)
- Capitalizable Burdened Cost (for capital projects only)
- Actuals Labor Hours
- Billable Labor Hours (for contract projects only)
- Actuals Quantity (for resources only)
- Billable Quantity (for resources only; for contract projects only)

Actual Revenue Amounts

Oracle Projects summarizes the following revenue amounts for billable expenditure items and events on contract projects after the revenue is released:

- Revenue

Budget Amounts

Oracle Projects summarizes budget amounts for the to–date values, in addition to total (at project completion) budget amounts, using the current and original budget versions of each budget type. When you run the Update Project Summary Amounts process, Oracle Projects deletes all previously summarized cost and revenue budget amounts and recreates the new budget to–date and total amounts.

Cost Budget Amounts

- Current Budget Raw Cost
- Original Budget Raw Cost
- Current Budget Burdened Cost
- Original Budget Burdened Cost
- Current Budget Cost Labor Hours
- Original Budget Cost Labor Hours
- Current Budget Cost Quantity (for resources only)
- Original Budget Cost Quantity(for resources only)

Revenue Budget Amounts

- Current Budget Revenue
- Original Budget Revenue
- Current Budget Revenue Labor Hours
- Original Budget Revenue Labor Hours
- Current Budget Revenue Quantity (for resources only)
- Original Budget Revenue Quantity (for resources only)

Reconciling Budget Periods to Summarization Periods

If a budget period does not match the summarization period or the budget is not time-phased, the summarization process must apportion the budget amounts into the summarization periods.

If a budget is not time-phased, Oracle Projects determines the budget start and end dates based on the project or task start and end dates, as illustrated in the following table:

Budget Entry Level	How the Budget Period is Determined
Project	Project Start and End Dates
Task (where start and end dates have been entered for the task)	Task Start and End Dates
Task (where start and end dates have not been entered for the task)	Project Start and End Dates

Table 9 – 2 (Page 1 of 1)

Reconciling Summarization by PA Period

If summarization is by PA period, the summarization process divides the amounts into PA periods. If a budget period spans PA periods, the process prorates the amounts by day.

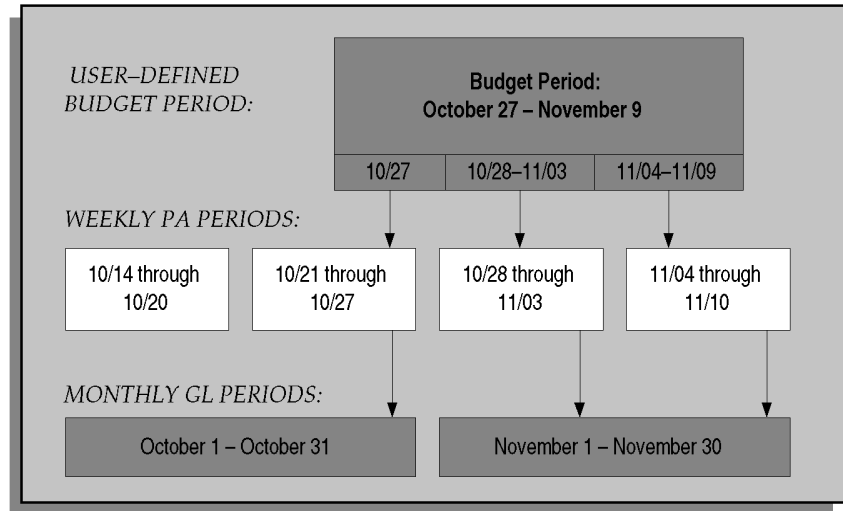
Reconciling Summarization by GL Period

If summarization is by GL period, the summarization process uses the following logic:

1. Divide the amounts into PA periods, prorating the amounts by day if a budget period spans PA periods.

2. Summarize the amounts in the GL period that includes the ending date of the PA period determined in step 1. This process is illustrated in the following diagram:

Figure 9 – 1 Summarization by GL Periods



See Also

Implementation Options: Summarization Period Type: page 17 – 58

Commitment Amounts

The summarization process updates the following commitment amounts:

- Commitment Raw Cost
- Commitment Burdened Cost

When you run the summarization process, Oracle Projects checks the commitments for each project to see if any of the following changes have occurred:

- new commitments have been added

- a commitment has been fully or partially converted to cost (for example, a purchase order has been matched by a supplier invoice.)
- the status of a commitment has changed from Unapproved to Approved

If any of these changes have occurred, the commitment summary amounts are deleted and recreated.

If you have modified the Oracle Projects commitments view, PA_COMMITMENT_TXNS_V, you must also modify the Commitment Changes client extension to test for changes in commitments.

See Also

Drilling Down to Commitment Details: page 9 – 7

Define Budget Types: page 17 – 168

Integrating Commitments from External Systems: page 18 – 29

Commitment Changes Client Extension: page 17 – 168

Maintaining To–Date Amounts

Oracle Projects maintains to–date summary amounts as follows:

- Period–to–Date Amounts (PTD)
- Prior Period Amounts (PP)
- Year–to–Date Amounts (YTD)
- Project or Inception–to–Date Amounts (ITD)

You also specify the current reporting period through which the to–date values are maintained.

The prior–period summary amounts are the period–to–date summary amounts for the previous reporting period. The period–to–date, year–to–date, and inception–to–date amounts are summarized in relation to the current reporting period.

Oracle Projects derives the year–to–date values using the accounting year of the GL period associated to the current reporting period.

Summarization Period Type

During implementation, you define whether to maintain these to–date amounts by PA period or GL period. You specify this in the Implementation Options window. See *Implementation Options: Summarization Period Type*: page 17 – 58

Current Reporting Period

The current reporting period defines the period through which the amounts are summarized for all projects in your system. A common reporting period facilitates cross–project reporting.

Setting the Current Reporting Period

You set the current reporting period used in maintaining project summary amounts in the PA Periods window. You can select any PA period that is later than the current reporting period.

Typically, you set the current reporting period in one of two ways:

- Use the closed PA period before the current open period for new transactions. This method provides a static view of the project summary amounts and gives a historical view through the last period.
- Use the current PA Period open for transactions. This provides a dynamic view of the project summary amounts, because you can update the values for all new transactions entered each day.

Prerequisite

- ☐ Define PA Periods.

► To query the current reporting period:

- Navigate to the PA Periods window. Query the PA Period with the Reporting Period box checked. This is the current reporting period.

► To change the current reporting period:

1. Navigate to the PA Periods window.
2. Choose the Set Reporting Period button.

3. Accept the default or change the Next Reporting period to another future period.
4. Choose OK. Oracle Projects uses the New Reporting Period you specify for subsequent project summary amount processing and reporting.

Optionally submit the Update Project Summary Amounts process for all projects in your system to update the project summary amounts using the new current reporting period. See: Updating Project Summary Amounts: page 9 – 17.

See Also

Setting the PA Reporting Period: page 17 – 73

Updating Project Summary Amounts

You run the Update Project Summary Amounts process to update the project summary amounts with new cost, commitment, and revenue transactions and any new baselined budget versions. You can run this process as many times as you want.

If you maintain to-date amounts by GL period, select the PA period in the PA Periods window that is the first PA period of the GL period that you are selecting as the current reporting period.

You run the Update Project Summary Amounts After a Resource List Change process when you have changed the resource list and want to map historical transactions to resources using the new resource list.

Prerequisites

- ☐ Enter expenditure items and distribute costs (optional).
- ☐ Accrue and release revenue (optional).
- ☐ Create new commitments (optional).
- ☐ Create a new current budget (optional).
- ☐ Set the current reporting period.

► **To update project summary amounts:**

1. Navigate to the Submit Request window.
2. Choose the PRC: Update Project Summary Amounts process or the PRC:Update Project Summary Amounts After a Resource Change process.
3. Enter the project range or project number for which you want to update summary amounts. You may choose to submit this process many times for different project ranges.
4. Optionally, enter other options to control what Oracle Projects updates.
5. Choose Submit.

► **To update project summary amounts after changing a resource list:**

1. Choose PRC: Update Project Summary Amounts After a Resource List Change process in the Submit Request window.
2. Enter the From / To Project Number and Resource List Name. You may choose to submit this process many times for different project ranges.
3. Choose Submit.

See Also

Update Project Summary Amounts: page 11 – 76

Summarizing Actuals and Commitments by Resource: page 9 – 20

Setting the Current Reporting Period: page 9 – 16

Creating Project Summary Amounts After Conversion

After you have converted detail transactions from your legacy system to Oracle Projects, you can create project summary amounts using these processes:

- Update Project Summary Amounts

Use this process to create the project summary amounts from the detail transactions that you have converted.

- **Refresh Transaction Summary Amounts**

Use this process if you are converting large numbers of detail transactions for projects and want to build the summary amounts in smaller processing units. You first run the Refresh Transaction Summary Amounts process to create transaction summary amounts upon which project summary amounts are created. You then run the Update Project Summary Amounts process to create the project summary amounts.

► **To create project summary amounts after conversion:**

1. Navigate to the Submit Request window and choose PRC: Update Project Summary Amounts.
2. Enter the project range parameter. You may submit many requests for different project ranges.
3. Choose Submit.

► **To create project summary amounts after conversion by first creating transaction summary amounts from a project's detail transactions:**

1. Navigate to the Submit Request window and choose PRC: Refresh Transaction Summary Amounts.
2. Enter the project range, period range, and expenditure type class parameters. You may submit many requests for different project ranges, period ranges, or expenditure type classes.
3. Choose Submit.
4. After you have built all the transaction summary amounts, run the PRC: Update Project Summary Amounts process to create the project summary amounts. See: Updating Project Summary Amounts: page 9 – 17.

Troubleshooting Project Summary Amounts

Summarization Log

If you suspect that the project summary amounts do not properly reflect the source detail, a good way for you to start troubleshooting is to

examine the log file produced by the Update Project Summary Amounts process. The summarization log shows the following information related to a project-level summarization:

- The submission parameters for the process
- Before and after numbers for actuals
- Before and after numbers for each budget type

Careful examination of the summarization log can provide evidence as to whether the problem originated in the summarization process or some other aspect of the Oracle Projects application.

Update Project Summary Amounts Report

The Update Project Summary Amounts Report, which is produced by the Update Project Summary Amounts process, lists all costs, revenue, budget amounts, and commitments that were summarized during the process.

This report also lists *future period transactions*. Future period transactions are transactions whose PA Period is later than the current PA reporting period. Any transactions appearing in this section have not been summarized by the Update Project Summary Amounts process, and will not be reflected in the Project Summary window. To summarize these transactions, you must set the current reporting period to a PA Period equal to or later than the PA Period of these transactions. See: Setting the PA Reporting Period: page 17 – 73.

Summarizing Actuals and Commitments by Resource

Oracle Projects summarizes actuals and commitments by resource when you update project summary amounts.

Oracle Projects automatically maps each transaction to one resource in each resource list assigned to the project to which the transaction is charged. This mapping is based on the following: employee or supplier, expenditure organization, and expenditure type of the transaction; you do not have to specify the resource when you enter the transaction.

Oracle Projects maps each transaction to a resource based on the combination of the resource and its resource group. For example, you can enter an organization resource of Risk Analysis under both the resource groups of Labor and Other Expenses in one resource list. Timecards for the Risk Analysis organization map to the resource of

Risk Analysis under the Labor resource group, and expense reports for the Risk Analysis organization map to the Risk Analysis resource under the Other Expenses resource group.

Precedence-Based Mapping of Transactions to Resources

There are cases in which one transaction could map to more than one resource in a resource list. For example, you may have entered both an employee resource for Marlin and a job resource of Senior Consultant under the Resource Group of labor. Amy Marlin, a senior consultant, charges labor to the project using this resource list. Marlin's labor transaction can be mapped to both resources. However, Oracle Projects ensures that each transaction maps to only one resource in a resource list by utilizing a precedence-based mapping to determine which resource in the resource list is mapped to each transaction. Oracle Projects predefines the precedence of each resource type for each expenditure type class. The resource types that are more specific are ranked higher and thus are used to summarize the transaction amounts.

The precedence by resource type is as follows:

1. Employee and Supplier
2. Job
3. Organization
4. Expenditure Type and Event Type
5. Expenditure Category and Revenue Category

For example, an employee resource is used before a job resource is used.

When a Transaction Does Not Map to a Resource

It is possible that a transaction cannot be mapped to any resource defined in the resource list. Oracle Projects maps such transactions to an *Unclassified* resource.

If you discover that transactions are mapped to an Unclassified resource, and you subsequently want to change the resource list to ensure that all transactions are mapped to a resource, you can add the appropriate resource to the resource list and then update the project summary amounts after a resource list change.

Changing the Resource List After the Resource List is Used in Summarization

You may need to change your resource list after you have used it for summarization for status reporting. Some reasons for this may be due

to new employees or organizations defined for your company, if you use employees and organizations as resources, or because your company has decided to classify expenses in a different way, thus disabling use of an expenditure type.

When you change a resource list, the new resource may change the way a transaction is mapped to a resource. In such a case, you need to decide how to handle the transactions that have already been summarized using the resource list precedence that existed before you made the change. You may choose to leave the historical transactions summarized as they are and have new transactions summarized using the new precedence. For more consistency in the summarization, you can summarize all historical transactions mapped to resources in that resource list again so that they use the new resource precedence by running the PRC: Update Project Summary Amounts after a Resource List Change process.

See Also

Updating Project Summary Amounts: page 9 – 17

Resources and Resource Lists: page 17 – 174

Resource List Assignments: page 2 – 48

Project Summary Amounts: page 9 – 11

Case Study: Summary Amounts for Reporting: page 16 – 20

Project Status Inquiry: page 9 – 2

Reviewing Resource Summary Amounts: page 9 – 3

CHAPTER

10

Reports and Listings

This chapter describes each standard report and listing in Oracle Projects.

Submitting Reports and Listings

Use Oracle Projects standard reports and listings to review your system setup, keep track of your projects, and reconcile Oracle Projects to your general ledger.

You can run a single report (see: Submitting Requests: page 10 – 2) or submit a streamline request to run a predefined group of reports and processes at one time (see: Submitting Streamline Processes: page 11 – 6).

Submitting Requests

► **To submit a standard request from the Submit Request window:**

1. Navigate to the Submit Request window.
2. Enter *Request* in the Type field.
3. Enter the name of the request that you want to submit.
4. If the request or request set has parameters, enter the parameters in the Parameters window. Choose OK to save the parameters.
5. Choose Submit to submit your request. You can review the status of your request in the Concurrent Requests Summary or in the Requests window.

Cancelling Requests

► **To cancel a concurrent request:**

- In the Concurrent Requests Summary, query the concurrent request number for your request. Select your request. Choose Cancel Request. See also: Cancelling Requests, *Oracle Applications User's Guide*.

Monitoring Requests

► **To monitor status of a concurrent request:**

- You can view the status of your request in the Requests window by choosing View My Requests from the Help Menu. See Also: Monitoring Requests, *Oracle Applications User's Guide*.

Debug Mode

You can run Oracle Projects processes and some reports in debug mode. Debug mode provides more details in the log file for debugging purposes, and creates a trace file for performance analysis.

► **To run a process or report in debug mode:**

Set the profile option **PA: Debug Mode** to *yes*, and submit the process or report.

See Also

Submitting Streamline Processes: page 11 – 6

Defining Request Sets *Oracle Applications User's Guide*

Submitting a Request *Oracle Applications User's Guide*

Submitting a Request Set *Oracle Applications User's Guide*

Implementation Listings

These implementation listings help you audit your implementation of Oracle Projects, so you can verify your entry of implementation data and document your implementation decisions.

Report Submission

You submit each of the implementation listings from the Submit Request window. Include the prefix "IMP:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Agreement Types Listing

Use the IMP: Agreement Types Listing to review all agreement types and their associated terms and revenue limit defaults. See also: Agreement Types: page 17 – 135.

AutoAccounting Functions Listing

Use the IMP: AutoAccounting Functions Listing to review a complete list of the parameters and transactions associated with a particular AutoAccounting function.

For each function, this report displays all of the possible parameters that AutoAccounting rules use to derive key flexfield segment values. The report also shows you all of the transactions related to the AutoAccounting function and whether each transaction is enabled or disabled.

Parameters

Function Name. to limit the output of this report to only one function, enter the function. Otherwise, leave this field blank.

AutoAccounting Lookup Sets Listing

Use the IMP: AutoAccounting Lookup Sets Listing to obtain a list of all the AutoAccounting lookup sets.

For each AutoAccounting lookup set selected, this report prints each possible intermediate value and its corresponding segment value.

Parameters

Lookup Set. To limit the output of this report to only one lookup set, enter the lookup set. Otherwise, leave this field blank.

AutoAccounting Rule Definitions Listing

Use the IMP: AutoAccounting Rule Definitions Listing to review the definition of a particular AutoAccounting rule. See: Define Rules: page 17 – 240.

For each AutoAccounting rule selected, this report displays the type of its intermediate source (either a Constant, Parameter, or SQL Statement) and the corresponding value for that source. If the intermediate value source is a SQL statement, this report displays the text of that statement.

This listing also includes the segment value source (either the Intermediate Value or a Segment Value Lookup Set) that maps an intermediate value to the final segment value. If the segment value source is a lookup set, this report displays the name of that lookup set.

Parameters

Rule Name. To limit the output of this report to only one rule name, enter the rule name. Otherwise, leave this field blank.

AutoAccounting Segment Rule Pairings Listing

Use the IMP: AutoAccounting Segment Rule Pairings Listing to review all pairings of AutoAccounting rules with key flexfield segments.

For each function selected, this report displays each of the function's transactions. It also lists the AutoAccounting rule and key flexfield segment pairings for each transaction. See: Assigning Rules to Transactions: page 17 – 252.

This report also displays the function's transactions without paired segments and rules.

Parameters

Function Name. To limit the report to only one function, enter the function. Otherwise, leave this field blank.

Class Categories and Codes Listing

The IMP: Class Categories and Codes Listing lists class categories and their associated class codes. See: Defining Project Classifications: page 17 – 186.

For each class category selected, this report indicates whether a class category is a mandatory part of project setup, whether AutoAccounting uses the class category, and whether the "pick one code only" restriction is assigned to a class category.

Parameters

Class Category. To limit the report to one class category, enter the category. Otherwise, leave this field blank

Compensation Rules Listing

Use the IMP: Compensation Rules Listing to review compensation rules. See: Compensation Rules: page 17 – 104.

Parameters

Compensation Rule. To limit the report to only one compensation rule, enter the compensation rule. Otherwise, leave this field blank.

Credit Types Listing

Use the IMP: Credit Types Listing to obtain a list of all credit types. See: Credit Types: page 17 – 160

Employee Assignments Listing and Employee Assignments by Organization Listing

Use the employee assignments reports to review all employees including their associated organization and job assignments. See: Employees: page 17 – 51.

IMP:Employee Assignments Listing. If you want a listing for a particular organization, use this report and specify that organization in the report parameters. Leave organization parameters blank to see all employees.

IMP:Employee Assignments by Organization Listing. This report starts with a particular organization and reports down the organization hierarchy listing employees and their jobs. You cannot print a listing for a single organization using this report unless the organization is on the lowest level of the hierarchy.

Parameters

Enter values for organization, job, job level, and / or job discipline, to limit the output of this listing to include only the specific employees you want to review.

Effective Date. Date Oracle Projects uses to identify active employee assignments. The report lists only active employees.

Start Organization. (Employee Assignments by Organization Listing only). Organization from which you want the report to start down the organization hierarchy listing employee assignments.

Event Types Listing

Use the IMP: Event Types Listing to obtain a list of all the event types and their classifications. See: Event Types: page 17 – 162.

Expenditure Cost Rates Listing

Use the IMP: Expenditure Cost Rates Listing to review the non-labor expenditure cost rates. You can print a listing for one or all expenditure categories, one or all expenditure types, and / or for a specified effective date. If an effective date is specified for the report,

the report will list only expenditure cost rates that are active as of the date you enter.

See: Defining cost rates for expenditure types: page 17 – 101.

Expenditure Types Definition Listing

Use IMP: Expenditure Types Definition Listing to review expenditure types. You can print a listing for one or all expenditure categories and/or for a specified effective date. If an effective date is specified for the report, the report will list only expenditure types that are active as of the date you enter.

See: Expenditure Types: page 17 – 87

Implementation Options Listing

Use the IMP: Implementation Options Listing to review all values you entered in the Define Implementation Options window. See: Implementation Options: page 17 – 57.

Invoice Formats Listing

Use the IMP: Invoice Formats Listing to review invoice formats. See: Invoice Formats: page 17 – 148.

For each invoice format listed, this report displays the grouping, the invoice format type, and the fields and text objects that comprise each invoice format line.

Parameters

Format Name. To limit the report to one format name, enter the format name. Otherwise, leave this field blank.

Grouping Name. To submit the report for only one grouping name, enter the grouping name. Otherwise, leave this field blank.

Job Listing

Use the IMP: Job Listing to review jobs. See: Jobs: page 17 – 47.

Labor Cost Multipliers Listing

Use the IMP: Labor Cost Multipliers Listing to review all labor cost multipliers. See: Labor Cost Multipliers: page 17 – 107.

Labor Cost Rates Listing and Labor Cost Rates By Organization

Use the Labor Cost Rates Listings to review all employees and their cost rates, job level, job discipline, or compensation rule. See: Employee Cost Rates: page 17 – 106, and Employees: page 17 – 51.

IMP: Labor Costs Rates Listing. For each employee listed, this report displays the employee's active organization and job assignments, the assigned compensation rule, and the hourly cost rate.

IMP:Labor Cost Rates Listing By Organization. This report starts at a specified organization and reports down the organization hierarchy listing employees and their labor cost rates. You cannot print a listing for a single organization using this report unless the organization is on the lowest level of the hierarchy.

Selected Parameters

Top Organization. (Cost Rates Listing By Organization only) The organization from which you want the Labor report to start down the organization hierarchy.

Effective Date. This listing includes all labor cost rates that are effective as of the date you enter here. Leave blank to include all labor cost rates.

This listing also includes all employee organization and job assignments that are active as of the date you enter here.

Job Level. To submit the report for employees at only one job level, enter the job level. Otherwise leave this field blank.

Job Discipline. To submit the report for only on job discipline, enter the job discipline. Otherwise, leave this field blank.

Compensation Rule. To submit the report for only one compensation rule, enter the compensation rule set.

Non-Labor Resources by Organization Listing

Use the IMP: Non-Labor Resources by Organization Listing to review all non-labor resources associated with a particular organization, expenditure category, or expenditure type. See: Employee Cost Rates: page 17 – 106, and Employees: page 17 – 51.

For each organization listed, this report displays the organization's non-labor resources and their corresponding expenditure types and expenditure categories.

Parameters

You are not required to enter any parameters. To narrow your listing you can enter one or more parameters.

Organization Hierarchy Listing

Use the IMP: Organization Hierarchy Listing to review relationships between organizations. See: Organization Hierarchies: page 17 – 40.

This report displays each organization in the hierarchy and its corresponding organization type. By using an indented-outline format, this report depicts the hierarchical relationships between the listed organizations.

Parameters:

Top Organization. The organization from which you want this report to start down the organization hierarchy.

See Also

Organization Listing: page 10 – 11

Organization Listing

Use the IMP: Organization Listing to review organizations. Organizations are work units that Oracle Projects uses for employee assignments, project and task ownership, and cost and revenue allocation.

This report displays each defined organization, its organization type, whether it is Internal or External, and its location. See: Organizations: page 17 – 35

Parameters:

Organization Type. to limit the output of this report to one organization type, enter the organization type. Otherwise leave this field blank.

See Also

Organization Hierarchy Listing: page 10 – 10

Project Accounting Lookups Listing

Use the IMP: Project Accounting Lookups listing to review all lookup codes, meanings, and descriptions associated with a particular lookup type.

For each lookup type listed, this report displays whether the lookup type and its codes are system–defined or user–definable. It then lists all the lookup codes for a lookup type and their corresponding meanings and active dates.

Parameters

Lookup Type. To limit the output of this report to only one lookup type, enter the lookup type. Otherwise, leave this field blank.

Project Accounting Periods Listing

Use the IMP: Project Accounting Periods Listing to review all project accounting periods. See: Project Accounting Periods: page 17 – 69.

For each project accounting period, this report displays its start and end dates, and its closing status.

Parameters

Closing Status. To limit the report to periods with one closing status, enter the closing status (Closed, Future, Never Opened, or Open). Otherwise, leave this field blank.

Project Contact Types Listing

Use the IMP: Project Contact Types Listing to review all project contact types. See: Defining Contact Types: page 17 – 194.

Project Customer Relationships Listing

Use the IMP: Project Customer Relationships Listing to review all project customer relationships. See: Defining Project Customer Relationships: page 17 – 193.

Project Role Types Listing

Use the IMP: Project Role Types Listing to review all of project role types. See: Project Role Types: page 17 – 191.

For each project role type listed, this report indicates whether individuals with that project role type are permitted to query labor costs.

Project Statuses Listing

Use IMP: Project Statuses Listing to review the list of all project statuses. See: Project Statuses: page 17 – 183.

Project Types Listing

Use IMP: Project Types Listing to review all project types. See: Project Types: page 17 – 196.

For each project type listed, this report displays whether the project type is direct or indirect, and whether costs are burdened. It also displays the default service type, default labor and non-labor bill rate schedules, default invoice formats, and the distribution rules assigned to the project.

Parameters:

Project Type. To limit the report to only one project type, enter the project type. Otherwise, leave this field blank.

Revenue Categories Listing

Use the IMP: Revenue Categories Listing to review revenue categories. See: Revenue Categories: page 17 – 83.

For each revenue category listed, this report prints all the associated expenditure types and their corresponding expenditure categories.

Parameters:

Revenue Category. To limit the report to only one revenue category, enter the revenue category. Otherwise, leave this field blank.

Service Types Listing

Use the IMP: Service Types Listing to review all the service types. See: Service Types: page 17 – 189.

Standard Bill Rate Schedules Listing

Use the IMP: Standard Bill Rate Schedules Listing to review the rates or markup percentages for an organization's standard bill rate schedule or for all standard bill rate schedules. See: Bill Rate Schedules: page 17 – 137.

Parameters:

Organization. To limit the report to one organization, enter the organization. Otherwise, leave this field blank.

Standard Bill Rate Schedule. To limit the report to one standard bill rate schedule, enter it. If you specify an Organization, the standard bill rate you enter must belong to that organization. Leave blank to submit the report for all standard bill rate schedules.

Effective Date. This report includes all standard bill rates that are active as of the date you enter here. Leave blank to submit the report for all standard bill rates.

Transaction Sources Listing

Use the IMP: Transaction Sources Listing to review the transaction sources you defined to identify data imported into Oracle Projects using Transaction Import. See: Transaction Import: page 11 – 74.

Units Definition Listing

Use the IMP: Units Definition Listing to review all units of measure. See: Units: page 17 – 85.

Project Entry Reports

Use the project entry reports to verify that you have set up your projects correctly.

Report Submission

You submit each of these reports from the Submit Request window. Include the prefix "AUD:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Project Configuration

Use the AUD: Project Configuration report to review the configuration details of a particular project and verify that you have entered the data correctly.

This report lists details of project setup including: multinational information, revenue and billing information, project customers, customer contacts, project members, class categories, employee bill rates overrides, and non-labor bill rate overrides.

Parameters

Project Number. Enter the number of the project for which you want to review setup details.

Task Details

Use the AUD: Task Detail report to review task details for a specific task, or for all tasks of a project. Like the Project Configuration report, this report provides a comprehensive view of how you have defined your tasks.

Parameters

Project Number. Enter the number of the project for which you want to review task details.

Task Number. If you want to submit the report for a particular task number, enter it. Leave blank to submit the report for all task numbers.

Explode Subtasks.

- **Yes.** Display information about each subtask of the specified task.
- **No.** Display information for only top-level tasks of the project you specify in the Project Number option.

Display Task Details. Enter Yes if you want this report to display for each lowest-level task selected, the task organization, customer, and service type details. Enter No to exclude task details.

Work Breakdown Structure

Use the AUD: Work Breakdown report to review the complete task structure of a particular project. This report lists all tasks and subtasks in hierarchical format with their respective start and completion dates. This report lists all tasks in an indented outline format so that you can easily identify the hierarchical relationship between tasks.

Parameters

Project Number. Enter the number of the project for which you want to review that work breakdown structure.

Task Number. To submit the report only for a task and its subtasks, enter the task number. Otherwise, leave this field blank.

Transaction Entry Reports

Use the transaction entry reports to verify that you have set up your projects correctly. You can use these reports to audit preapproved expenditures.

Report Submission

You submit each of these reports from the Submit Request window. Include the prefix "AUD:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Expenditure Batch Status

Use the AUD: Expenditure Batch Status report to view the status of expenditure batches. With this report you can identify expenditure batches that are ready to be released. You can also ensure that none of your expenditure batches go unprocessed by retaining a status of Working or Submitted.

This report groups expenditure batches first by status, then by expenditure type class. It lists the name of the person who entered the expenditure batch, and it prints the Control and Running totals for the batch. This report also provides summaries for each expenditure batch, for each organization, and for the entire report.

Selected Parameters

(Required) **Organization Name.** The organization for which you are submitting the report.

Expenditure Ending Date. To submit this report only for expenditure batches with a particular expenditure ending date, enter the date. Leave blank to submit the report for all expenditure batches.

Display Released Batch? Enter No or leave this field blank if you do not want this report to include expenditure batches with a status of Released. Enter Yes if you want this report to include expenditure batches of any status.

Missing Timecards

The AUD: Missing Timecards report includes employees that:

- have not entered a timecard in the expenditure week
- have entered a timecard, but have not submitted it (timecard has a status of *Working*)
- have a rejected timecard, but have not corrected it and resubmitted it (timecard has status of *Rejected*)

Selected Parameters

The expenditure date range is required. To limit the report, you can enter any other parameters.

From/To Expenditure Ending Date. This report includes only those timecards with expenditure dates on or between the expenditure dates you specify.

Pre-Approved Expenditures Entry Audit

Use the AUD: Pre-Approved Expenditures Entry Audit report to review preapproved expenditures. After you have entered all the expenditures for an expenditure batch, submit this report and use it to verify that all of the data you have entered is correct before you submit your expenditure batch. This report provides a summary for each expenditure batch that displays the total amounts for each expenditure type in the expenditure batch.

The total currency amounts are shown in the transaction currency.

Parameters

(Required) Entered By. The report includes only those expenditure batches entered by the person you specify.

(Required) Expenditure Ending Date. The report selects only expenditure batches with the expenditure date you specify.

(Required) Sort Expenditures By: Choose the criteria by which to order the report output: alphabetically by Employee Name or Organization, or numerically by Employee Number.

Expenditure Batch. To review expenditures for only one expenditure batch, enter an expenditure batch. Otherwise leave this field blank.

Date Entered. To include expenditures entered on one particular date, enter it. Otherwise leave this field blank.

Expenditure Type Class. To limit the output of this report to expenditure batches having a particular expenditure type class, enter an expenditure type class. Otherwise, leave this field blank.

Expenditure Batch Status. To limit the output of this report to expenditure batches having a particular status, enter the expenditure batch status. Otherwise, leave this field blank.

Expenditure Batch Sort By. Choose the criterion by which the report sorts expenditure batches.

Project Expenditures Reports

These reports provide a detailed view of the cost, revenue, and invoice activities of your projects. Use them to review your project expenditures, revenues, invoices, and expenditure item adjustments.

You can also use these reports to compare a project's performance against performance data for other projects within the same organization or across organizations. By submitting and analyzing the reports in this section regularly, you can monitor the performance of your projects.

The reports in this section describe how well your projects perform in terms of their budgets versus actual cost and revenue amounts.

These reports provide you with many different views of actual and budgeted project costs and revenues. For example, Oracle Projects reports revenue, cost, and budget summaries at the project level, the task level, the Work Breakdown Structure, the project level by category, and the task level by category. In addition, these reports display budgeted and actual costs and revenues for a specified PA Period, a PA Period range, or as project-to-date amounts.

The reports in this section also provide you with information about the status of your agreements and employee activity by organization.

Report Submission

You submit each of these reports from the Submit Request window. The report names include a prefix of either "MGT:" or "AUD:". See: Submitting Requests: page 10 – 2.

Expenditures Detail Report

The MGT: Expenditures Detail Report shows expenditures detail for one project. The report shows each expenditure item's revenue amount, burdened cost amount, and billing status. It includes totals for labor items, non-labor items, and the entire project.

The report also separates expenditure items into the categories of labor and non-labor. Because labor costs may be sensitive information, the report displays labor costs only if the employee submitting the report is a cross-project user or a project member having a project role type that allows access to view labor costs. If the employee submitting the

report does not have access to view labor costs, the report does not display labor costs.

This report shows amounts in the project currency.

Selected Parameters.

The Sort Expenditures By parameter is required both reports. If you submit the detail report, you must also enter a project number. You can enter any other parameters to limit the report.

Project Number. Enter the number of the project for which you want to review expenditure details.

Sort Expenditure Items By. Choose the order in which you want to view the report:

- **Employee.** Alphabetically by the employee who submitted the expenditures.
- **Expenditure Item Date.** Ascending date order by the date on which the expenditure item was incurred.
- **Expenditure Type.** Alphabetically by expenditure type.
- **Task.** In alphanumeric order by task number.
- **Vendor.** Alphabetically by supplier.

Suppress Labor Costs? To exclude labor costs from the report, enter Yes. Enter No to include labor costs and revenue.

From/To Expenditure Item Date. The report lists expenditure items dated on or after the From Expenditure Date, and on or before the To Expenditure Date. Both parameters are optional.

Display Comments. To display any comments the expenditure items may have, enter Yes. Enter No to omit comments.

Task Number. Enter the task number of the particular task for which you want to review expenditure details. The task you enter here must be a lowest-level task of the project you specified in the Project Number option. Leave this option blank to include expenditure details for all tasks.

Incurred By Organization. To report on only one organization, enter the organization. Otherwise leave this option blank.

Billable/Capitalizable Flag Yes/No: Enter Yes if you want the report to show only billable/capitalizable expenditures, or No if you want it to show only non-billable and non-capitalizable expenditures. Otherwise, leave this option blank.

Items On Hold Yes/No: Enter Yes if you want the report to show only items on hold, or No if you want it to show only items that are not on hold. Otherwise, leave this option blank.

Expenditures Summary Report

The MGT: Expenditures Summary Report gives an overview of expenditures for one project or many projects belonging to a specified organization or project manager.

For each project listed, this report selects the total labor hours reported, the total billable hours as a portion of the total hours, the total burdened costs, and the total revenue of the project.

The report also separates expenditure items into the categories of labor and non-labor. Because labor costs may be sensitive information, the report displays labor costs only if the employee submitting the report is a cross-project user or a project member having a project role type that allows access to view labor costs. If the employee submitting the report does not have access to view labor costs, the report does not display labor costs.

This report shows amounts in the project currency.

You can submit this report for a particular period of time by specifying the start and end dates of the desired date range in the report parameters. If you do not specify a date range, this report displays project-to-date expenditure totals.

Selected Parameters.

Sort Expenditure Items By. Choose the order in which you want to view the report:

- **Employee.** Alphabetically by the employee who submitted the expenditures.
- **Expenditure Item Date.** Ascending date order by the date on which the expenditure item was incurred.
- **Expenditure Type.** Alphabetically by expenditure type.
- **Task.** In alphanumeric order by task number.
- **Vendor.** Alphabetically by supplier.

From/To Expenditure Item Date. Enter start and/or end dates of the desired date range. If you do not specify a date range, the report displays project-to-date expenditure totals.

Suppress Labor Costs? To exclude labor costs from the report, enter Yes. Enter No to include labor costs and revenue.

Project Expenditure Adjustment Activity

Use the AUD: Project Expenditure Adjustment Activity report to review all the adjustments made to expenditure items of a particular project. You can make adjustments to expenditure items. See: Expenditure Adjustments: page 4 – 26 and Adjustments to Supplier Invoices: page 4 – 44.

Your accounting department can submit this report regularly to audit the kinds of expenditure adjustments being made for a project. For example, they can use this report to identify any expenditure adjustments that are unauthorized or against company policy.

Parameters

The Project Number parameter is required. You can enter other parameters to limit the report.

Project Number. Enter the number of the project for which you want to review expenditure adjustment activities.

Task Number. Enter the number of the lowest level task whose expenditures want to review. Leave this field blank to review expenditure adjustment activities for all tasks.

Employee Name. To limit report output to only one employee's adjustment activity, enter the employee name. Otherwise, leave this field blank.

From/To Adjustment Date. The report includes expenditure adjustments made on and after the From Adjustment Date, and on and before the To Adjustment Date. Both fields are optional.

Transfer Activity Report

Use the MGT: Transfer Activity report to review the expenditure item transfers into and out of a particular project. You can use this report as

an audit tool to control project costs by identifying incorrect or unauthorized transfers for a project. You can also use this report to verify any expenditure item transfers that you perform.

For each specified project, this report shows you the expenditure items transferring into or out of the project and the transfer history of each of these expenditure items. For each expenditure item listed, this report displays the item's cost amount, its quantity, and either the destination project and task numbers or the originating project and task numbers, depending on the expenditure item's transfer direction.

Selected Paramaters

You must enter a Project Number. You can enter other parameters to limit the report.

Project Number. Enter the number of the project for which you want to run the report.

Project Status Reports

Use the Project Status Reports to review revenue and costs for your projects.

Report Submission

You submit each of these reports from the Submit Request window. Include the prefix "MGT:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Revenue, Cost, Budgets by Resources (Project Level)

Use the MGT: Revenue, Cost, Budgets by Resources (Project Level) report to review project revenue and costs broken down by resources for a particular PA Period and for the project-to-date. This report also displays budgeted revenue and cost amounts broken down into the same resources, but only under the project-to-date column since budgets are independent of PA Periods.

This report always lists revenue amounts by revenue budget type, but the categorization of costs depends on how a project is budgeted. If the project is budgeted by budget item at the project level, then this report lists costs by the cost breakdown code specified in the project-level budget. For the cost breakdown level of Organization and Organization/Expenditure Category and Job, this report lists costs by expenditure category.

If budget amounts are not entered at the budget-item level, then this report cannot determine the revenue or expenditure categories in which the amounts belong. For these cases, it displays the budget amounts under the revenue or expenditure category titled Uncategorized.

For each project selected, this report displays the project's total unbilled receivables amount and its total unearned revenue amount.

If a budget is categorized at the task level, this report shows only summarized information for categorized costs for the whole project across all tasks.

Parameters

Although the report parameters are each optional, you must enter a value for at least one of the following: Project Organization, Project

Manager, or Project Number. Enter any additional parameters to limit the report. If you do not enter a Period Name, the report uses the current PA period.

Task – Revenue, Cost, Budgets by Resources

Use the MGT: Task–Revenue, Cost, Budgets by Resources report to review a task’s revenue and costs broken down by resources for a particular PA Period and for the project-to–date.

This report is the task–level counterpart to the Revenue, Cost, Budgets by Resources (Project Level) report. Like the Project Level report, this report lists revenue by revenue budget type and costs by the cost breakdown code specified for the budget items budget. The only difference in this case is that the budget items budget must exist at the task level instead of the project level.

If a task has direct budgeted amounts, but it does not have budgeting by budget item, then this report cannot determine the revenue or expenditure categories in which the budget amounts belong. For these tasks, it displays the budget amounts under the revenue or expenditure categories entitled Uncategorized.

Although you can submit this report to run for all tasks belonging to a specified organization or task manager, it provides summaries only by task.

Parameters

Although the report parameters are all individually optional, you must enter a value for at least one of the following: Task Organization, Task Manager, or Project Number. Enter any additional parameters to limit the report.

Revenue, Cost, Budgets by Work Breakdown Structure

Use the MGT: Revenue, Cost, Budgets by Work Breakdown Structure report to review the tasks in a project’s work breakdown structure and their budgeted and actual revenue, burdened costs, and labor hours. This report displays information for projects that have baselined budgets only. This report always displays project-to–date totals.

By default, this report displays all of a project's top-level tasks and their subtasks in an indented outline format that depicts the task hierarchy of the project's work breakdown structure. However, you can enter values for the report parameters that limit the output to top-level tasks only, to a specific top-level task only, or to one top-level task and all of its subtasks.

For each task selected, this report displays the task's actual and budgeted amounts side by side for easy comparison. It also lists the task's completion date, if one exists.

The top-level tasks have corresponding actual costs shown even though Oracle Projects only allows expenditure charges to a lowest-level task. These figures are a sum of the task's subtask amounts. This report rolls-up the amounts of the lowest-level tasks to each level in the project's work breakdown structure, all the way up to the project level itself. The project-level aggregates display on the last line of the report.

The budget amounts also roll-up. However, budget definition is not restricted to one level in Oracle Projects. The budget amounts in this report, therefore, might not originate from the lowest-level tasks. For example, a report can show budget amounts for the top-level task 1.0, but not for 1.0's subtasks. These figures, then, are not rolled-up amounts of the lowest-level tasks.

For each project listed, this report shows the total amount invoiced, the project's accounts receivable, its unbilled receivables, and its unearned revenue.

Parameters

Although the report parameters are each optional, you must enter a value for at least one of the following in order for this report to return output: Project Organization, Project Manager, or Project Number. Enter any additional parameters to limit the report.

Top Task. Enter the number of the project task from which you want this report to start down the work breakdown structure.

Explode Subtasks.

- **Yes.** Display all subtasks under each top level task.
- **No.** Display only top level tasks with amounts that are rolled up from the subtasks.

Employee Activity Report

Report Submission

You submit the MGT: Employee Activity report from the Submit Request window. See: Submitting Requests: page 10 – 2.

Employee Activity by Organization

Use this report to review a summary of an employee's billable and non-billable hours. This report uses the total number of hours and the total number of billable hours to determine an employee's utilization percentage for the specified date range.

This report also summarizes the employee hours by project and expenditure type, giving you several views of the same data. You can use the Display Details parameter to review details of an employee's reported hours by the date on which they were reported.

Selected Parameters

The Start Organization and the date range parameters are required. You can enter any other parameters to limit the report.

Start Organization. Enter the name of the organization from which you want this report to start down the organization hierarchy.

From/To Date. Enter the date range for which you want to submit the report.

Display Details

- **Yes.** Display an employee's hours on each date of the specified range.
- **No.** Do not include any employee hours details.

Billing Review Reports

Use the billing review reports to review invoice information and agreements with your customers.

Report Submission

You can submit each of these reports from the Submit Request window. Include the prefix "MGT:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Invoice Review

Use the MGT: Invoice Review report to review the draft invoices of a particular project. You can use this report to verify your draft invoices before approving and releasing them for interface to Oracle Receivables for final customer invoice generation.

This report begins by listing header information regarding the project. It also displays project totals, including the unbilled receivables amount to date, the currency amount of expenditure items on hold, and the budgeted revenue.

For each draft invoice selected, this report displays invoice header information including the customer name, the percentage of the total invoice amount for which the customer is responsible, and the invoice status. It also displays the AR Invoice Number that is created when you interface your draft invoice to Oracle Receivables.

If you regenerate a draft invoice to credit a previously released invoice and create a customer credit memo, this report displays the number of the original approved invoice in the Credit of Number field.

Below the invoice header information, this report displays all the invoice line items of the draft invoice. The invoice line descriptions appear on the final customer invoice when it is generated in Oracle Receivables. You can change the look and content of your invoice line descriptions by regenerating the draft invoice after first selecting new labor or non-labor invoice formats for your project.

This report finishes by listing a summary of the revenue–distributed expenditure items and billing events that have not yet been billed for this project.

Report Submission

In addition to submitting the MGT: Invoice Review report from the Submit Reports window, you can also submit this report from the Review Invoices, Adjust Invoices, and Release Invoices windows by selecting Print Invoice Review.

Selected Parameters

The following parameters are required: Project Role Type, Invoice Status, Display Details and Display Unbilled Items. You can enter any other parameters to limit the report.

Start Organization. Enter the organization from which you want this report to start down the organization hierarchy. If you leave this option blank, Oracle Projects uses the Start Organization you defined in the Define Implementation Options window.

Invoice Status. To limit the report to a particular invoice status, enter the invoice status:

- **All Invoices.** Invoices of any status.
- **Released Invoices Only.** Draft invoices that have already been released.
- **Unreleased Invoices Only.** Draft invoices that are not yet released.

Display Details. If you enter Yes, the report includes an invoice line details section that displays all of the expenditure items that Oracle Projects selected to produce the invoice lines. Enter No to include invoice lines only.

Display Unbilled Items. Enter Yes to include any unbilled items or items on hold at the end of the output. Otherwise enter No.

Unbilled Receivables Aging

Use the MGT: Unbilled Receivables Aging report to review, by project, eligible revenue items that have not yet been invoiced, or those items not included on a released draft invoice. This report lists the receivables in four buckets. You can specify the number of days you want in each bucket when you submit the report.

You can submit this report for an organization, in which case it groups all projects owned by the organization by their project managers. The report then displays summaries for each project manager.

If you specify a project manager in the report parameters and do not specify an organization, the report groups all projects by project manager regardless of the project-owning organization. This format provides you with the real total of unbilled receivables for a particular project manager.

Events relieve the oldest unbilled receivable as the invoices in which the events are billed are released. Revenue events age from their Completion Date if you choose Expenditure Item Date as your preference in the Age Receivables From report parameter.

Selected Parameters

The Age Receivables From and the Number of days in Bucket parameters are required. You can enter any of the other parameters to limit the report.

Effective Date. The report ages unbilled receivables backwards starting from the date you enter here until it reaches the start date, which is determined by the value you enter for the Age Unbilled Receivables From parameter.

Age Receivables From. Enter the date you want Oracle Projects to use when aging unbilled receivables.

Number of days in Bucket 1/2/3. Enter the number of days that you want in each bucket.

Agreement Status by Customer

Use the MGT: Agreement Status by Customer report to review the status of your customer agreements. The report includes an agreement's revenue limit, expiration date, and the amounts allocated, accrued, and invoiced against it.

This report groups all the agreements by customer, then orders them by the value that you enter in the Sort By report parameter. It also includes summaries for each customer and for the entire report.

Selected Parameters

The Sort By parameter is required. You can enter any other parameters to limit the report.

Sort By. Choose the order within each customer in which you want to review the report:

- **Agreement Number.** Ascending alphanumeric order by the agreement number.
- **Amount Not Allocated.** Ascending numeric order, by the funding not allocated.
- **Expiration Date.** Ascending date order by the expiration date of each agreement.
- **Revenue Backlog.** Ascending numeric order by the revenue backlog (amount allocated minus the amount accrued) of each agreement).
- **Revenue Limit.** Ascending numeric order by the revenue limit of each agreement.

Billing Process Flow Reports

These reports show how effectively your organization turns earned revenue into cash. These reports help you identify any bottlenecks in your revenue and invoice processing flow, and they alert you to problems your organization may have in collecting on invoices.

Report Submission

You submit each of these reports from the Submit Request window. The report names include a prefix, either "FLW:" or "MGT:" See: Submitting Requests: page 10 – 2.

Invoice Flow Detail and Invoice Flow Summary

Use the invoice flow reports to review flow information about project invoices through Oracle Projects.

FLW: Invoice Flow Detail. This report groups invoices by invoice status, allowing you to quickly identify where your draft invoices currently are in the invoice processing flow. You can specify a transfer status or a currency amount to report on a subset of invoices.

FLW: Invoice Flow Summary. You can use this report to identify by currency range how many invoices are in each stage of the invoice processing flow. After reviewing this report, if you want to see the specific draft invoices that comprise the invoice summaries, submit the Invoice Flow Detail report and specify the same date range.

Parameters

You must specify a Start Organization or Project Member when you submit these reports. Enter any other parameters to limit the report.

Start Organization. Top organization in the organization hierarchy from which you will report data. If you leave this option blank, the report uses the Start Organization defined in the Define Implementation Options window.

Project Member. To submit the report for only one project member's draft invoices, enter the project member's name. Otherwise, leave this field blank.

Project Role Type. The report includes only draft invoices of projects where the person specified in the Project Member report parameter is

defined with this project role type. If you did not enter a value for the Project Member report parameter, this option has no effect.

Creation Date To/From. The report includes draft invoices created on or after the Creation Date From report parameter, and draft invoices created on or after the Creation Date To report parameter. Both fields are optional. Leave both blank to submit the report for draft invoices regardless of their creation dates.

Additional Parameters for Invoice Flow Detail Report

Include Released Invoices. Enter Yes if you want the report to include draft invoices with a status of Released. Enter No to exclude released invoices from the report.

Include Amount Ranges. Only invoices with amounts in the amount range you specify will be reported. Select All to include draft invoices regardless of invoice amount.

Invoice Status. The report includes only invoices with the status you select.

- **Accepted.** Invoices that have been interfaced to and tied back from Oracle Receivables.
- **All.** All invoices regardless of invoice status.
- **Approved.** Invoices that have been approved.
- **Rejected.** Invoices that have been rejected by Oracle Receivables.
- **Rejected in Transfer.** Invoices that have been rejected during the interface to Oracle Receivables.
- **Transferred.** Invoices that have been successfully interfaced to, but not yet accepted by, Oracle Receivables.
- **Unapproved.** Invoices that have not yet been approved.

Potential Revenue Summary

Use the MGT: Potential Revenue Summary report to identify projects that cannot fully accrue revenue due to a hard funding limit encountered. This report shows you the total potential revenue, the total amount accrued, and the difference between these two values for a project's expenditure items incurred through the date you specify in the report parameters.

When the total available amount of an agreement's funding is insufficient to accrue revenue on all of a project's expenditure items, Oracle Projects accrues as much as possible against the potential revenue. This report alerts you to the amount of additional revenue you could accrue with more funding.

Parameters

You must provide a value for at least one of the following parameters: Project Organization, Project Manager, or Project Number. Enter any other parameters to limit the report.

Accrue Thru Date. The report includes only expenditure items dated on or before the Accrue Thru Date you enter.

Project Organization. To report on expenditure items for only one project organization, enter a project organization. Otherwise leave this field blank.

Project Manager. To report on only one project manager's potential revenue, enter the project manager's name. Otherwise leave this option blank.

Project Number. To report on the potential revenue for only one project, enter the project number. Otherwise, leave this option blank.

Include Closed Projects? Enter Yes if you want the report to include the potential revenue of all projects regardless of project status. Enter No if you want to report to exclude the potential revenue for expenditure items of projects with a Closed status.

Project Billing Status

Use the MGT: Project Billing Status report to review the billing status of your projects, and identify projects that have not yet been billed.

For each project listed, this report displays the days since the last billing date, the date of the last billing, the next scheduled billing date, the amount of any pending invoices, and the amount of unbilled receivables. The last page of the report defines the columns in this report.

Parameters

You must specify a Start Organization or a Project Member when you submit this report. You can enter any other parameters to limit the report.

Start Organization. Top organization in the organization hierarchy from which you will report invoices associated with projects with a project organization. If you leave this option blank, the report uses the Start Organization defined in the Define Implementation Options window.

Project Member. To submit the report for only one project member's projects, enter the project member's name. Otherwise, leave this field blank.

Project Role Type. The report includes only projects where the person specified in the Project Member report parameter is defined with this project role type. If you did not enter a value for the Project Member report parameter, this option has no effect.

Project Number. To report on the potential revenue for only one project, enter the project number. Otherwise, leave this option blank.

Days Since Last Billing. The report includes projects only when the number of elapsed days since the latest invoicing for the project is greater than or equal to the number you enter here. Leave this option blank to include all projects regardless of the last invoice date.

Only Report Never Billed. Enter Yes to include only projects that have never been invoiced. Enter No to include projects regardless of invoicing status.

Billing Method. To report on projects with one particular billing method, enter the billing method. Leave this option blank to include projects regardless of billing method.

Thru Next Bill Date. The report includes projects with next billing dates that are on or after the date you enter here. Leave this option blank to include projects regardless of their next billing dates.

Revenue Flow Detail

Use the FLW: Revenue Flow Detail report to review the flow of draft revenue through Oracle Projects. This report shows all draft revenues generated within a specified PA Period Date range. The draft revenues

are sorted by their transfer statuses, thereby allowing you to quickly identify where revenue currently is in the revenue processing flow. If a draft revenue is rejected by the revenue transfer or tieback process, this report displays the reason for the rejection. It also provides action hints to help you resolve any problems and continue the flow of revenue through the system.

Parameters

The From PA Date parameter and the To PA Date parameter are required. You can enter any other parameters to limit the report.

From/To PA Date. Enter the PA Period date range for which you want to submit the report.

Revenue Transfer Status. To limit the report to one particular transfer status, enter the status. Otherwise, leave this field blank.

- **Accepted.** Transferred to Oracle General Ledger.
- **Pending.** Pending Interface to Oracle General Ledger.
- **Rejected.** Rejected by or rejected in interface to Oracle General Ledger.

Include Accepted Revenue. To include in the report revenues with a transfer status of Accepted, enter Yes. Enter No to exclude Accepted revenues.

Interface Audit Reports

Use these reports to verify that your interface of information to another Oracle product was complete and accurate.

Report Submission

You submit each of these reports from the Submit Request window. Include the prefix "AUD:" when you enter the report name. See: Submitting Requests: page 10 – 2.

GL Cost Interface Audit

Use the AUD: GL Cost Interface Audit report to review labor and usage cost distribution lines interfaced from Oracle Projects to Oracle General Ledger. This report displays items by the expense account number. Information about the item and the liability account are also displayed.

Amounts on this report are shown in the functional currency.

Parameters

All parameters for this report are optional. However, entering no parameters or specifying only the interface date range can result in poor performance. Specifying the GL account range, the GL period name range, or the journal entry batch name (or any combination of these parameters) will significantly improve the performance of this report.

From/To Account. Enter the range of GL account numbers to which you interfaced the cost distribution lines of timecards and usage logs that you want to appear in the report.

From/To Period. Enter the names of the starting and ending GL periods within which you want the report to select cost distribution lines of timecards and usage logs.

From/To Interface Date. Enter the date range within which the timecard and usage log cost distribution lines you want to include in the report were interfaced to Oracle General Ledger.

Journal Entry Batch Name. Enter the name of the journal batch that you created in Oracle General Ledger for which you want to the report to select cost distribution lines of timecards and usage logs.

Cross Charge GL Audit

Use the AUD: Cross Charge GL Audit report to review cross charge distribution lines interfaced from Oracle Projects to Oracle General Ledger. This report displays items by the debit account number. Information about the item and the credit account are also displayed.

Amounts on this report are shown in the functional currency.

Parameters

All parameters for this report are optional. However, entering no parameters or specifying only the interface date range can result in poor performance. Specifying the GL account range, the GL period name range, or the journal entry batch name (or any combination of these parameters) will significantly improve the performance of this report.

From/To Account. Enter the range of GL account numbers to which you interfaced the distribution lines of cross-charged transactions that you want to appear in the report.

From/To Period. Enter the names of the starting and ending GL periods within which you want the report to select distribution lines of cross-charged transactions.

From/To Interface Date. Enter the date range within which the cross charge distribution lines you want to include in the report were interfaced to Oracle General Ledger.

Journal Entry Batch Name. Enter the name of the journal batch that you created in Oracle General Ledger for which you want the report to select distribution lines of cross charged transactions.

GL Revenue Interface Audit

Use the AUD: GL Revenue Interface Audit report to review a listing of the revenue distribution lines interfaced from Oracle Projects to Oracle General Ledger. The revenue distribution lines are reported by revenue account and by project. The project revenue unbilled receivable and unearned revenue amounts and accounts are also displayed.

Parameters

All parameters for this report are optional. However, entering no parameters or specifying only the interface date range can result in

poor performance. Specifying the GL account range, the GL period name range, or the journal entry batch name (or any combination of these parameters) will significantly improve the performance of this report.

From/To Account. Enter the range of GL account numbers to which you interfaced the revenue distribution lines that you want to appear in the report.

From/To Period. Enter the names of the starting and ending GL periods within which you want the report to select revenue distribution lines.

From/To Interface Date. Enter the date range within which the revenue distribution lines you want to include in the report were interfaced to Oracle General Ledger.

Journal Entry Batch Name. Enter the name of the journal batch that you created in Oracle General Ledger for which you want to the report to select revenue distribution lines.

Project Subledger Audit Reports

The Project Subledger Audit Reports print cost distribution lines related to projects. The reports enable you to drill down from a GL account balance in the trial balance to the individual project-related transactions.

Amounts in these reports are shown in the functional currency.

Report Submission

You submit each of these reports from the Submit Request window. Include the prefix "AUD:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Project Subledger Summary

Because the number of transactions that comprise a GL account balance is usually very large, it is preferable to print a summary report of the transactions and then print a detailed report to narrow down the range of transactions that need to be examined. The Project Subledger Summary report prints a summary of cost distribution lines by project.

The transaction sources are classified broadly as Manufacturing and Non-manufacturing. This is done to enable the user to see manufacturing costs separate from non-manufacturing costs. Manufacturing transactions include imported items using the following transaction sources:

- Inventory
- Inventory Misc.
- Work in Process

The report prints subtotals for GL Account, Project Number, Manufacturing-Related, and Expenditure Type Class.

Parameters

From/To GL Account. Select a GL account or a range of accounts.

From/To Project. Select a project or range of projects.

From/To GL Date. Enter the date range within which you want the report to select cost distribution lines of expense reports.

Project Subledger Detail by Project

This report shows cost distribution lines for a single project by task.

Parameters

From/To GL Account. Select a GL account or a range of accounts.

From/To GL Date. Enter the date range within which you want the report to select cost distribution lines of expense reports.

Project Number. Select a project.

From/To Task Number. Select a task or range of tasks.

Project Subledger Detail by Expenditure Type

This report shows project subledger detail across projects for one expenditure type.

Parameters

From/To GL Account. Select a GL account or a range of accounts.

From/To GL Date. Enter the date range within which you want the report to select cost distribution lines of expense reports.

Expenditure Type. Select an expenditure type.

From/To Project. Select a project or range of projects.

Period Close Exception Reports

Use the period close exception reports to identify transactions that have not been fully processed, and that would prevent you from closing the PA period. These reports are commonly used when you are preparing to close a PA period. When the exceptions are corrected, the PA period can be closed.

Report Submission

You can submit each of these reports from the Submit Request window. Include the prefix "EXC:" when you enter the report name. See: Submitting Requests: page 10 – 2.

See Also

PA Periods: page 17 – 69

Transaction Exception Details

The EXC: Transaction Exception Details report lists all transactions that have not been fully processed. You can use this report to identify corrections that you need to make before attempting to close a PA period.

The report is sorted by PA period. Within each PA period, the report is sorted by exception category (see the list of report parameters below), and then by exception reason. For each group of transactions under an exception reason, the report lists the total amount and total number of items.

Costing and cross charge exceptions are shown in the functional and transaction currencies. Revenue exceptions are shown in the project currency.

The table below shows the information that is listed for transactions in each exception category:

Exception Category	Information Listed for Each Transaction
AP Invoice Exceptions	invoice number, invoice date, supplier number, supplier, line number, posted (yes or no), project, task, expenditure type, and amount
Costing Exceptions	supplier or employee, project, task, expenditure type, expenditure item date, expenditure item ending date, expenditure group name, and amount
Revenue Exceptions	project, draft revenue number, and amount
Cross Charge Exceptions	receiver operating unit, project, task, employee, supplier, non-labor resource organization, expenditure organization, date, type

Table 10 – 1 (Page 1 of 1)

Parameters

From PA Period...To PA Period. Enter a range of PA periods for which you want the report to print exceptions. These parameters are required, and your entries must be valid PA periods.

Exception Category. If you want the report to print just one category of exceptions, you can select an exception category. If you leave this parameter blank, the report includes all categories. The categories are:

- **Accounts Payable Invoice Exceptions.** Includes supplier invoices that have not been interfaced from Payables to Oracle Projects.
- **Costing Exceptions.** Includes cost distribution lines that have not been interfaced to Oracle General Ledger.
- **Revenue Exceptions.** Includes revenue distribution lines that have not been interfaced to Oracle General Ledger.
- **Cross Charge Exceptions.** Includes cross charge distribution lines that have not been interfaced to Oracle General Ledger.

Exception Reason. If you selected an exception category, you can also select an exception reason. The list of values displays exception reasons that are valid for the category you chose. If you leave this parameter blank, the report includes all exception reasons.

Transaction Exception Summary

The EXC: Transaction Exception Summary report lists a summary of transactions that have not been fully processed. This report also lists the action required to correct the exceptions.

The report is sorted by PA period. Within each PA period, the report is sorted by exception category, and then by exception reason. For each exception reason, the report lists the total amount, the total number of items, and a description of the corrective action required to process the transactions.

Costing and cross charge exceptions are shown in the functional and transaction currencies. Revenue exceptions are shown in the project currency.

Parameters

From PA Period...To PA Period. Enter a range of PA periods for which you want the report to print exceptions. These parameters are required, and your entries must be valid PA periods.

Summarization Period Exceptions

When you change the PA Reporting Period, Oracle Projects displays a warning message if the change would affect the summary amounts reported on any projects. This report lists projects that will be affected by changing the reporting period.

The report lists projects by the following categories:

- Projects that have been summarized beyond the reporting period parameter.
- Projects that have not been summarized up to the reporting period parameter.
- Projects that have never been summarized.

For example, suppose the PA Reporting Period is week 3–JUL–98, and you want to change the PA Reporting Period to week 2–JUL–98. When you make the change, the PA Periods window displays a warning message indicating that some projects would be affected by the change. This report enables you to see which projects would be affected.

The summarization period exception report is based on the view `PA_ACCUM_PERIOD_EXCEPTIONS_V`.

Report Submission

You can submit this report from the Submit Request window. Include the prefix "EXC:" when you enter the report name. See: Submitting Requests: page 10 – 2.

Parameters

Reporting PA Period. Enter the PA Period you want to set as the new current reporting period.

See Also

Setting the PA Reporting Period: page 17 – 73

CHAPTER

11

Processes

This chapter describes the processes you can submit in Oracle Projects.

List of Processes

The following sections describe the processes you can submit in Oracle Projects.

The processes appear in alphabetical order in the chapter.

Distribution Processes

Create and Distribute Burden Transactions: page 11 – 10

Distribute Borrowed and Lent Amounts: 11 – 14

Distribute Expense Report Costs: page 11 – 16

Distribute Labor Costs: page 11 – 18

Distribute Total Burdened Cost: page 11 – 22

Distribute Usage and Miscellaneous Costs: page 11 – 23

Distribute Supplier Invoice Adjustment Costs: page 11 – 20

Generation Processes

Generate Allocations Transactions: page 11 – 25

Generate Asset Lines: page 11 – 27

Generate Draft Invoices: page 11 – 30

Generate Draft Revenue: page 11 – 33

Generate Intercompany Invoices: page 11 – 36

Release Allocations Transactions: page 11 – 63

Interface Processes

Interface Assets: page 11 – 38

Interface Cross Charge Distribution to General Ledger: 11 – 40

Interface Expense Reports from Payables: page 11 – 42

Interface Expense Reports to Payables: page 11 – 44

Interface Intercompany Invoices to Receivables: page 11 – 46

Interface Invoices to Receivables: page 11 – 48

Interface Labor Costs to General Ledger: page 11 – 50

Interface Revenue to General Ledger: page 11 – 52

Interface Supplier Invoice Adjustment Costs to Payables: page 11 – 54

Interface Supplier Invoices from Payables: page 11 – 55

Interface Total Burdened Cost to General Ledger: page 11 – 57

Interface Usage and Miscellaneous Costs to General Ledger: page 11 – 58

Summarization and Update Processes

Process Mass Update Batches: page 11 – 60

Refresh Project Summary Amounts: page 11 – 61

Refresh Transaction Summary Amounts: page 11 – 62

Update Project Summary Amounts: page 11 – 76

Tieback Processes

Tieback Cross Charge Distributions from General Ledger: page 11 – 65

Tieback Expense Reports from Payables: page 11 – 67

Tieback Invoices from Receivables: page 11 – 69

Tieback Labor Costs from General Ledger: page 11 – 70

Tieback Revenue from General Ledger: page 11 – 71

Tieback Total Burdened Cost from General Ledger: page 11 – 72

Tieback Usage Costs from General Ledger: page 11 – 73

Transaction Import Process

Transaction Import: page 11 – 74

Other Processes

Add New Organization Compiled Burden Multipliers: page 11 – 7

Compile All Burden Schedule Revisions: page 11 – 8

Compute Forecast Labor Revenue: page 11 – 9

Create Invoice Organization Transaction Types: page 11 – 12

Delete Draft Revenue of a Single Project: page 11 – 13

Submitting Processes

Oracle Projects processes accomplish a variety of tasks, including the following:

- Compute the costs of expenditures
- Generate invoices and revenue
- Interface transactions to other modules
- Update the status of transactions that have been interfaced to other modules

You can run a single process (see: Submitting Requests: page 10 – 2), or submit a streamline request to run several processes and reports as a group (see: Submitting Streamline Processes: page 11 – 6).

Entering a Project Number Range Parameter

From Project Number: Enter the lowest project number that you want to select. If you leave the parameter blank, the process selects all eligible projects whose numbers are less than the project number entered in the To Project Number parameter.

To Project Number: Enter the highest project number that you want to select. If you leave the parameter blank, the process selects all eligible projects whose numbers are greater than the project number entered in the From Project Number parameter.

To select all eligible projects, leave both parameters blank.

No List of Values for Project Number Range Parameter

The system does not display a list of values or validate the numbers you enter.

This allows you to enter a range of project numbers that will accommodate the needs of the report or process. For example, you can submit a process that will include project 000000 through project 999999, whether or not projects currently exist that have those project numbers. If the process is resubmitted automatically, it will include the full range of projects without the need to manually change the project number range.

Submitting Streamline Processes

Streamline processes submit and monitor a series of processes that must be run sequentially to complete a function. For example, distributing and interfacing labor costs to Oracle General Ledger requires that you submit several processes. Instead, you can run a single process by running PRC: Submit Interface Streamline Processes and selecting the streamline option DXL: Distribute and Interface Labor Costs to GL. The streamline process then submits and monitors the progress of each separate process in sequence. When all processes required to complete a function are finished, the streamline process itself finishes.

Oracle Projects provides two types of streamline processes:

- PRC: Submit Interface Streamline Processes combines processes to distribute, interface, and tie back cost, invoice or revenue between Oracle Projects and other Oracle applications.
- PRC: Submit Project Streamline Processes combines processes to distribute labor, usage, and supplier invoice adjustments, generate revenue, and generate invoice processes for a single project. Generally, you submit a project streamline request after you make expenditure or invoice adjustments.

► To submit a streamline process:

1. Navigate to the Submit Request window.
2. For Name, choose PRC: Submit Interface Streamline Processes or PRC: Submit Project Streamline Processes.
3. Choose the Streamline Option(s) you want to submit.

You must use the same report mode, either summarized or detailed, to interface expense report costs to Payables and to tieback the same expense reports. See: Interface Expense Reports to Oracle Payables: page 13 – 26.
4. *(Optional)* Enter the Reschedule Interval, Reschedule Time of Day, and Stop Rescheduling Date.

You can specify the rescheduling parameters to configure the process to run automatically, according to a defined schedule.
5. Choose whether you want to Adjust Dates.
6. Choose Submit. Oracle Projects submits your streamline request.

The Streamline Processing Report lists the name, the concurrent request ID, and the completion status of each child process monitored by the streamline process.

Add New Organization Compiled Burden Multipliers

This process adds burden multipliers to burden schedules for an organization when you add a new organization to your organization hierarchy. If you do not add the organization to a specific schedule revision, this process compiles rates for the organization in all burden schedule revisions using the rates of the parent organization as defined in the organization hierarchy. A burden schedule revision must already be successfully compiled for the organization rate to be added.

You must run this process after you create the organization and before you charge transactions using this organization as the expenditure organization.

Process Submission

You submit the PRC: Add New Organization Compiled Burden Multipliers process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Reports

This process does not have any output reports. However, the concurrent request status window provides information about the results of the process.

Compile All Burden Schedule Revisions

This process compiles all burden schedule revisions that are not compiled and are not on hold. We recommend that you run this process overnight, as you may have many uncompiled schedule revisions that need to be processed.

Process Submission

You submit the PRC: Compile All Burden Schedule Revisions process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Reports

The following reports show you the results of this process:

- **Burden Schedule Mass Compilation Report.** Lists all burden schedule revisions that were successfully compiled during the process.
- **Burden Schedule Mass Compilation Exception Report.** Lists any burden schedule revisions that failed the compilation process.

Compute Forecast Labor Revenue

This process calculates the potential revenue of labor expenditure items based on established bill rates and markups. The expenditure items that the process selects are billable labor expenditure items charged to contract projects that have not yet been processed by the Generate Draft Revenue process. The items do not have to be approved to be processed for forecast revenue.

Process Submission

You submit the PRC: Compute Forecast Labor Revenue process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Process Parameters

Project Number. To limit the process to one project, enter the project. Otherwise, leave this field blank.

Forecast Through Date. To limit the process to expenditure items dated on or before a certain date, enter the date. Otherwise, leave this field blank.

Reports

The following reports show you the results of this process:

- **The Forecast Revenue Computation Report.** Lists the results of the Compute Forecast Revenue process. In this report, you see the projects selected for forecast revenue calculation, the total forecast revenue amount, and the expenditure item dates through which forecast revenue was calculated for each project.
- **The Forecast Labor Revenue Computation Exception Report.** Lists the expenditure items for which the Compute Forecast Revenue process could not forecast revenue because a bill rate or markup could not be found for the items.

Create and Distribute Burden Transactions

This process summarizes the burden costs and creates the expenditure items for the burden transactions. The burden transactions are created on different projects depending on the method you use to store burden costs.

If you store burden costs as separate, summarized burden transactions, the burden transactions are created on the same project that incurred the costs. If you choose to store burden costs as a value along with raw cost on the expenditure item on the project that incurred the transactions, the burden transactions are created on the collection project and task used for collecting burden transactions intended for accounting by burden cost components only.

The burden transactions created by this process can be billable or non-billable, depending on the Transaction Control logic you have entered. See: Transaction Controls: page 4 – 62.

The process also computes the costs and determines the GL account to which to post the cost for the burden transactions that it creates.

Process Submission

You submit the PRC: Create and Distribute Burden Transactions process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Reports

The following reports show you the results of this process:

- **The Distribute Burden Transactions Report.** Lists all items that were successfully cost distributed. For each item, this report displays the resource and expenditure type that was used, the date on which the resource was used, the project and task to which the item is charged, the quantity of the usage utilized (measured by the units of the expenditure type), the cost rate of the resource, and total cost.
- **The Distribute Burden Transactions Exception Report.** Lists all items that could not be processed by the Create and Distribute Burden Transactions process. This report lists the rejection reason for each of the items that fails cost distribution.

You can also review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder

menu to display Cost Distr. Rejection. See: Viewing
Expenditure Items: page 4 – 47.

Create Invoice Organization Transaction Types Process

If you use decentralized invoicing, run this process after you specify an invoice processing organization level. The process copies the predefined transaction types to generate unique transaction types for each organization at the invoice processing organization level.

Process Submission

You submit the IMP: Create Invoice Organization Transaction Types process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Delete Draft Revenue of a Single Project

This process deletes draft revenue for a single contract project.

When you delete draft revenue for a project that uses cost-to-cost revenue accrual or invoice generation, the corresponding invoices will also be deleted.

Process Submission

You submit the PRC: Delete Draft Revenue of a Single Project process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Process Parameter

Project Number. Number of the project for which you want to run the process.

Reports

None.

You can also submit the reports without running the process. Submit AUD: Borrowed and Lent Amounts Distribution report with a single request ID or a range of requests as input parameters.

Distribute Borrowed and Lent Amounts

The process distributes all transactions identified for Borrowed and Lent accounting. Run it in the provider operating unit.

Process Submission

To submit the PRC: Distribute Borrowed and Lent Amounts process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXC: Distribute and Interface Borrowed and Lent Amounts to GL streamline option.

Parameters

Receiver Operating Unit. Enter a receiver operating unit, or leave blank to select all receiver operating units.

Expenditure Batch. Select an expenditure batch, or leave blank to process all unprocessed expenditure batches.

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Process Through Date. Enter a date to select all items with expenditure item dates up to and including the specified date. The default is the system date.

Reports

The following reports show the results of the process:

- **Distribute Borrowed and Lent Amounts.** Lists the transactions successfully processed for Borrowed and Lent accounting grouped by Receiver Operating Unit and ordered by Project, Task, Item date and Expenditure Type. The report also lists totals for the transfer price in the functional currency and a count of the number of items processed.
- **Distribute Borrowed and Lent Amounts Exceptions.** Lists the transactions that failed borrowed and lent distribution and the rejection reason for each.

You can also submit the reports without running the process.
Submit AUD: Borrowed and Lent Amounts Distribution report
with a single request ID or a range of requests as input
parameters.

Distribute Expense Report Costs

The process computes the costs of expense report expenditure items, including adjustments, and determines the account to which to post the cost. The process also identifies if a transaction is cross-charged and determines the processing it may need. It groups expenditure items into batches of expense reports so that they can be interfaced to Oracle Payables.

This process is a prerequisite for the generation of revenue and invoices for expense report expenditure items.

Process Submission

To submit the PRC: Distribute Expense Report Costs process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the following streamline options;

- DTE: Distribute and Transfer Expense Report Costs to AP
- DXES: Distribute/Interface Exp Rpt Costs to AP (Summary rpt)
- DXEU: Distribute/Interface Exp Rpt Costs to AP (detail rpt)

Process Parameters

To limit the process to certain expense reports, specify any of the following parameters: Expenditure Batch, Employee Name, Through Week Ending Date.

Reports

The following reports show you the results of this process:

- **Batch Expense Reports Report.** Lists the results of the Distribute Expense Report Costs process. This report prints all of the expense reports that were successfully cost distributed by the process. It displays the total number of expense reports processed in the batch, the employees who incurred the expenses, and the total amount of the expense report costs.

Currency amounts are shown in the functional and reimbursement currencies.

- **Batch Expense Reports Exception Report.** Lists all expense reports that the process could not process. If one expenditure item of an expense report cannot be processed, all expenditure items for that expense report are not processed. This report lists the rejection reason for each of the expense report items that fails cost distribution. Examples of these failure or rejection reasons include incomplete AutoAccounting rules, missing cost rates, or invalid GL account.

Currency amounts are shown in the functional currency.

You can also review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder menu to display Cost Distr. Rejection. See: Viewing Expenditure Items: page 4 – 47.

Distribute Labor Costs

The process computes the labor costs for timecard hours and determines the GL account to which to post the cost. The process also identifies if a transaction is cross-charged and determines the processing it may need.

This process is a required prerequisite for the generation of revenue and invoices for timecard items. For more information, see: Distributing Labor Costs: page 5 – 8.

Process Submission

To submit the PRC: Distribute Labor Costs process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXL: Distribute and Interface Labor Costs to GL streamline option.

Process Parameters

To limit the process to a particular project number, employee, or week ending date, enter one or more parameters.

Rescheduling Parameters

Use the rescheduling parameters to configure a process to run automatically, according to a defined schedule. You can specify rescheduling parameters when you submit the process from the Submit Request window.

Reports

The following reports show the results of this process:

- **The Labor Cost Report (Straight-time).** Lists the costs for all of the straight time labor hours successfully processed by the Distribute Labor Costs process. For each labor item, this report lists the employee who reported the labor hours, the expenditure and expenditure item dates, the project and task to which these hours were charged, and the number of hours charged.
- **The Overtime Labor Calculations Report.** Lists all the employees for which the Overtime Calculation extension calculated new overtime items. This report is displayed only if

you use the Overtime Calculation extension to automatically calculate overtime. If you use manual overtime entry, this report is not printed.

- **The Labor Cost Exception Report (Straight-time).** Lists all straight-time labor expenditure items that could not be processed by the Distribute Labor Costs process. This report lists the rejection reason for each of the expenditure items that failed cost distribution.

This report displays each employee for which new overtime items were created, the week in which the overtime was created, the employee's compensation rule used to calculate overtime for the employee, and the number of overtime hours for the different types of overtime. See: Overtime Calculation Extension: page 18 – 24.

- **The Labor Cost Report (Overtime).** Lists the same information as the Labor Cost Report (Straight-time). The difference is that this report displays only overtime items.

You can also review rejection reasons for straight-time and overtime items from the Expenditure Items window by using the Show Field option in the Folder menu to display Cost Distr. Rejection. See: Viewing Expenditure Items: page 4 – 47.

- **The Labor Cost Exception Report (Overtime).** Lists the same information as the Labor Cost Exception Report (Straight-time). The difference is that this report only shows overtime expenditure items that could not be processed normally by the Distribute Labor Costs process. This report lists the rejection reason for each of the expenditure items that fails cost distribution.

Distribute Supplier Invoice Adjustment Costs

Supplier invoice adjustments are supplier invoice items that have been interfaced from Oracle Payables into Oracle Projects, and subsequently have been transferred to another project, task, or both in Oracle Projects.

This process determines the GL account in which to post supplier invoice adjustment costs.

The transfers may result in posting costs to different GL accounts. The cost amount does not change for these items in Oracle Projects, so any cost changes must be done in Payables.

This process is a required prerequisite for the generation of revenue and invoices for adjusted supplier invoice expenditure items.

Process Submission

To submit the PRC: Distribute Supplier Invoice Adjustment Costs process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXA: Distribute / Interface Supplier Invoice Adj. to GL streamline option.

Process Parameters

To limit the report to one project, and /or expenditure ending date, enter one or both parameters. If you leave the Through Date parameter blank, the process selects all eligible adjusted supplier invoice items for cost distribution.

Reports

The following reports show you the results of this process:

- **Supplier Invoice Adjustment Cost Report.** Lists all adjusted supplier invoice expenditure items successfully cost distributed.
- **Supplier Invoice Adjustment Cost Exception Report.** Lists any adjusted supplier invoice expenditure items that could not be processed by this process and lists the rejection reason for each item.

You can also review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder

menu to display Cost Distr. Rejection. See: Viewing
Expenditure Items: page 4 – 47.

See Also

Overtime Calculation Extension: page 19 – 50

Distribute Total Burdened Cost

This process creates total burdened cost distribution lines for all transactions on a burdened project. The process also identifies and processes any cross-charged transactions. The process creates credit and debit distribution lines for burdened costs, assuming that you have implemented the AutoAccounting functions to create burdened cost distribution lines.

After you run this process, run the PRC: Interface Total Burdened Costs to General Ledger process to post the costs to Oracle General Ledger.

Process Submission

To submit the PRC: Distribute Total Burdened Cost process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXB: Distribute and Interface Total Burdened Costs to GL streamline option.

Process Parameters

To limit the report to one expenditure batch, project, or expenditure ending date, enter one or more parameters.

Output Reports

Two output reports show you the results of this process:

- **Burdened Cost Report.** Lists all of the expenditure items successfully distributed by this process. For each item, this report displays the expenditure type class, expenditure type, project and task, as well as other useful information.
- **Burdened Cost Exception Report.** Lists all expenditure items that could not be processed by the process. This report lists the rejection reason for each of the expenditure items that fails burdened cost distribution.

You can also review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder menu to display Cost Distr. Rejection. See: Viewing Expenditure Items: page 4 – 47.

Distribute Usage and Miscellaneous Costs

The process computes the costs and determines the GL account to which to post the cost for expenditure items with the following expenditure type classes:

- Usages
- Burden Transactions
- Miscellaneous Transactions
- Inventory and WIP transactions not already costed or accounted

The process also identifies if a transaction is cross-charged and determines the processing it may need.

The Distribute Usage and Miscellaneous Costs process is a prerequisite for the generation of revenue and invoices for assets usage expenditure items and miscellaneous transactions.

Process Submission

To submit the PRC:Distribute Usage and Miscellaneous Costs process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXU: Distribute/Interface Usage and Misc. Costs to GL streamline option.

Process Parameters

To limit the report to one expenditure batch, project, or expenditure ending date, enter one or more parameters.

Output Reports

Two output reports show you the results of this process:

- **The Usage and Miscellaneous Cost Report.** Lists all expenditure items that were successfully cost distributed. For each item, this report displays the resource and expenditure type that was used, the date on which the resource was used, the project and task to which the item is charged, the quantity of the usage utilized (measured by the units of the expenditure type), the cost rate of the resource, and total cost.

- **The Usage and Miscellaneous Cost Exception Report.** Lists all usage, burden transaction, and miscellaneous transaction expenditure items that could not be processed by the Distribute Usage and Miscellaneous Costs process. Also lists Inventory and WIP transactions not already costed or accounted that could not be processed by the Distribute Usage and Miscellaneous Costs process. This report lists the rejection reason for each of the expenditure items that fails cost distribution.

You can also review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder menu to display Cost Distr. Rejection. See: Viewing Expenditure Items: page 4 – 47.

Generate Allocations Transactions

The PRC: Generate Allocations Transactions process creates a draft allocation batch, using the allocation rule that you specify. (An *allocation run* is the result of the Generate Allocation Transactions process. A *draft* is a trial allocation run that you can review and evaluate. An *allocation rule* is a set of specifications that describes how you want to allocate amounts to specified projects.)

As the system executes the process, the run status changes. You can use the Review Allocation Runs window to carry out certain activities, depending on the run status. For more information about the run status and the Generate Allocation Transactions process, see *Generating the Allocation Transactions*: page 6 – 19.

After you create a draft allocation batch, you release it to allocate the transactions to the specified targets. See: *Release Allocation Transactions*: page 11 – 63.

Prerequisites

Before you can carry out the PRC: Generate Allocations Transactions process, you must create an allocation rule. See: *Defining Allocation Rules*: page 6 – 5.

You cannot run the Generate Allocations Transactions process if a draft allocation exists for the specified rule. Either delete or release the draft allocation before generating a new draft.

Although you can run this process at any time, it is a good practice to carry out the following tasks for the expenditures you want to allocate:

- Interface all costs to and from other applications and systems
- Distribute all costs for the source projects
- *(Required if GL balances are used as sources)* Post general ledger balances
- Run the Update Project Summary Amounts process for the source projects

Process Submission

Submit the PRC: Generate Allocation Transactions process from the Submit Request window. See: *Submitting Requests*: page 10 – 2.

Parameters

Rule Name. Enter the name of the allocation rule you want to use in this allocation run.

Period Name. Select the run period for which you want to generate allocation transactions.

Expenditure Item Date. Enter a date to be used when the system generates the transaction. The default is the system date.

Reports

The following report shows the results of the process (regardless of whether the process creates a failed or successful allocation run):

- **Allocations Run Report.** The report lists exceptions, the transactions generated by the rule, amounts allocated to each target project, totals, and offsets, if any. For incremental allocations, the report also lists current and previous amounts.

Troubleshooting the Process

See: Troubleshooting Allocation Runs: page 6 – 50.

See Also

Release Allocation Transactions: page 11 – 63

Generate Asset Lines

The PRC: Generate Asset Lines process generates summary asset lines for a single project or a range of projects.

About Unassigned Asset Lines

The Generate Asset Lines process attempts to assign an asset to each line it generates. If the process is unable to assign an asset to a generated line (perhaps because a task is assigned to multiple assets), Oracle Projects lists UNASSIGNED in the Asset Name column of the report. You can then assign an asset to the line manually.

To minimize the number of unassigned asset lines, try the following:

- Use the Asset Assignment extension to explicitly designate the assets you want to assign to specific tasks. See: Asset Assignment Extension: page 19 – 144.
- After you manually assign an asset to a line, run the Interface Assets process before you run Generate Asset Lines again. If you do not run Interface Assets first, your assignments will be lost when you run Generate Asset Lines, and the lines will again be listed as UNASSIGNED. See: Interface Assets: page 11 – 38.

Overriding Asset Lines

You can use the Asset Assignment extension to override existing asset assignments. See: Asset Assignment Extension: page 19 – 144.

Prerequisites

Before you run the Generate Asset Lines process:

- ☐ Cost the transactions by running the following processes:
 - Distribute Labor Costs
 - Distribute Expense Report Costs
 - Distribute Usage and Miscellaneous Costs
 - Distribute Supplier Invoice Adjustments
 - Interface Supplier Invoices from Payables
 - Distribute Total Burdened Costs (required if you are capitalizing burdened CIP costs)

You do not need to interface these costs to Oracle General Ledger before you generate asset lines.

- ❑ Run the Update Project Summary Amounts process so you can see the total expensed and CIP amounts in the Capital Projects Summary window.

Process Submission

To submit the process for all projects, submit the PRC: Generate Asset Lines for a Range of Projects process from the Submit Request window.

To submit the process for one project, submit the PRC: Generate Asset Lines for a Single Project process from the Submit Request window.

See: Submitting Requests: page 10 – 2.

Process Parameters

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Project Number. If you are using the Generate Asset Lines for a Single Project process, enter a project number.

Date Placed in Service Through. Enter the In Service Through date. Asset lines will be generated from assets with an actual Date Placed in Service before and including this date only.

PA Through Date. Enter the last day of the PA period through which you want the costs to be considered for capitalization.

If you enter a date that falls within the PA period, the process uses the period ending date of the *preceding* period. If the date you enter is the end date of a period, the process uses the end date of that period. For example:

<u>Period</u>	<u>Start Date</u>	<u>End Date</u>	<u>You enter...</u>	<u>The process uses...</u>
P1	07-Jun-99	13-Jun-99	19-Jun-99	13-Jun-99
P2	14-Jun-99	20-Jun-99	20-Jun-99	20-Jun-99

Include Common Tasks? Enter Yes to generate asset lines for costs associated with tasks with a Common Costs grouping level type. See: Grouping Level Types: page 7 – 18.

Reports

The Generate Asset Lines process automatically runs the Generate Asset Lines Report, which includes the sections Generate Asset Lines Exceptions, Reverse and Interface Exceptions, and Generate Asset Lines.

Some lines may display UNASSIGNED in the Asset Names column. For more information, see: About Unassigned Lines: page 11 – 27.

These reports show amounts in the project currency.

- **The Generate Asset Lines Exception Report.** This section only prints if you run the Generate Asset Lines for a single project. This section shows asset lines that were not created for a project, and the reason each one was rejected. Rejection reasons include the following:
 - The project has no asset assignments
 - The project has no assets with valid in service dates
 - The project has no eligible capitalizable costs to process
- **Reverse and Interface Exceptions.** The Reverse and Interface Exceptions Report shows reversing lines that were rejected during the Assets Interface process.
- **Generate Asset Lines.** This section displays the following:
 - The sum and count of reversed lines
 - The sum and count of generated lines
 - A subtotal for each project
 - The overall total for the generation run

See Also

Placing an Asset in Service: page 7 – 22

Interface Assets: page 11 – 38

Asset Assignment Extension: page 19 – 144

Generate Draft Invoices

This process creates invoices from expenditure items and events. In addition to regular invoice generation, this process deletes unreleased draft invoices, and creates invoice write-offs, credit memos, and invoice cancellations.

Automatic Events

An automatic event created by billing extensions after an adjustment must include the number of the original event. Without this information, Receivables cannot autoinvoice the automatic event. If Oracle Projects does not find this value during the invoice generation process, it will display the following message in the log file: "Cannot find a proper inv line credited for this adjusted event." See: Inserting Events: page 19 – 87.

Cost-to-Cost Invoice Generation

If your project uses the cost-to-cost invoice generation method, you must include burdened costs in your cost budget and revenue amounts in your revenue budget. Without these amounts, Oracle Projects cannot successfully generate invoices for your project.

Process Submission

To submit the process for all projects, submit the PRC: Generate Draft Invoices for a Range of Projects process from the Submit Request window.

To submit the process for one project, submit the PRC: Generate Draft Invoices for a Single Project process from the Submit Request window.

See Submitting Requests: page 10 – 2.

Process Parameters

Bill Through Date. The Generate Draft Invoices process creates invoices using expenditure items and events dated on or before the date you enter here. If you leave this parameter blank, the process uses the current date as the bill through date.

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter page 11 – 5.

Project Number. Enter the number of the project for which you want to submit the process.

Rescheduling Parameters

Rescheduling parameters allow you to configure the process to run automatically, according to a defined schedule. You can specify rescheduling parameters when you submit this process for a range of projects from the Request window.

Reports

The following reports show you the results of the Generate Draft Invoices process: The last three reports print only when you submit the process for a single project.

- **The Draft Invoice Generation Report.** Prints each draft invoice that is successfully created by the process. For each draft invoice, this report displays the project for which the invoice was created, its draft invoice number, the number of the draft invoice, if any, that it credits, the customer number, name, and agreement that funds it, the bill through date through used to create the invoice, and the total amount of the invoice. This report also tells you the next action to take in the invoicing flow process for each draft invoice.
- **The Draft Invoice Generation Exception Report.** Lists any of the project draft invoices that the process was unable to successfully create during its processing. For each rejected draft invoice, the Draft Invoice Generation Exception Report displays the rejection reason.
- **The Draft Invoice Generation Eligibility Report.** This report displays information about the project for which the process was submitted. This information includes the project's revenue accrual and billing method, the project start date, and the date of its last invoice generation. If the Generate Draft Invoices process cannot create a new draft invoice, the reason for the generation failure appears under the Rejection Reason column heading.
- **The Draft Invoice Generation Eligibility Report (Unprocessed Expenditure Items Detail).** This report displays all expenditure items that the process could not invoice for the specified project and also shows information for each expenditure item to help you identify why the expenditure item was not invoiced. Use this information to check if the expenditure item date is on or before the bill through date, if the item is revenue distributed, if the item is on

billing hold, or if the item is included on a draft revenue that has a generation error.

- **The Draft Invoice Generation Eligibility (Unprocessed Events Detail) report.** Created only when the process is run for one project, this report displays any of the billing events that the process could not invoice for the specified project and shows information for each event to help identify why the event was not invoiced. Use this information to check if the completion date is on or before the bill through date, if the event is on billing hold, or if the write on event is revenue distributed.

Generate Draft Revenue

This process calculates revenue for contract projects.

If your project uses cost-to-cost revenue accrual, you must include burdened costs in your cost budget and revenue amounts in your revenue budget. Without these amounts, Oracle Projects cannot successfully generate revenue for your project.

Process Submission

To submit the process for multiple projects, use PRC: Generate Draft Revenue. To submit the process for one project, use PRC: Generate Draft Revenue for a Single Project. See Submitting Requests: page 10 – 2

Process Parameters

Accrue Through Date. The process only selects those expenditure items and events dated on or before the date that you enter here. If you leave this parameter blank, the Generate Draft Revenue process uses the current date as the accrue through date.

When you process revenue for projects using cost-to-cost revenue accrual, the accrue through date used is the PA Date instead of the expenditure item date.

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Project Number. (For PRC: Generate Draft Revenue for a Single Project only). Number of the project for which you want to run the process.

Rescheduling Parameters

Use the rescheduling parameters to configure a process to run automatically, according to a defined schedule. You can specify rescheduling parameters when you submit the process from the Submit Request window.

Reports

The Generate Draft Revenue process creates the following reports:

- **The Draft Revenue Generation Exception Report.** Lists all of the project draft revenues that the process was unable to successfully create during its processing. For each rejected draft revenue, the Draft Revenue Generation Exception Report displays the rejection reason.
- **The Draft Revenue Generation Exception (Rejected Expenditure Items Detail) Report.** Created only when the process is run for all eligible projects or a group of projects. This report shows you all expenditure items that the Generate Draft Revenue process rejected during its processing. For each rejected expenditure item, the report displays the rejection reason.

You can also view the results of the process in the following ways:

- You can review rejection reasons from the Expenditure Items window by using the Show Field option in the Folder menu to display Revenue Distr. Rejection. See: Viewing Expenditure Items: page 4 – 47.
 - You can review the log file generated by the Generate Draft Revenue process to view exceptions. The log file is generated for both the Single Project and multiple project Generate Revenue processes.
- **The Draft Revenue Generation Exception Report (Rejected Event Detail).** Created only when the process is run for all eligible projects or a group of projects. This report shows you all revenue events that the Generate Draft Revenue process rejected during its processing. For each rejected revenue event, this report displays the rejection reason.
 - **The Draft Revenue Generation Report.** Lists each draft revenue that was successfully created by the process. For each draft revenue, this report displays the project for which it was created, its draft revenue number, the number of the draft revenue, if any, that it credits, the customer number, name, and agreement providing the funding, the accrue through date used to generate the revenue, and the total amount of the draft revenue. This report also displays any generation warnings below each draft revenue.
 - **The Draft Revenue Generation Eligibility Report.** Created only when the process is run for one project. This report displays the project for which the Generate Draft Revenue process was submitted. If the process cannot create a new draft revenue for the project, the reason for the generation failure appears under the Rejection Reason column heading.

- **The Draft Revenue Generation Eligibility Report (Unprocessed Expenditure Items Detail).** Created only when the process is run for one project. This report displays all of the specified project's expenditure items for which the process could not accrue revenue and shows information to help identify why the item did not accrue revenue. Use this information to check if the expenditure item date is on or before the accrue through date, if the item is costed, if the item is summarized (for *cost* revenue accrual projects), if the item is billable, and if a rejection reason like 'No labor bill rate' was encountered.
- **The Draft Revenue Generation Eligibility Report (Unprocessed Events Detail).** Created only when the process is run for one project. This report displays all of the specified project's revenue events for which the process could not accrue revenue and shows information to help you identify why the event did not accrue revenue. Use this information to check if the event completion date is on or before the accrue through date.

Generate Intercompany Invoices

This process:

- Creates intercompany invoices from cross-charged transactions previously identified by intercompany billing to be processed for cross charging
- Deletes unreleased intercompany invoices
- Creates intercompany credit memos and invoice cancellations

The PRC: Generate Intercompany Invoices for a Single Project process deletes unapproved invoices and regenerates new ones.

The process PRC: Generate Intercompany Invoices for a Range of Projects does not delete unapproved invoices. If unreleased invoices exist for an intercompany billing project and the provider and receiver control is set to bill by receiver operating unit, the process skips the affected project. If unreleased invoices exist for a cross charged project, and the provider and receiver control is set to bill by cross charged project, the process skips the affected project.

Process Submission

To submit the process for one project, use PRC: Generate Intercompany Invoices for a Single Project.

To submit the process for multiple projects, use PRC: Generate Intercompany Invoices for a Range of Projects.

See Submitting Requests: page 10 – 2

Parameters

Bill Through Date. The process creates invoices using cross-charged expenditure items with dates on or before the date you enter here. If you leave this parameter blank, the process uses the current date.

From Project Number / To Project Number. For PRC: Generate Intercompany Invoices for a Range of Projects, enter the range of numbers for the intercompany billing projects for which you want to generate invoices. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Project Number. For PRC: Generate Intercompany Invoices for a Single Project, enter a number for an intercompany billing project.

Reports

The following reports show the results of the process:

- **Intercompany Invoice Report.** For each intercompany invoice created successfully, the report prints the invoice and then lists the intercompany billing project for which the invoice was created, its invoice number, the number of the invoice, if any, that it credits, the customer number, name, and receiver operating unit, the bill through date through used to create the invoice, the total amount of the invoice, and the next action to take in the invoicing flow.
- **Intercompany Invoice Exception Report.** Lists any intercompany invoices that the process was unable to create successfully as well as the rejection reason for each.

The following reports print only when you submit PRC: Generate Intercompany Invoices for a Single Project:

- **Intercompany Invoice Generation Eligibility Report: Project Eligibility.** Lists information about the intercompany billing project for which the process was submitted. The information includes the project start date, the date of the last time invoices were generated for that project, and the receiver operating unit associated with the project. If the process cannot create a new intercompany invoice, the reason appears in the Rejection Reason column.
- **Intercompany Invoice Generation Eligibility Report: Unprocessed Expenditure Items Detail.** Lists all cross-charged expenditure items that the process could not invoice for the specified project. Refer to the information for each cross-charged expenditure item so you can determine if the expenditure item date is on or before the bill through date, or if the item was rejected during intercompany billing processing.

You can also submit the reports without running the process. Submit AUD: Intercompany Invoice Generation Report for a Single Project or AUD: Intercompany Invoice Generation Report for a Range of Projects with a single request ID or a range of requests as input parameters.

Interface Assets

The Interface Assets process sends valid asset lines to Oracle Assets to become fixed assets. The process creates one mass addition line in Oracle Assets for each asset line in Oracle Projects, assigning the asset information you entered for the CIP asset to the mass addition line in Oracle Assets.

Interface the costs to General Ledger before you run the Interface Assets process.

Process Submission

You use the Submit Request window to submit the PRC: Interface Assets process. See: Submitting Requests: page 10 – 2.

Process Parameters

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Date Placed in Service Through. Enter the In Service Through date up to which you want to process capitalized costs.

Reports

The following reports show you the results of this process. These reports show amounts in the project currency.

- **Interface Assets Exceptions.** The Interface Assets Exceptions Report indicates which asset lines were not sent to Oracle Assets for the selected projects, and why each one was rejected. Rejection reasons include:
 - Date placed in service belongs to a future Oracle Assets period
 - Asset not created in Oracle Assets (You have not yet posted the mass addition asset line from Oracle Projects) to Oracle Assets
 - CIP costs for supplier invoice adjustments have not been interfaced to Oracle Payables
 - CIP Costs for the summarized asset lines have not been interfaced to Oracle General Ledger
- **Interfaced Assets.** The Interfaced Assets Report displays the following:

- The count of asset lines, and the sum of the interfaced assets, for each project and successfully interfaced asset
- The subtotal for each project
- The overall total

See Also

Sending Asset Lines to Oracle Assets: page 7 – 29

Interface Cross Charge Distributions to General Ledger

The process identifies the cross-charged transactions that fit the parameters you specify and then interfaces the cross-charged distributions to General Ledger. Once interfaced, the cross-charge distributions await further processing by the Journal Import process in Oracle General Ledger.

Successfully interfaced distributions have a status of *Accepted*. Rejected distributions have a status of *Rejected*.

If you implement Multiple Reporting Currencies in Oracle Projects, you must run this process in your primary currency before you can run the same process in your reporting currencies. See: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC: Interface Cross Charge Distributions to General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the following streamline options:

- XC: Interface Cross Charge Distributions to General Ledger. This option initiates the following processes:
 - PRC: Interface Cross Charge Distributions to GL
 - PRC: Journal Import
 - PRC: Tieback Cross Charge Distributions from GL
- DXC: Distribute and Interface Borrowed and Lent Amounts to GL. This option initiates the following processes:
 - PRC: Distribute Borrowed and Lent Amounts
 - PRC: Interface Cross Charge Distributions to GL
 - PRC: Journal Import
 - PRC: Tieback Cross Charge Distributions from GL

Parameters

GL Category. Select either Borrowed and Lent or Provider Cost Reclass (Reclassification), or leave blank to select both categories. This

parameter allows users to completely process Borrowed and Lent transactions in sequence with the Distribute Borrowed and Lent Amounts process.

Expenditure Batch. Select an expenditure batch, or leave blank to process all unprocessed expenditure batches. This parameter allows users to completely process Borrowed and Lent transactions in sequence with the Distribute Borrowed and Lent Amounts process.

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5. These parameters allow you to completely process:

- Borrowed and Lent transactions in sequence with the Distribute Borrowed and Lent Amounts process
- Intercompany Billing transactions in sequence with the Generate Intercompany Invoices Process

End PA Date. Enter a date to select all cross-charged distributions with PA dates up to and including the specified date. The default is the system date.

Reports

The following reports show the results of the process:

Transfer Cross Charge Amounts to GL. Lists by GL category the number of distributions and total debit and credit amounts that were successfully interfaced to GL. The report groups the information by account, PA dates, and GL dates. The report lists the amounts in functional and transaction currencies.

Transfer Cross Charge Amounts to GL Exceptions. Lists by GL category and rejection reason the number of distributions and total debit and credit amounts that failed to interface to GL.

You can also submit the report without running the process.

Interface Expense Reports from Payables

Two processes in Oracle Projects have very similar names. This process gets expense report information *from* Payables.

This process creates pre-approved expense report batches from expense report information entered in Self-Service Expenses or in the Invoices window (in Payables). The data from expense reports entered in Self-Service Expenses does not reside in your invoice tables until you run Payables Invoice Import. Expense reports entered in the Invoices window are saved directly into the invoice tables and do not need to be imported.

Oracle Projects identifies expense report batches that you create from Self-Service Expenses with a source of *Oracle Payables*.

Oracle Projects generates transactions with a source of *Oracle Payables*. The Allow Adjustments option is enabled for this source, but allows only net zero adjustments. Reversals and recalculations of burdened costs are not allowed.

Prerequisites

For expense reports entered in Self-Service Expenses:

- If the Automatically Create Employee As Supplier option is disabled in Payables, open the Supplier window and enter the employee as a supplier.

Employees must be designated as suppliers. If they are not, the interface program will not post the invoice.

- Run the Payables Invoice Import program. See: Payables Invoice Import Program *Oracle Payables User's Guide*.
- Run the Payables Transfer to General Ledger program in Payables. For more information, see: Interfacing Invoices to Oracle General Ledger: page 13 – 30.

For expense reports entered in the Invoices window (in Payables), run the Payables Transfer to General Ledger program (in Payables). For more information, see: Interfacing Invoices to Oracle General Ledger: page 13 – 30.

Process Submission

Use the Submit Request window to submit the PRC: Interface Expense Reports from Payables process. See: Submitting Requests: page 10 – 2.

Process Parameters

Project Number Enter the number of the project whose invoice distribution lines you want to transfer. Leave the line blank to select all eligible invoice distribution lines for all projects.

Batch Name Enter a name for the pre-approved expenditure batch; Oracle Projects appends ER<interface ID> to the end of all batch names. If you do not enter a name, Oracle Projects creates one in the format AP-<request ID>ER<interface ID>.

End GL Date Enter the General Ledger date through which you want this process to select invoice distribution lines. If you leave this parameter blank, the process selects all eligible invoice distribution lines.

End Expenditure Item Date Enter the date through which you want this process to select invoice distribution lines. If you leave this parameter blank, the process selects all eligible invoice distribution lines.

Reports

This process creates the following reports:

Transfer Expense Reports Report. Lists the invoice distribution lines that Oracle Projects received successfully, as well as a summary of the total number and cost of the distribution lines.

Transfer Expense Reports Exception Report. Lists invoice distribution lines that were not received successfully, and the reason for the failure of each.

See Also

Interface Expense Reports to Payables: page 11 – 44

Interfacing Expense Reports from Payables: page 13 – 33

Interface Expense Reports to Payables

Two processes in Oracle Projects have very similar names. This process sends expense report information to Payables.

The Interface Expense Reports to Payables process collects all eligible expense reports, including adjustments, in Oracle Projects and interfaces them to the Oracle Payables interface tables. The Interface process also determines the liability account for the expense report costs.

After they are interfaced to these interface tables, the expense reports await further processing by Oracle Payables' Invoice Import process. If any of the expense reports are rejected during the interface to Oracle Payables, then the transfer status for these expense reports is set to Rejected in the interface. Those expense report costs that are successfully interfaced have a transfer status of Interfaced.

Any adjustments processed for existing transactions are attached to the original expense reports in Oracle Payables for Cash Basis Accounting purposes.

Process Submission

To submit the PRC: Interface Expense Reports to Payables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XES or XEU: Interface Expense Report Costs to AP streamline option.

Reports

The following reports show you the results of this process. These reports show amounts in the functional currency.

- **The Interface Expense Reports Report (Interface to Payables).** Lists all interfaced expense reports, along with the total count and the total cost of the expense reports. For each expense report, this report displays the name of the employee who submitted the expense report, the period ending date of the expense report, the total cost of the expenditure items included in the expense report, and the name of the expense reports batch in which the expense report was grouped.
- **The Interface Expense Reports Exception Report (Interface to Payables).** Lists any expense reports that were rejected during

interface to Oracle Payables. For each expense report that fails to interface to Oracle Payables, this report lists the rejection reason.

See Also

Interface Expense Reports to Payables: page 11 – 42

Payables Invoice Import *Oracle Payables User's Guide*

Interface Intercompany Invoices to Receivables

This process collects all eligible intercompany invoices in Oracle Projects and interfaces them to the Oracle Receivables interface tables. The process also generates receivables accounts for each invoice. Successfully interfaced invoices have a transfer status of "Interfaced." Rejected invoices have an interface status of "Rejected in Interface."

Once in the interface tables, the intercompany invoices await further processing by AutoInvoice process in Oracle Receivables.

If you implement Multiple Reporting Currencies in Oracle Projects, you can run this process only in your primary currency. See: *Multiple Reporting Currencies in Oracle Applications* .

Process Submission

To submit the PRC: Interface Intercompany Invoices to Receivables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6). Select the streamline option XII: Interface Intercompany Invoices to AR, which initiates the following processes:

- PRC: Interface Intercompany Invoices to Receivables
- PRC: AutoInvoice
- PRC: Tieback Invoices from Receivables

Parameters

Project Number. Enter a number for the intercompany billing project, or leave the field blank to interface intercompany invoices for all projects.

Reports

The following reports show the results of the process:

- **Accounts Receivable Transfer Report.** Lists each intercompany invoice interfaced successfully to Oracle Receivables. For each intercompany invoice, the report displays the associated project number and invoice number, the number of the invoice, if any, that this invoice credits, the number of the cross-charged project

for the invoice, the GL accounting date in which the invoice posts, and the total bill amount of the invoice.

- **The Accounts Receivable Transfer Exception Report (Invoice Transactions).** Lists any intercompany invoices rejected during the process. For each intercompany invoice that fails to interface to Receivables, the reports lists the reason.

Interface Invoices to Receivables

This process collects all eligible draft invoices in Oracle Projects and interfaces them to the Oracle Receivables interface tables. The process also maintains the project balances of unbilled receivable and unearned revenue and creates accounting transactions for these amounts.

Once interfaced to these interface tables, the draft invoices await further processing by the AutoInvoice process in Receivables. If any of the draft invoices are rejected during the interface to Oracle Receivables, then the interface status for these invoices is set to Rejected in Interface. Those draft invoices that successfully interface have the transfer status Interfaced.

You can run this process either before or after you run PRC: Interface Revenue to General Ledger (neither process is a prerequisite for the other).

If you implement Multiple Reporting Currencies in Oracle Projects, you can run this process only in your primary currency. See also: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC:Interface Invoices to Receivables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XI: Interface Draft Invoice to AR streamline option.

Process Parameters

Project Number. Enter the number of the project whose invoices you want to interface to Oracle Receivables. If you leave this parameter blank, the process selects all eligible draft invoices for all projects.

Reports

The following reports show you the results of this process:

- **The Accounts Receivable Interface Report (Invoice Transactions)** prints each draft invoice that successfully interfaced to Oracle Receivables. For each draft invoice, this report displays the draft invoice's project number and draft

invoice number, the customer name and customer agreement funding the invoice, the PA and GL accounting dates in which the draft invoice posts, the number of the draft invoice, if any, that this one credits, and the total bill amount of the draft invoice.

- **The Accounts Receivable Interface Exception Report (Invoice Transactions).** Lists any draft invoices that were rejected during the process. For each draft invoice that fails to interface to Oracle Receivables, this report lists the rejection reason.

Interface Labor Costs to General Ledger

This process collects all eligible labor costs in Oracle Projects and interfaces them to the Oracle General Ledger interface tables. The interface process also determines the liability account for the labor costs. Once interfaced, these labor costs await further processing by Oracle General Ledgers Journal Import process.

The labor costs that successfully interface are updated with the interface status of Accepted. If any of the labor costs are rejected during interface to Oracle General Ledger, then the interface status for these labor items is set to Rejected.

If you implement Multiple Reporting Currencies in Oracle Projects, you must run this process in your primary currency before you can run the same process in your reporting currencies. See also: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC: Interface Labor Costs to General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XL: Interface Labor Costs to GL streamline option.

Process Parameters

End PA Date. The process interfaces all cost distribution lines with a PA date on or before the date that you enter here. If you leave this parameter blank, the process selects all eligible labor expenditure items for interface.

Reports

The following reports show you the results of this process. These reports show amounts in the functional currency.

The Interface Labor Costs to General Ledger Report. Lists all timecards, along with the total timecard count and the total labor cost successfully interfaced to Oracle General Ledger. For each expenditure, this report displays the name of the employee who reported the timecard, the timecard week ending date, and the total labor cost.

The Interface Labor Costs to General Ledger Exception Report. Lists any expenditures that were rejected during the process. For each expenditure that fails to interface to Oracle General Ledger, this report lists the rejection reason.

Interface Revenue to General Ledger

This process collects all eligible revenue in Oracle Projects and interfaces it to the Oracle General Ledger interface tables. This process also maintains project balances for unbilled receivables and unearned revenue and creates accounting transactions for these amounts. After the revenue is interfaced, you use Oracle General Ledger's Journal Import process to import the transactions into General Ledger.

The profile option PA: Interface Unreleased Revenue to GL determines whether or not this process includes unreleased draft revenue. See: PA: Interface Unreleased Revenue to GL; page B – 12.

The revenues that successfully interface are updated with the interface status of Accepted. If any of the revenues are rejected during interface to Oracle General Ledger, then the interface status for these revenues is set to Rejected.

You can run this process either before or after you run PRC: Interface Invoices to Receivables (neither process is a prerequisite for the other).

If you implement Multiple Reporting Currencies in Oracle Projects, you must run this process in your primary currency before you can run the same process in your reporting currencies. See also: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC:Interface Revenue to General Ledger process by itself, see: Submitting Requests; page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes; page 11 – 6) and select the XR: Interface Draft Revenue to GL streamline option.

Process Parameters

Start PA Date. Enter the date for the low end of the PA Date range within which you want the process to select eligible draft revenues. If you leave this parameter blank, the process selects all eligible draft revenues having PA Dates before the date you enter in the End PA Date process parameter.

End PA Date. Enter the date for the high end of the PA Date range within which you want the process to select eligible draft revenues. If you leave this parameter blank, the process selects all eligible draft

revenues having PA Dates after the date you enter in the Start PA Date process parameter.

Project Number. Enter the number of the project whose draft revenues you want to interface to Oracle General Ledger. If you leave this parameter blank, the process selects all eligible draft revenues across all projects.

Reports

The following reports show you the results of this process:

The Interface Revenues to General Ledger Report (Revenue Transactions). Lists each draft revenue that successfully interfaced to Oracle General Ledger. For each draft revenue, this report displays the draft revenue's project number and draft revenue number, the customer name and customer agreement funding the revenue, the PA and GL accounting dates in which the draft revenue posts, the number of the draft revenue, if any, that this one credits, and the total revenue amount of the draft revenue.

The Interface Revenues to General Ledger Exception Report (Revenue Transactions). Lists any draft revenues that were rejected during the process. For each draft revenue that fails to interface to Oracle General Ledger, this report lists the rejection reason.

Interface Supplier Invoice Adjustment Costs to Payables

This process collects all eligible supplier invoice adjustment costs in Oracle Projects and interfaces them to Oracle Payables. The process determines the liability account for the supplier invoice costs. Once interfaced, these costs await further processing by Oracle Payables before you can post the adjustments to Oracle General Ledger.

The costs that successfully interface are updated with the interface status of Accepted. If any of the costs are rejected during interface to Oracle Payables, then the interface status for these items is set to Rejected.

Process Submission

To submit the PRC: Interface Supplier Invoice Adjustment Costs to Payables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the DXA: Distribute / Interface Supplier Invoice Adj. to AP streamline option.

Process Parameters

End PA Date. The process interfaces all supplier invoice cost distribution lines with PA dates on or before the date that you enter here. If you leave this parameter blank, the process selects all eligible usage cost distribution lines for interface regardless of the PA date.

Reports

The following reports show you the results of this process. These reports show amounts in the functional and transaction (AP invoice) currencies..

- **The Interface Supplier Invoice Adjustment Report.** Lists supplier invoice adjustment items successfully interfaced to Oracle Payables. This report displays the expenditure items that were interfaced to Oracle Payables.
- **The Interface Supplier Invoice Adjustments Exception Report.** Lists any expenditure items that were rejected during the process. For each supplier invoice item that fails to interface to Oracle Payables, this report lists the rejection reason.

Interface Supplier Invoices from Payables

The PRC: Interface Supplier Invoices from Payables process retrieves the following items and interface them to Oracle Projects:

- All eligible posted, project-related supplier invoices from Oracle Payables
- Tax lines for project-related intercompany invoices

The process first populates the Transaction Import Interface table, creating a cost distributed expenditure item and cost distribution line for each invoice distribution line, and an expenditure for each invoice.

This process also checks for original items being adjusted when processing adjusting items from Oracle Payables, to ensure that every negative expenditure item adjusts a valid original expenditure item. If an original matching item is found, the process next checks to ensure that the original item is not already adjusted to have a net zero amount.

This process validates and rejects or interfaces the supplier invoice adjustments being interfaced. If the process finds a valid original expenditure item for the adjusting item, it accepts the adjusting item. If the process cannot find a valid original item that matches the adjusting item, it rejects the adjusting item with a reason of *No matching item for adjustment*. If the process finds a matching item that is already reversed, it rejects the adjusting item with a reason of *Item already reversed*.

The process then uses the Transaction Import program to import the transactions into Oracle Projects.

Process Submission

Use the Submit Request window to submit the PRC: Interface Supplier Invoices from Payables process. See: Submitting Requests: page 10 – 2.

Process Parameters

Project Number. Enter the number of the project whose supplier invoice distribution lines you want to transfer. If you leave this parameter blank, the process selects all eligible supplier invoice distribution lines for all projects.

Batch Name. Enter the batch name that you want to create for the group of invoices you will import. The batch name you enter is used as part of the expenditure batch name that will be created for this batch.

End GL Date. Enter the GL Date through which you want this process to select supplier invoice distribution lines. If you leave this parameter blank, the process selects all eligible supplier invoice distribution lines regardless of their GL Dates.

End Expenditure Item Date. Enter the expenditure item date through which you want this process to select supplier invoice distribution lines. If you leave this parameter blank, the process selects all eligible supplier invoice distribution lines regardless of their expenditure item dates.

Reports

The following reports show you the results of this process. These reports show amounts in the functional and transaction (AP invoice) currencies.

- **The Interface Project Costs from Payables Report.** Lists supplier invoice distribution lines that were successfully interfaced to Oracle Projects, as well as a summary of the total number and cost of distribution lines.
- **The Interface Project Costs from Payables Exception Report.** Lists any supplier invoice distribution lines that failed to interface to Oracle Projects during the process. For each supplier invoice distribution line that fails to transfer, output reports lists the rejection reason.

The Transaction Import reports are also generated to show you the results of the import process. See: Transaction Import: page 11 – 74.

Interface Total Burdened Cost to General Ledger

This process collects all eligible total burdened distribution lines in Oracle Projects and interfaces them to Oracle General Ledger.

If you implement Multiple Reporting Currencies in Oracle Projects, you must run this process in your primary currency before you can run the same process in your reporting currencies. See also: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC: Interface Total Burdened Cost to GL process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the following streamline options:

- DXB: Distribute and Interface Total Burdened Costs to General Ledger
- XB: Interface Total Burdened Cost to General Ledger

Process Parameters

End PA Date. This process interfaces all total burdened cost distribution lines with a PA date on or before the date that you enter here. If you leave this parameter blank, the process selects all eligible total burdened cost distribution lines for interface regardless of the PA date.

Reports

The following reports show you the results of this process:

- **Interface Total Burdened Cost to General Ledger Report.** Lists interfaced burdened items by expenditure type class, along with the total amount successfully interfaced to Oracle General Ledger. This report also displays the employee, expenditure ending date, and the batch name of the interfaced amounts.
- **The Interface Total Burdened Cost to General Ledger Exception Report.** Lists any expenditure items that were rejected during the process and lists the rejection reason for each item.

Interface Usage and Miscellaneous Costs to General Ledger

This process collects all eligible cost distribution lines of the following transactions in Oracle Projects and interfaces them to the Oracle General Ledger interface tables: usage costs, miscellaneous transaction costs, burden transaction costs, and Inventory and WIP transactions not already costed or accounted. The interface process also determines the liability account for these costs. After they are interfaced, these costs await further processing by Oracle General Ledger's Journal Import process.

The costs that are successfully interfaced are updated with the interface status of Accepted. If any of the costs are rejected during interface to Oracle General Ledger, then the interface status for these items is set to Rejected.

If you implement Multiple Reporting Currencies in Oracle Projects, you must run this process in your primary currency before you can run the same process in your reporting currencies. See also: *Multiple Reporting Currencies in Oracle Applications*.

Process Submission

To submit the PRC :Interface Usage and Miscellaneous Costs to General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XU: Interface Usage and Miscellaneous Costs to GL streamline option.

Process Parameters

Through PA Date. This process interfaces eligible cost distribution lines with a PA date on or before the date that you enter here. If you leave this parameter blank, the process selects all eligible distribution lines for interface regardless of the PA date.

Reports

The following reports show you the results of this process. These reports show amounts in the functional currency.

The Interface Usage and Miscellaneous Costs to General Ledger Report. Lists resources by expenditure week, along with the total count and cost successfully interfaced to Oracle General Ledger. This

report displays the non-labor resource, the expenditure week ending date, and the total cost.

The Interface Usage and Miscellaneous Costs to General Ledger Exception Report. Lists any expenditure items that were rejected during the process and the rejection reason for each item.

Process Mass Update Batches

This process updates the organization on all the projects and tasks specified in a mass update batch.

You can also run Mass Update Batches as an online program, using the Mass Update Batches window. See: Mass Update Batches: page 2 – 64

Process Submission

From the Submit Request window, submit the PRC: Process Mass Update Batches process. See: Submitting Requests: page 10 – 2

Process Parameters

Batch. Select the batch that you wish to process. If you leave this field blank, all mass update batches with the status Submitted and with effective dates on or earlier than the current system date will be processed.

Reports

An output report shows you the results of this process. The report shows amounts in the project currency.

See Also

Processing a Mass Update Batch: page 2 – 68

Refresh Project Summary Amounts

After you have interfaced detail transactions from your legacy system to Oracle Projects, you use the Refresh Project Summary Amounts and Refresh Transaction Summary Amounts processes to create project summary amounts from transactions that you have interfaced.

You can use this process alone, or run this process after you have run Refresh Transaction Summary Amounts to build the summary amounts from large numbers of detail transactions. See: Refresh Transaction Summary Amounts.: page 11 – 62

You must also run this process after you set the current PA Reporting Period to an earlier period than the previous PA Reporting Period, if the system has alerted you that projects have been summarized with dates later than the new reporting period. See: Setting the PA Reporting Period: page 17 – 73.

Process Submission

From the Submit Request window, submit the PRC: Refresh Project Summary Amounts process. See: Submitting Requests: page 10 – 2

Process Parameters

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Through Date. Optionally enter an end date for the process.

If you do not enter a date, or the date you enter is equal to or later than the current reporting period end date, the process summarizes all selected data through the current reporting period.

If you enter a date earlier than the end date of the current reporting period, the process summarizes data through the date you enter.

See Also

Setting the PA Reporting Period: page 17 – 73

Creating Project Summary Amounts After Conversion: page 9 – 18

Refresh Transaction Summary Amounts

After you have interfaced detail transactions from your legacy system to Oracle Projects, you use the Refresh Project Summary Amounts and Refresh Transaction Summary Amounts processes to create project summary amounts.

Use this process if you are interfacing large numbers of detail transactions. This process enables you to build the summary amounts in smaller runs based on the process parameters you enter. This process creates transaction totals for the specified range of PA periods, but does not produce the project summary numbers used by the Project Status Inquiry window.

After you run this process, you then run the Update Project Summary Amounts process to create the project summary amounts used by the Project Status Inquiry window.

Process Submission

From the Submit Request window, submit the PRC: Refresh Transaction Summary Amounts process. See: Submitting Requests: page 10 – 2

Process Parameters

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

From PA Period...To PA Period. Enter a range of PA periods for which you want the process to run.

Expenditure Type Class. You can optionally select an expenditure type class that the process will use.

See Also

Creating Project Summary Amounts After Conversion: page 9 – 18

Project Status Inquiry: page 9 – 2

Release Allocation Transactions

After you create a successful draft run, the Generate Allocations Transactions process has created the allocation transactions but not yet allocated each transaction to the targets you specified. To allocate the transactions to the targets, you *release* the run.

You can release a draft run after the effective dates of the rule. You can also release the run in the Review Allocation Runs window.

After you release the run, the status changes to Release Success or Release Failure. You may have to wait a short while for the status to change. For more information about the status see: About the Run Status: page 6 – 20.

Prerequisites

Before you can carry out the PRC: Release Allocations Transactions process, you must:

- Create an allocation rule. See: Defining Allocation Rules: page 6 – 5
- Generate allocations transactions. See: Generate Allocation Transactions: page 11 – 25

You can release allocation runs only if they have a status of Draft Success.

Process Submission

Submit the PRC: Release Allocation Transactions process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Parameters

Rule Name. Enter the name of the allocation rule whose draft you want to release (the status of the rule must be Draft Success).

Reports

The following report shows the results of the process (regardless of whether the release process succeeds or fails):

- **Allocations Release Report.** The report lists exceptions, the transactions generated by the rule, amounts allocated to each

target project, totals, and offsets, if any. For incremental allocations, the report also lists current and previous amounts.

See Also

Generate Allocation Transactions: page 11 – 25

Tieback Cross Charge Distributions from GL

This process determines if cross-charged distributions previously interfaced to Oracle General Ledger have been rejected by the Journal Import process in General Ledger. If Journal Import rejected the cross-charged distributions, this tieback process deletes all rejected rows from the interface tables and updates the interface status for the cross-charged distribution lines *Rejected*. You can determine the rejection reason from the Journal Import report. After you resolve the reason the costs were rejected, interface the distributions again to General Ledger.

Process Submission

Submit the PRC: Tieback Cross Charge Distributions from GL process from the Submit Requests window. See: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the following streamline options:

- XC: Interface Cross Charge Distributions to General Ledger. This option initiates the following processes:
 - PRC: Interface Cross Charge Distributions to GL
 - PRC: Journal Import
 - PRC: Tieback Cross Charge Distributions from GL
- DXC: Distribute and Interface Borrowed and Lent Amounts to GL. This option initiates the following processes:
 - PRC: Distribute Borrowed and Lent Amounts
 - PRC: Interface Cross Charge Distributions to GL
 - PRC: Journal Import
 - PRC: Tieback Cross Charge Distributions from GL

Parameters

None.

Reports

The following report shows the results of the process:

Tieback Cross Charge Distributions Report. Lists the total number of cross-charged distributions rejected by the Journal Import process since the last time the Tieback Cross Charge Distributions from General Ledger process ran.

Tieback Expense Reports from Payables

This process determines the status of expense reports that were previously interfaced to Oracle Payables. If the expense reports were processed by Oracle Payables' Invoice Import process successfully, then this process updates the expense reports as *Accepted* by Oracle Payables. If the expense reports were rejected by Oracle Payables' Invoice Import process, this tieback process deletes all rejected rows from the interface tables and updates all expense reports as *Rejected* in Oracle Projects. Correct the rejected expense reports and transfer them again.

You must use the same report mode, either summarized or detailed, to interface expense report costs to Payables and to tieback the same expense reports. See: Interface Expense Reports to Payables: page 13 – 26 and PA: Summarize Expense Report Lines: page B – 16.

Process Submission

To submit the PRC: Tieback Expense Reports from Payables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XES or XEU: Interface Expense Reports Costs to AP streamline option.

Reports

The following reports show you the results of this process. These reports show amounts in the functional currency.

- **The Tieback Expense Report Costs Report.** Lists the total number of expense reports successfully processed by Invoice Import since the last time the Tieback Expense Reports from Payables process ran.
- **The Tieback Expense Report Costs Exception Report.** Lists any expense reports that were rejected by Oracle Payables' Invoice Import process since the last time the Tieback Expense Reports from Payables process ran. For each rejected expense report, this exception report displays the rejection reason given by Invoice Import.

See Also

Payables Invoice Import *Oracle Payables User's Guide*

Tieback Invoices from Receivables

This process determines the status of draft and intercompany invoices interfaced to Oracle Receivables. For invoices that are successfully processed through Oracle Receivables AutoInvoice process, this tieback process updates the interface status of the invoice to *Accepted*. For rejected invoices, the tieback process deletes the rejected rows from the interface tables and updates the invoice status to *Rejected*. Correct the rejected invoices and interface them again.

After the tieback process is complete, the process identifies intercompany and inter-project invoices that were successfully interfaced and interfaces them to Payables of the receiver operating unit.

Process Submission

To submit the PRC: Tieback Invoices from Receivables process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the Interface to AR streamline options.

Reports

The following reports show you the results of this process:

- **Tieback Invoices Report (Successful Invoice Transfers).** Lists each draft invoice that was successfully processed by the AutoInvoice process. For each draft invoice, the report displays the project number and the draft invoice number, the customer number, name, and agreement funding the invoice, the date that the draft invoice was interfaced to Oracle Receivables, and the AR invoice number of the invoice.
- **Tieback Invoices Report (Rejected Invoice Transfers).** Lists any draft invoices that were rejected by Oracle Receivables' AutoInvoice process. For each rejected draft invoice, this report lists the rejection reason given by AutoInvoice.

Tieback Labor Costs from General Ledger

This process determines if labor costs previously interfaced to Oracle General Ledger have been rejected by Oracle General Ledger's Journal Import process. If Journal Import rejected the labor costs, this tieback process deletes all rejected rows from the interface tables and updates the cost distribution lines' interface status to *Rejected*. After the reason the costs were rejected is resolved, these costs can then be retransferred to General Ledger. You can determine the rejection reason from the Journal Import report.

Process Submission

To submit the PRC: Tieback Labor Costs from General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the Interface Labor Costs to GL streamline options.

Reports

One output report shows you the results of this process:

- **The Tieback Labor Costs Report.** Lists the total number of labor cost items rejected by the Journal Import process since the last time the Tieback Labor Costs from General Ledger process ran.

Tieback Revenue from General Ledger

This process determines if revenue previously interfaced to Oracle General Ledger have been rejected by Oracle General Ledger's Journal Import process. If Journal Import rejected the revenue, this tieback process deletes all rejected rows from the interface tables and updates the draft revenues' interface status to *Rejected*. After the reason the revenue was rejected is resolved, these revenues can then be retransferred to General Ledger. You can determine the rejection reason from the Journal Import report.

Process Submission

To submit the PRC: Tieback Revenue from General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select one of the Interface Labor Costs to GL streamline options.

Reports

One output report shows you the results of this process:

- **The Tieback Revenue Report.** Lists the total number of draft revenues rejected by the Journal Import process since the last time the Tieback Revenue from General Ledger process ran.

Tieback Total Burdened Cost from General Ledger

This process determines if total burdened costs previously interfaced to Oracle General Ledger have been rejected by Oracle General Ledger's Journal Import process. If Journal Import rejected the total burdened costs, this tieback process deletes all rejected rows from the interface tables and updates the cost distribution lines' interface status to *Rejected*. After the reason the total burdened costs were rejected is resolved, these costs can then be retransferred to General Ledger. You can determine the rejection reason from the Journal Import report.

Process Submission

To submit the PRC: Tieback Total Burdened Cost from GL process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6). Then select the DXB: Distribute and Interface Total Burdened Cost to GL or XB: Interface Total Burdened Costs to GL streamline option.

Reports

One output report shows you the results of this process:

- **Tieback Total Burdened Costs Report.** Lists the total number of burdened cost distribution lines rejected by the Journal Import process since the last time the Tieback Total Burdened Costs from General Ledger process ran.

Tieback Usage Costs from General Ledger

This process determines if usage and miscellaneous costs previously interfaced to Oracle General Ledger have been rejected by Oracle General Ledger's Journal Import process. If Journal Import rejected the costs, this tieback process deletes all rejected rows from the interface tables and updates the cost distribution lines' interface status to *Rejected*. After the reason the costs were rejected is resolved, these costs can then be retransferred to General Ledger. You can determine the rejection reason from the Journal Import report.

Process Submission

To submit the PRC: Tieback Usage Costs from General Ledger process by itself, see: Submitting Requests: page 10 – 2.

To submit the process as part of a streamline process, submit PRC: Submit Interface Streamline Processes (see: Submitting Streamline Processes: page 11 – 6) and select the XU: Interface Usage and Miscellaneous Costs to GL streamline option.

Reports

One report shows you the results of this process:

- **The Tieback Usage and Miscellaneous Costs Report.** Lists the total number of cost distribution lines rejected by the Journal Import process since the last time the Tieback Usage and Miscellaneous Costs from General Ledger process ran.

Transaction Import

The Transaction Import process selects all eligible pending transactions in the PA_TRANSACTION_INTERFACE_ALL table that satisfy the selection criteria of the process request and determines the validity of each transaction.

For each valid transaction, Transaction Import imports the transactions and creates corresponding expenditure records in the Oracle Projects expenditure tables; expenditure records include expenditure batches, expenditures, and expenditure items. For each invalid transaction, Transaction Import rejects the transaction and updates the transaction in the interface table with a status of *Rejected* and the rejection reason. You should update rejected items in the interface tables or your external system and import the transactions again.

If the transaction source for the Transaction Import is purgeable, Transaction Import deletes the corresponding transactions from the interface table. If the transaction source is not purgeable, Transaction Import updates the status of the corresponding transaction in the interface table with a status of *Accepted*.

For detailed information on importing data into Oracle Projects using Transaction Import, including interface table descriptions, see: Overview of Transaction Import: page 14 – 12.

Process Submission

You submit the PRC: Transaction Import process from the Submit Request window. See: Submitting Requests: page 10 – 2.

Process Parameters

Transaction Source. Enter the transaction source for the transactions that you want to import into Oracle Projects.



Warning: Do not use the AP INVOICES transaction source when you run the PRC: Transaction Import program. This transaction source is intended only for use by the Oracle Projects processes to import Oracle Payables invoices.

Batch Name. Enter the name of a specific batch of transactions that you want to import into Oracle Projects. You can choose only batches having the transaction source specified for the Transaction Source parameter.



Suggestion: For increased performance, submit several concurrent Transaction Import requests specifying different

batch names rather than submitting one request for a particular transaction source.

Reports

The following reports show you the results of this process:

- **The Transaction Import Exception Report.** Lists all transactions that were rejected during the Transaction Import process. For each rejected transaction, this report displays the key field values of the transaction in the interface table. It also displays the rejection reason code that identifies the cause of the transaction's rejection. For reference, the last page of this report prints a key of rejection reason codes and their meanings.

If any expenditure item fails validation, Oracle Projects rejects the entire expenditure and updates each expenditure item with a status of R (Rejected). To locate all rejected transactions within an expenditure batch, use a SQL*Plus select statement on the EXPENDITURE_ID column and specify the expenditure id of the rejected item. Then update the TRANSACTION_STATUS_CODE column to remove the R status. Or you can import the corrected items again, so that Oracle Projects creates a new record for the expenditure items instead of updating the rejected records.

- **The Transaction Import Report.** Displays a summary of the expenditures successfully imported into Oracle Projects and the total number of expenditure batches created. For each expenditure batch, the report lists the name, the expenditure batch ending date, and the total number of expenditures created.



Suggestion: To view detailed information about the expenditures created in Oracle Projects, submit the AUD: Pre-Approved Expenditures Entry Audit report.

See Also

Using Transaction Import: page 14 – 13

Transaction Import Interface: page 14 – 34

Update Project Summary Amounts

This process updates the project summary amounts with new cost, commitment, and revenue transactions and any new baselined budget versions.

You can run this process as many times as you want.

Process Submission

From the Submit Request window, submit one of the PRC: Update Project Summary Amounts processes:

- To submit the process for one project, submit the PRC: Update Project Summary Amounts for a Single Project process.
- To submit the process for a range of projects, submit the PRC: Update Project Summary Amounts process.
- To submit the process after making changes in a resource list, submit the PRC: Update Project Summary Amounts After a Resource List Change process.

See: Submitting Requests: page 10 – 2

Process Parameters

Accumulate Cost. Enter Y if you want the Update Project Summary Amounts process to summarize cost amounts.

Accumulate Revenue. Enter Y if you want the Update Project Summary Amounts process to summarize revenue amounts.

Accumulate Budgets. Enter Y if you want the Update Project Summary Amounts process to summarize budget amounts.

Accumulate Commitments. Enter Y if you want the Update Project Summary Amounts process to summarize commitment amounts.

From Project Number / To Project Number. Enter the range of project numbers that you want to include. You can leave either or both parameters blank. See: Entering a Project Number Range Parameter: page 11 – 5.

Project Number. Enter the name of the project for which you want to submit the Update Project Summary Amounts for a Single Project process.

Budget Type. Select the budget type that you want the Update Project Summary Amounts process to use.

Expenditure Type Class. If you are running the Update Project Summary Amounts process for one project, you can optionally select one expenditure type class that the Update Project Summary Amounts process will use.

Resource List Name. If you are running the Update Project Summary Amounts After a Resource List Change process, you can optionally select one resource list that the Update Project Summary Amounts process will use.

Through Date. Optionally enter an end date for the process.

If you do not enter a date, or the date you enter is equal to or later than the current reporting period end date, the process summarizes all selected data through the current reporting period.

If you enter a date earlier than the end date of the current reporting period, the process summarizes data through the date you enter.

Generate Report Output. Enter Y if you want the process to generate a report.

Reports

The following reports show you the results of this process. These reports show amounts in the project currency.

- **Update Project Summary Amounts Report.** Lists all costs, revenue, budget amounts, and commitments that were summarized during the process.

This report also lists *future period transactions*. Future period transactions are transactions whose PA Period is later than the current PA reporting period. Any transactions appearing in this section have not been summarized by the Update Project Summary Amounts process, and will not be reflected in the Project Status Inquiry window. To summarize these transactions, you must set the current reporting period to a PA Period equal to or later than the PA Period of these transactions. See: Setting the PA Reporting Period: page 17 – 73.

- **Update Project Summary Amounts Log.** The Update Project Summary Amounts log can be viewed by choosing Request Log from the Completed Requests window. The log displays amounts before and after the Update Project Summary Amounts process was run.

Index

A

account generator

- accounting transactions, 13 – 51
- AutoAccounting, and, 17 – 323 to 17 – 330
- expense report, 17 – 311
- functions
 - segment lookup set value, 17 – 320
 - SQL, 17 – 326
- Oracle Payables, for, 17 – 303
- Oracle Purchasing, for, 17 – 302
- overview, 17 – 302
- processes
 - backing up, 17 – 304, 17 – 306
 - renaming, 17 – 322
 - segment lookup value, 17 – 320
 - using FlexBuilder rules, 17 – 306
 - viewing attributes, 17 – 316
- purging runtime data, 17 – 322
- setting up, 17 – 306, 17 – 322
- supplier invoice, 17 – 306
- testing, 17 – 320

accounting flexfields. *See* sets of books

accounting lines, viewing, 4 – 49, 8 – 43

accounting transactions

- capital project costs, 7 – 36
- costs and revenue, 13 – 15
- dates for, 15 – 3 to 15 – 10
- distribution lines, 13 – 51
- expense reports, 13 – 26
- invoices, 13 – 64

Accounts Payable. *See* Oracle Payables

Accounts Receivable. *See* Oracle Receivables

Activity Management Gateway

- See also* transaction import
- data integrity controls, 14 – 4
- function security for, C – 11
- overview, 14 – 2
- product source, 2 – 35
- profile options, 18 – 46
- setting up for Oracle Projects integration, 18 – 71
- Source Products window, 14 – 5
- source reference, 2 – 35

activity-based costing. *See* mass allocations

actuals

- amounts, cost and revenue, 9 – 11
- copying to budget amounts, 3 – 29

addresses

- employee, 17 – 51
- invoice, bill-to and shipping, 8 – 54

adjustments

- assets lines, 7 – 31
- billing. *See* adjustments, invoices
- burden transactions, 4 – 34
- cancelling invoices, 8 – 65
- capital project costs, 7 – 31
- credit memos, 8 – 66
- currency attributes, 4 – 31
- expenditure items
 - converted, 4 – 32
 - marking, 4 – 37
 - multi-currency, 4 – 33
 - overview, 4 – 26
 - types of, 4 – 27 to 4 – 31
 - viewing, 4 – 47
- expense reports, 13 – 36
- interfacing to other products, 4 – 41

- invoices, 4 – 44, 8 – 64, 8 – 65
- mass, 4 – 55
- overtime, 18 – 26
- processing, 4 – 38
- purchase orders, 13 – 55
- requisitions, 13 – 55
- restrictions, 4 – 26
- revenue, 8 – 40
- reversals and, 4 – 34
- supplier invoices, 13 – 55
- advances, 13 – 34
- ADW (Applications Data Warehouse). *See*
Oracle Project Analysis Collection Pack
Implementation Guide
- agreements
 - accruing revenue against, 8 – 34
 - Agreement window, 8 – 6, 8 – 10
 - copying, 2 – 33
 - entering, 8 – 10
 - interfacing to Receivables, 13 – 65
 - types, 10 – 4
 - types of, 17 – 135
 - viewing funding history, 8 – 12
- allocations
 - See also* autoallocations
 - amount class, 6 – 10
 - basis
 - interaction with targets, 6 – 12
 - methods, 6 – 6, 6 – 15
 - cross charge and, 6 – 12
 - extensions
 - basis, 19 – 137
 - dependencies, 19 – 140
 - descriptive flexfield, 19 – 138
 - offset projects and tasks, 19 – 135
 - offset tasks, 19 – 133
 - source, 19 – 129
 - target, 19 – 131
 - incremental and full
 - and system performance, 6 – 26
 - example, 16 – 3 to 16 – 7
 - overview, 6 – 26
 - mass, 5 – 46
 - missing amounts, 6 – 26
 - offsets, defining, 6 – 14
 - overview, 6 – 2
 - precedence of, 6 – 12, 6 – 13, 6 – 19
 - previous amounts, 6 – 26
 - rules
 - copying, 6 – 17
 - defining, 6 – 5
 - deleting or modifying, 6 – 18
 - naming, 6 – 5
 - overview, 6 – 4
 - viewing, 6 – 17
 - runs
 - creating, 6 – 20
 - releasing, 6 – 21
 - reversing, 6 – 24
 - viewing, 6 – 22
 - sources
 - defining, 6 – 9
 - GL accounts, 6 – 14
 - targets
 - defining, 6 – 12
 - interaction with basis, 6 – 12, 6 – 13
 - transactions (expenditure items)
 - generating, 6 – 19, 11 – 25
 - viewing, 6 – 24
 - troubleshooting, 6 – 50
 - viewing
 - rules, 6 – 17
 - runs, 6 – 22
 - transactions (expenditure items), 6 – 22, 6 – 24
- AMG. *See* Activity Management Gateway
- amount class, 6 – 10
- APIs. *See* Activity Management Gateway
- application programming interface. *See*
Activity Management Gateway
- Applications Data Warehouse. *See* Oracle
Projects Analysis Collection Pack
Implementation Guide
- asset lines
 - See also* assets
 - adjusting, 7 – 27, 7 – 31, 7 – 32
 - changing asset assignment, 7 – 28
 - creating for Oracle Assets, 7 – 23
 - extension to assign assets to, 19 – 144 to 19 – 146
 - generating, 7 – 23 to 7 – 27, 11 – 27

- reversing capitalized, 7 – 32
- reviewing, 7 – 27
- sending to Oracle Assets, 7 – 29
- splitting, 7 – 28
- summarizing, 7 – 23
- assets
 - See also* asset lines; usages
 - abandoning, 7 – 34
 - Assets window reference, 7 – 13
 - assignment
 - changing, 7 – 28
 - defining, 7 – 27
 - assignments, example, 7 – 21
 - capitalized, reversing, 7 – 32
 - costs
 - adjusting after capitalization, 7 – 31
 - and CIP, 7 – 36
 - summarizing by group level, 7 – 16
 - creating, 7 – 7, 7 – 9
 - defining, 7 – 12, 17 – 91
 - expenditure type class, 17 – 79
 - extension, 19 – 144 to 19 – 146
 - grouping levels for, 7 – 16 to 7 – 21
 - interfacing, 11 – 38
 - options for, 2 – 50, 2 – 51
 - placing in service, 7 – 22
- attachments, 2 – 33, E – 2
- audits
 - dates processed, 15 – 5
 - reporting, 4 – 26
 - reports of, 10 – 18, 10 – 38, 10 – 39
- AutoAccounting
 - account generator, and, 17 – 323 to 17 – 330
 - assigning values and parameters, 17 – 324
 - deriving values, 17 – 325
 - functions
 - burden cost, 17 – 271
 - event revenue, 17 – 293
 - expense report costs, 17 – 278, 17 – 280, 17 – 281
 - labor costs, 17 – 260, 17 – 268
 - labor revenue, 17 – 275
 - list of, 17 – 238 to 17 – 240
 - listing, 10 – 4
 - revenue and invoice accounts, 17 – 295
 - supplier invoice revenue, 17 – 292
 - supplier invoices, for, 17 – 289, 17 – 290, 17 – 292
 - usage costs, 17 – 283, 17 – 285
 - usage revenue, 17 – 286, 17 – 288
 - labor, costs, 5 – 11, 5 – 13
 - lookup sets
 - defining, 17 – 250 to 17 – 253
 - examples, 17 – 279, 17 – 284, 17 – 288, 17 – 291
 - list of, 10 – 4, 10 – 11
 - retrieving values for, 17 – 320
 - multilingual support for, 15 – 59
 - multiple organizations and, 15 – 54, 15 – 55
 - Oracle Receivables, 18 – 60
 - overview, 17 – 237 to 17 – 240
 - parameters, 17 – 241
 - rules
 - See also* AutoAccounting, lookup sets
 - assigning to transactions, 17 – 252, 17 – 253
 - defining, 17 – 240
 - intermediate values, 17 – 240
 - list of, 10 – 5
 - SQL select statements, 17 – 245
 - window reference, 17 – 248, 17 – 254
 - segments, 10 – 5
 - setting up, 17 – 239
 - using SQL functions, 17 – 326
- autoallocations
 - See also* allocations
 - Oracle Workflow for
 - overview, 6 – 36 to 6 – 37
 - processes, 6 – 38 to 6 – 49
 - unsupported processes, 6 – 36
 - order of steps, 6 – 31
 - prerequisites, 6 – 29
 - profile option, 6 – 29, B – 8
 - sets of rules
 - creating, 6 – 28, 6 – 30
 - processing, 6 – 32
 - step-down, failure of, 6 – 30
 - viewing status of, 6 – 34
 - submitting, 6 – 32
 - terminology, 6 – 28
- AutoInvoice, 13 – 60, 13 – 65, 18 – 55
 - See also* Oracle Receivables

automatic events, 19 – 92

B

baselining. *See* budgets, baselining

billing

See also currencies

burden

schedules, 5 – 21

transactions, 5 – 43

cost-to-cost, 17 – 165

cycles

defining, 17 – 131

window reference, 17 – 131

extensions

assigning to projects, 2 – 55

concepts, 19 – 74 to 19 – 83

debugging, 19 – 93 to 19 – 97

deriving cycle dates, 19 – 98

implementing, 19 – 70 to 19 – 75

overview, 19 – 67 to 19 – 70

views and procedures, 19 – 84 to 19 – 91

holds, 4 – 28

intercompany

controls, 12 – 18

overview, 12 – 33

procedures for, 12 – 70

processing flow, 12 – 28

processing methods, 12 – 15

overview, 1 – 3

projects (providers and receivers), 2 – 44

rates, 2 – 57, 2 – 58, 2 – 62

reports, 10 – 29 to 10 – 37

schedules

burden, 5 – 21

defining, 17 – 137

rates, 15 – 54

standard, 2 – 56

setting up, 2 – 51, 17 – 130, 17 – 201

surcharges, 16 – 14

tax codes, 18 – 66

titles, 2 – 60, 2 – 61

billing schedules, rates, list of, 10 – 13

borrowed and lent amounts

See also AutoAccounting; cross charge;
inter-project billing

cross charge, 12 – 15, 12 – 67

distributing, 11 – 14

budgets

baselining, 3 – 36

Budget Lines window, 3 – 19

calculating amounts, 3 – 26

change reasons, 17 – 173

controls on, 17 – 198

copying, 3 – 26 to 3 – 32

creating and revising, 3 – 13

date range, 3 – 3

drafts

baselining, 3 – 36

creating, 3 – 15 to 3 – 19

deleting, 3 – 32

submitting, 3 – 32

entry methods, 17 – 169

examples, 3 – 5

extensions, 3 – 34, 19 – 14 to 19 – 21

history, 3 – 10

lines

entering, 3 – 19 to 3 – 25

revising and deleting, 3 – 25

overview, 3 – 2 to 3 – 12

PA periods, 17 – 71

period-phased, 3 – 20

reviewing, 3 – 39

revising, 3 – 25, 3 – 38

security, 3 – 9

summary amounts, 9 – 12

time-phased, 3 – 3, 3 – 20, 3 – 28

types, 3 – 10

cost-to-cost revenue, 17 – 165

defining, 17 – 168

example, 17 – 169

verification extension, 3 – 34, 19 – 116

versions, 3 – 10

work breakdown structure, 3 – 2

workflows for

default process, 13 – 101

overview, 13 – 99

burden schedules

adding organizations, 17 – 45

- correcting, 17 – 124
- defining, 17 – 117
- multiple organizations, for, 15 – 57
- order of precedence, 5 – 47 to 5 – 49
- overriding, 2 – 50
- burden structures, 17 – 113 to 17 – 117
- burden transactions
 - adjusting, 4 – 34
 - cost distribution, 11 – 23
 - expenditure item date, 5 – 33
 - importing, 14 – 18
 - interfacing, 11 – 58
 - recalculating, 4 – 29
 - setting up, 17 – 79
- burdened costs
 - calculating, 5 – 7
 - codes, defining, 17 – 112
 - creating and distributing, 11 – 10
 - distributing, 11 – 22
 - interfacing, 11 – 57
 - organization for, 5 – 48
 - recalculating, 4 – 29
 - tieback, 11 – 72
 - viewing, 17 – 125
- burdening
 - accounting transactions, 15 – 25
 - algorithm, 15 – 23
 - application programming interface, 19 – 147
 - billing transactions, 5 – 43
 - budgets for, 15 – 21
 - costs
 - accounting for, 5 – 31, 5 – 36, 5 – 41
 - basis for, 15 – 26
 - building, 5 – 17
 - calculating, 5 – 28
 - overview, 5 – 15 to 5 – 18
 - process flow, 5 – 44
 - reporting, 5 – 42, 15 – 21 to 15 – 35
 - storing and viewing, 5 – 30 to 5 – 53
 - expenditure items, 5 – 30
 - extension for costing, 19 – 56
 - frequently asked questions, 5 – 45
 - hierarchy, setting up, 17 – 40
 - income statements for, 15 – 22
 - labor costs, 5 – 10

- overview, 5 – 16
- reporting
 - project management, 15 – 30 to 15 – 35
 - to GL, 15 – 21, 15 – 26
- revenue, 5 – 43
- schedules for, 5 – 21 to 5 – 25, 5 – 28 to 5 – 30
- setting up, 2 – 49 to 2 – 51, 15 – 36 to 15 – 40, 17 – 110
- storing and viewing, setting up for, 5 – 35
- structures for, 5 – 19 to 5 – 21
- summaries of, 5 – 32
- testing, 5 – 47
- business groups
 - burden schedules, 17 – 117
 - integrating with other applications, 17 – 42
 - organizations, 17 – 37
 - project burdening hierarchy, 17 – 40
 - resource lists, defining, 17 – 174
 - setting up, 17 – 58

C

- capital projects
 - See also* asset lines; assets
 - about, 2 – 8
 - accounting for costs, 7 – 36
 - asset lines
 - assigning, 7 – 27
 - generating summary, 7 – 23
 - sending to Assets, 7 – 29
 - charging expenditures to, 7 – 6
 - copying, 2 – 32
 - defining assets for, 7 – 12
 - grouping levels for, 7 – 16 to 7 – 21
 - options for, 2 – 50
 - overview, 7 – 2
 - placing assets in service, 7 – 6, 7 – 22
 - processing flow, 7 – 3
 - purchase orders for, 7 – 4
 - reversing capitalized assets, 7 – 32
 - setting up, 17 – 200
 - viewing in Oracle Assets, 13 – 76
- capitalization
 - for capital project WBS levels, 7 – 10
 - tasks, 2 – 14
- case studies
 - allocations, 16 – 3

- billable status default, 16 – 12
- billing surcharges, 16 – 14
- cost accrual, 8 – 90
- organization hierarchy, 16 – 31
- summarizing amounts, 16 – 20
- transaction controls, 16 – 8, 16 – 10
- chart of accounts, 17 – 28 to 17 – 33
- CIP, assets
 - costs, 7 – 36
 - overview, 7 – 2
 - setting up, 17 – 200
- class categories and codes
 - defining, 17 – 186 to 17 – 188
 - in projects, 2 – 42
 - list of, 10 – 6
 - project type, 2 – 8
- client extensions
 - billing, example, 8 – 80
 - implementing, 19 – 4 to 19 – 10
 - overview and list, 19 – 2 to 19 – 10
 - syntax, 19 – 7
- Column Setup window, 17 – 219
- commitments
 - amounts, 9 – 14
 - extension for tracking changes, 19 – 58
 - from external systems, 18 – 29
 - from Oracle Payables, 13 – 52
 - reviewing details, 9 – 9
 - views, 18 – 29
- compensation rules
 - defining, 17 – 104, 18 – 9
 - list of, 10 – 6
- construction in process. *See* CIP
- contact types, 10 – 12, 17 – 194
- contract projects
 - about, 2 – 8
 - billable tasks, 2 – 14
 - funding, 8 – 5, 8 – 18 to 8 – 22
 - overview of billing for, 8 – 2
 - reviewing invoices for, 9 – 10
 - setting up, 17 – 202
 - billing, 17 – 201 to 17 – 202
 - distribution rules, 17 – 202
 - project type, 17 – 196
- Control Actions window, 14 – 4
- control totals, 4 – 21
- Controlling Billing by Top Task window, 8 – 16
- copying
 - expenditure batches, 4 – 20
 - projects, 2 – 32
 - resource lists, 17 – 178
 - timecard batches, 4 – 20
- Cost Audit Report. *See* reports and listings, GL Cost Interface Audit
- cost plus. *See* burdening
- cost rates
 - employee, 17 – 106
 - expenditure type, 17 – 101
 - for multiple organizations, 15 – 53
 - labor cost multipliers, 17 – 105, 17 – 107
 - list of, 10 – 7
 - multi-organization, 17 – 101, 17 – 106
 - overrides, 17 – 102
- costing
 - burden schedules, 2 – 49, 5 – 21 to 5 – 28
 - burden transactions, 5 – 7
 - labor, 5 – 8 to 5 – 13
 - overview, 1 – 2, 5 – 2 to 5 – 4
- costs
 - accruing
 - accounting for, 8 – 81
 - custom procedures for, 8 – 92 to 8 – 94
 - extension for identification, 19 – 165
 - implementation example, 8 – 84 to 8 – 89
 - overview, 8 – 80
 - bases and types, 17 – 110
 - burdening, 5 – 16
 - overview, 5 – 15 to 5 – 18
 - calculating, 5 – 5 to 5 – 8
 - distributing, 13 – 25
 - GL date for, 13 – 26
 - indirect. *See* indirect costs
 - interfacing to GL, 13 – 14
 - labor, 17 – 78
 - options for interface, 17 – 64
 - tying back from GL, 13 – 17
 - unrelated to projects. *See* indirect costs
- credit
 - memos, 8 – 66, 13 – 62
 - receivers, 2 – 55, 18 – 63

- types, 10 – 6, 18 – 61
 - setting up, 17 – 160
- cross charge
 - See also* inter–project billing
 - adjustments, 12 – 30
 - allocations and, 6 – 5, 6 – 12
 - controls
 - operating unit, 12 – 16
 - provider / receiver, 12 – 55
 - distributions, 12 – 79
 - extensions for
 - cost accrual ID, 19 – 165
 - determining transfer price, 19 – 157
 - overriding processing method, 19 – 154
 - overriding providers and receivers, 19 – 152
 - overriding transfer price, 19 – 160
 - overriding transfer price currency, 19 – 163
 - glossary of terms, 12 – 11
 - options, 12 – 52
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processes, 12 – 22
 - processing
 - controls, 12 – 19
 - methods, 12 – 15
 - options, 12 – 59
 - overview, 12 – 62
 - setting up, 12 – 38
 - transactions
 - adjusting, 12 – 81
 - creating, 12 – 64
 - types of, 12 – 14
 - transfer pricing, 12 – 21
- currencies
 - attributes, changing, 4 – 31
 - converting, 4 – 59
 - Currencies window, 17 – 7
 - defining, 17 – 7, 18 – 44
 - extensions, transfer price currency, 19 – 163
 - formats, 17 – 214, 17 – 217, 17 – 221
 - implementation options, 17 – 60
 - importing transactions in foreign, 14 – 20
 - invoice, 2 – 44, 8 – 64

- multiple
 - adjusting transactions for, 4 – 33
 - billing in, 2 – 44, 17 – 138, 18 – 45
 - interfacing to GL, 13 – 13
 - invoice formats in, 17 – 150
 - multinational setup, 2 – 45
 - reporting, 12 – 31
 - setting up for, 18 – 44
- rounding, 14 – 22, 17 – 141
- customers
 - applying tax, 18 – 66
 - defining relationships, 17 – 193
 - in projects, 2 – 43
 - in templates, 2 – 26
 - integrating with other applications, 17 – 54
 - listing relationships, 10 – 12
 - merging, 13 – 70
 - setting up, 17 – 54

D

- dates
 - accounting, 15 – 3 to 15 – 10
 - effective, 2 – 42, 17 – 25
 - project, 2 – 10, 2 – 20, 2 – 42
 - task, 2 – 13
- debugging, 6 – 29, 10 – 3, B – 8
- descriptive flexfields
 - allocation, 19 – 138
 - Invoice Transaction, B – 19
 - list of, D – 2
 - mapping extension, 19 – 60
 - overview, 17 – 236
- direct projects. *See* contract projects
- distribution
 - lines, for burdened costs, 5 – 36
 - sets for invoices, 18 – 53
- drafts. *See* budget drafts
- drilldown to
 - commitments, actuals, events, 9 – 7
 - Oracle General Ledger, 4 – 49 to 4 – 51
 - Oracle Payables, 4 – 48, 9 – 9

- E**
- employees
 - adding, 13 – 79
 - as suppliers, 13 – 23, 18 – 51
 - assignments, list of, 10 – 7
 - changing name for, 13 – 80
 - compensation rules, 17 – 104
 - cost rates, 17 – 106
 - integrating with other applications, 17 – 34, 17 – 51
 - key members, assigning, 2 – 46
 - reports, 10 – 28
 - revenue credit, 17 – 160
 - setting up, 17 – 51, 18 – 61
 - terminating, 13 – 80
 - time-off costs, 17 – 128
 - events
 - automatic, 17 – 167, 19 – 92
 - entering, 8 – 23
 - function security, 8 – 26
 - reviewing, 8 – 23, 9 – 9
 - types
 - defining, 17 – 162
 - list of, 10 – 7
 - windows
 - Event Details, 8 – 26
 - Event Revenue Dist. Lines, 8 – 26
 - Event Summary, 8 – 24
 - write-on, 8 – 53
 - exchange rates, setting up, 17 – 60, 17 – 62
 - expenditure batches
 - copying, 4 – 20
 - correcting (reworking), 4 – 24
 - creating, 4 – 13
 - Expenditure Batches Summary window, 4 – 21
 - Expenditure Batches window, 4 – 12
 - function security, C – 7
 - list of, 10 – 18
 - overview, 4 – 9 to 4 – 25
 - report, 10 – 17
 - reversing, 4 – 23
 - reviewing, 4 – 22
 - status, 4 – 10
 - submitting, 4 – 21
 - verifying, 4 – 21
 - windows, 4 – 12, 4 – 20
 - expenditure inquiry. *See* expenditure items; expenditures
 - expenditure items
 - adjusting, 4 – 53, 7 – 31
 - converted, 4 – 32
 - capitalizable, 4 – 68
 - control functions, 7 – 11
 - controls on, 4 – 66
 - dates, 5 – 33, 15 – 3 to 15 – 10
 - Expenditure Items window, 4 – 51
 - splitting, 4 – 56
 - transferring, 4 – 55
 - validating, 4 – 3
 - viewing, 4 – 47 to 4 – 53
 - Expenditure Items window, 4 – 51
 - expenditure types
 - categories, 17 – 82
 - classes, setting up, 17 – 78 to 17 – 80
 - cost rates, 17 – 101
 - defining, 17 – 87
 - in AutoAccounting rules, 17 – 279, 17 – 284, 17 – 288, 17 – 291
 - list of, 10 – 8
 - revenue category, 17 – 83
 - expenditures
 - adjusting, 4 – 26 to 4 – 46
 - amounts, 4 – 2
 - approving, 19 – 142
 - categories, 17 – 82
 - classifications, 4 – 2
 - cost rates, list of, 10 – 7
 - cycle start day, 17 – 63
 - entering, 4 – 8
 - organizations for, 17 – 65
 - overview, 4 – 2
 - preapproved. *See* expenditure batches
 - rejected, 4 – 3, 4 – 4
 - validation, 4 – 3
 - viewing, 4 – 47 to 4 – 53
 - expense reports
 - adjusting, 13 – 36
 - advances, 13 – 34
 - approving, 19 – 142
 - batches, naming, 13 – 39

- calculating costs, 5 – 6
- dates, 15 – 5 to 15 – 9
- distributing, 11 – 16
- distributing costs, 13 – 25
- importing, 14 – 25
- integrating with Oracle Payables, 13 – 21, 18 – 50
- interfacing to
 - Oracle General Ledger, 13 – 30, 13 – 33
 - Oracle Payables, 11 – 44, 13 – 24
- mailing address, 17 – 51
- prepayments, 13 – 34
- purging, 13 – 37
- summarizing lines, B – 16
- tieback from Oracle Payables, 11 – 67
- tying back from Oracle Payables, 13 – 29
- viewing in Oracle Payables, 13 – 38
- exporting to spreadsheet or text file, 9 – 3
- extensions. *See* client extensions

F

- factoring, 9 – 5
- Find Tasks window, 2 – 37
- fixed assets. *See* Oracle Assets
- FlexBuilder. *See* Account Generator
- flexfields
 - See also* descriptive flexfields; key flexfields; sets of books
 - Account Generator: Purge Runtime Data profile option, B – 18
 - job, 17 – 47 to 17 – 49
- folders, A – 2
- forecasting, 11 – 9
- foreign currency. *See* currencies
- Fremont Corporation
 - about, 17 – 5, 17 – 23
 - accounting flexfield, 17 – 29
 - AutoAccounting example, 17 – 256 to 17 – 286
 - chart of accounts, 17 – 29
 - organization hierarchy, 17 – 40
 - set of books, 17 – 28
- fringe benefits. *See* indirect projects

- function security. *See* security
- functions. *See* AutoAccounting
- Fund Projects window, 8 – 12
- future period transactions, 11 – 77

G

- general ledger. *See* Oracle General Ledger
- GL date, expense reports, 13 – 26
- GL periods, 17 – 69
- grouping levels for capital projects, 7 – 16 to 7 – 21

H

- hard limits, 8 – 11, 8 – 57, 19 – 92
- human resources. *See* Oracle Human Resources

I

- implementation. *See* implementation options; setting up
- implementation options
 - billing, 17 – 65
 - business group, 17 – 58
 - currencies, 17 – 60
 - exchange rates, 17 – 60, 17 – 62
 - expenditure cycle start day, 17 – 63
 - Implementation Options window, 17 – 57
 - interface to GL, 17 – 64, 17 – 65
 - invoices, 17 – 66
 - list of, 10 – 8
 - organization hierarchies
 - default reporting, 17 – 59
 - expenditure/event, 17 – 65
 - project/task owning, 17 – 63
 - overtime calculations, 17 – 64
 - period types
 - PA, 17 – 59
 - summarization, 17 – 58
 - project setup, 17 – 62
 - set of books, 17 – 58
 - system, 17 – 58
 - tax defaults, 17 – 68

- implementation wizard, 17 – 5
- importing
 - See also* Activity Management Gateway; integration; interfaces; transaction import
 - invoices, 13 – 27
 - manufacturing costs, 14 – 19
 - transactions, 14 – 11
- income statement, burden cost accounting, 15 – 22
- indirect costs
 - employee benefits, 17 – 128
 - labor
 - administrative, 17 – 126
 - overtime, 18 – 2
- indirect projects
 - about, 2 – 8
 - for multiple organizations, 15 – 56
 - multi-organization, 17 – 126
 - setting up, project type, 17 – 196
- integration
 - See also* interfaces
 - capital projects, 7 – 3
 - external systems, 14 – 2, 18 – 29
 - Microsoft Project, 14 – 7
 - Oracle Assets, 7 – 7, 7 – 29, 13 – 72
 - Oracle General Ledger, 13 – 10, 17 – 64, 17 – 65
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 7 – 5, 13 – 21, 18 – 51
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Purchasing, 7 – 4, 17 – 302
 - Oracle Receivables, 13 – 60
 - Oracle Workflow, 13 – 88
- inter-project billing
 - See also* cross charge
 - glossary of terms, 12 – 11
 - invoices, adjusting, 12 – 91
 - options, 12 – 54
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processing
 - methods, 12 – 15
 - overview, 12 – 88
 - selecting projects for, 2 – 44
 - setting up, 12 – 38
 - transactions, types of, 12 – 14
- intercompany, accounting transactions, 13 – 18
- intercompany billing, invoice formats, 17 – 150
- interest expense. *See* corporate expenses
- interface tables, 14 – 34, 14 – 36
- interfaces
 - See also* integration
 - audit reports, 10 – 38 to 10 – 41
 - costs, 13 – 14, 17 – 64
 - Oracle Assets, 7 – 29, 13 – 72
 - Oracle General Ledger
 - invoices, 13 – 30, 13 – 33, 13 – 67
 - overview, 13 – 10
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 11 – 42
 - expense reports, 13 – 24
 - supplier invoices, 13 – 45
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Receivables, 13 – 60, 13 – 64
 - overview, 13 – 2, 14 – 2
 - revenue, 13 – 14, 17 – 65
- intermediate values. *See* AutoAccounting rules
- inventory transactions, 11 – 23, 17 – 79
- invoices
 - See also* adjustments; supplier invoices
 - accrual, 2 – 52
 - adjusting, 8 – 64, 8 – 68, 12 – 91
 - adjustments, distributing, 11 – 20
 - approving, 8 – 61, 12 – 73, 19 – 100
 - batch source, 13 – 61, 17 – 67
 - cancelling, 8 – 65, 8 – 67
 - capital project, 7 – 5
 - centralized collection, 15 – 44
 - components of, 8 – 54 to 8 – 58
 - credit memos, 8 – 66
 - currency, 2 – 44
 - changing attributes, 8 – 64
 - dates, 15 – 3 to 15 – 10
 - discounting, 8 – 57
 - extension, 19 – 100
 - formats
 - creating, 17 – 148
 - examples, 17 – 150, 17 – 156

- list of, 10 – 8
- generating, 11 – 30
- hard limits, 8 – 57
- intercompany
 - approving and releasing, 12 – 73
 - generating, 11 – 36
- interfacing to
 - Oracle General Ledger, 13 – 67
 - Oracle Receivables, 11 – 48, 13 – 60, 13 – 63, 13 – 64
- Invoice Summary window, 8 – 59, 8 – 73
- Invoices window, 9 – 10
- lines, splitting and transferring, 8 – 67
- numbering, 17 – 66
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- printing, 8 – 63, 17 – 153
- processing, 17 – 67
- purging interface tables, 18 – 56
- releasing, 8 – 55, 8 – 62, 12 – 73, 19 – 100
- retention, 8 – 57
- reviewing, 8 – 58, 10 – 29
- rounding, 17 – 141
- splitting, 8 – 67
- tax
 - applying, 18 – 66
 - calculating, 13 – 67
 - codes, 18 – 66
- tieback, 11 – 69, 13 – 66
- transactions
 - for capital projects, 7 – 5
 - types of, 8 – 56, 11 – 12, 13 – 61, 18 – 57
- transferring, 8 – 67
- viewing, 8 – 70 to 8 – 73
- writing off, 8 – 65

invoicing

- See also* invoices
- based on funding, 8 – 53
- decentralized, 18 – 57
- generating for projects, 8 – 50
- organization level for, 18 – 55
- overview, 8 – 48
- prerequisites, 8 – 49

J

- job flexfields, 17 – 47 to 17 – 49
- jobs
 - assigning, 2 – 60
 - bill rate, 2 – 58
 - defining flexfields, 17 – 47 to 17 – 49
 - integrating with other applications, 17 – 34
 - list of, 10 – 9
 - title, 2 – 61
 - titles, defining, 17 – 47 to 17 – 49
- Journal Import (GL), 13 – 16

K

- Key Flexfield Segments window, 17 – 48
- key members, 2 – 23, 2 – 46

L

- labor
 - See also* labor costs
 - AutoAccounting for, 5 – 11, 5 – 13
 - extensions
 - billing, 19 – 46 to 19 – 49
 - costing, 19 – 31 to 19 – 33
 - transaction, 19 – 34 to 19 – 45
- labor costs
 - administrative, 17 – 126
 - calculating, 5 – 5
 - costs
 - overriding distributions, 5 – 11
 - reports for, 5 – 13
 - distributing, 5 – 8 to 5 – 13, 11 – 18
 - expenditure type classes, 17 – 78
 - extensions, 19 – 31 to 19 – 33
 - interfacing, 11 – 50
 - multipliers, 2 – 59, 17 – 107
 - list of, 10 – 9
 - overtime, 5 – 12
 - rates, list of, 10 – 9
 - security, 15 – 13
 - straight time, 5 – 10
 - tieback, 11 – 70
- labor revenue, 17 – 275
 - See also* AutoAccounting

- languages
 - See also* multilingual support
 - multiple, 15 – 58
- liability account, 13 – 26
- limiting, revenue accrual, 8 – 11
- listings. *See* reports and listings
- locations
 - integrating with other applications, 17 – 36
 - work site, 2 – 14
- lookup sets. *See* AutoAccounting
- lookups, 10 – 11
- Lookups window, 17 – 76

M

- manufacturing costs, importing, 14 – 19
- mass adjustment of expenditures, 4 – 55
- mass allocations, 5 – 46
- Mass Update Batches window, 2 – 64
- menu paths, windows, A – 2
- merging customers, 13 – 70
- Microsoft Project, 14 – 7
- MLS. *See* multilingual support
- MRC. *See* currencies, multiple
- multi-currency
 - See also* currencies, multiple
 - setup, 18 – 44
- multi-org. *See* multiple organizations
- multilingual support, 15 – 58
 - AutoAccounting and, 15 – 59
 - lookups, 17 – 76
- multiple organizations
 - See also* organizations
 - AutoAccounting rules, 17 – 258
 - bill rate schedules, 17 – 137
 - burden schedules, 17 – 117
 - cost rate overrides, 17 – 102
 - cost rates, 17 – 101, 17 – 106
 - indirect projects, 17 – 126
 - numbering
 - invoices, 17 – 66
 - projects, 17 – 63
 - operating units in, 15 – 48, 15 – 51

- options, 17 – 57
- overview, 15 – 46
- PA periods, 17 – 74
- profile options for, 15 – 56, 17 – 234
- project templates, 2 – 16
- project types, 17 – 197
- resource lists, 17 – 174
- setting up, 15 – 52
- terminology, 15 – 46

Multiple Reporting Currencies. *See* currencies, multiple

N

- navigation paths, windows, A – 2
- non-labor resources
 - cost rates, list of, 10 – 7
 - list of, 10 – 10
 - setting up, 17 – 80, 17 – 91
 - window, 17 – 91
- number formats, 17 – 214, 17 – 217, 17 – 221
- numbering methods
 - invoices, 17 – 66
 - projects, 17 – 62
 - tasks, 2 – 13

O

- OIT (Oracle Integration Toolkit). *See* Activity Management Gateway
- operating units
 - adding, 15 – 51
 - multiple, 15 – 48
 - setting up for cross charge, 12 – 41
- Oracle Applications Implementation Wizard, 17 – 5
- Oracle Assets
 - adjustments, 13 – 77
 - cost adjustments, 13 – 78
 - creating asset lines for, 7 – 23
 - implementing, 13 – 72
 - integrating with, 13 – 72
 - interfacing assets to, 13 – 73
 - mass additions, 13 – 75
 - viewing capital project assets, 13 – 76

- Oracle General Ledger
 - burden amounts, reporting to, 15 – 21
 - integrating with, 13 – 10
 - integration, 17 – 58
 - predefined data, 13 – 12
 - profile options, 18 – 46
- Oracle Human Resources
 - employees, 17 – 51
 - integrating with, 13 – 79, 17 – 34 to 17 – 51
 - jobs, 17 – 47 to 17 – 49
 - organizations, 17 – 40
- Oracle Integration Toolkit. *See* Activity Management Gateway
- Oracle Inventory, 13 – 84
- Oracle Payables
 - account generators for, 13 – 51, 17 – 306
 - advances (prepayments), 13 – 34
 - entering
 - project defaults, 13 – 45
 - project information, 13 – 46
 - generating accounts for, 17 – 303
 - importing invoices from, 13 – 27
 - integration, 13 – 21, 13 – 40
 - profile options, 18 – 46
 - setting up, 18 – 50
 - system options, 18 – 51
 - viewing expense reports, 13 – 38
- Oracle Personnel. *See* Oracle Human Resources
- Oracle Project Analysis Collection Pack, 18 – 47
- Oracle Project Connect, 14 – 7
- Oracle Project Manufacturing, 13 – 82
- Oracle Projects Lookups window, 17 – 76
- Oracle Purchasing
 - account generators for, 13 – 51
 - defaults, 13 – 43
 - entering, project information, 13 – 46
 - generating accounts for, 17 – 302
 - integration, 13 – 40
 - setting up, 18 – 54
- Oracle Receivables
 - AutoInvoice, 13 – 60, 13 – 65
 - drilling down to, 8 – 71
 - extensions to
 - determine transaction type, 19 – 105
 - override installation, 19 – 65
 - integrating with, 13 – 60, 19 – 105
 - merging customers with, 13 – 70
 - predefined data, 13 – 61
 - setting up, 18 – 46, 18 – 55, 18 – 60
 - invoice rounding, 17 – 141
 - payment terms, 17 – 134
 - units of measure, B – 15
 - system options, 18 – 56
 - unbilled, 8 – 70
 - viewing invoices in, 13 – 68
- Oracle Workflow
 - Account Generator: Purge Runtime Data
 - profile option, B – 18
 - account generators, 17 – 302, 17 – 306
 - autoallocations, for, 6 – 36 to 6 – 53
 - budget workflow
 - default process, 13 – 101
 - overview, 13 – 99
 - extensions for
 - budget workflow, 19 – 119
 - project verification, 19 – 110
 - project workflow, 19 – 113
 - for autoallocations, B – 8
 - integrating with, 13 – 88
 - processes
 - creating, 17 – 312
 - modifying, 17 – 311
 - Project Expense Report Account Generator, 17 – 311
 - Project Supplier Invoice Account Generation, 17 – 306
 - project types setup, 17 – 199
 - project workflow, 13 – 89
 - viewing attributes, 17 – 316
- organizations
 - See also* multiple organizations
 - burden schedules, adding to, 17 – 45
 - business group, 17 – 42
 - classifications, 17 – 35
 - expenditures and events, for, 17 – 65
 - extension to verify changes, 19 – 125
 - hierarchy, listing, 10 – 10
 - hierarchy of, 17 – 40, 17 – 59, 17 – 63
 - integrating with other applications, 17 – 34, 17 – 35
 - list of, 10 – 11

- locations of, 17 – 36
- overriding, 2 – 47
- overview, 2 – 8, 15 – 41 to 15 – 45, 17 – 35
- task, 2 – 13

overhead. *See* indirect costs

overtime

- adjusting, 18 – 26
- AutoAccounting and, 18 – 12
- billing, 18 – 13
- calculating, 17 – 64
 - costs for, 18 – 2
 - extension for, 19 – 50 to 19 – 55
 - hours, 18 – 21
 - program for, 18 – 24
- compensation rules, 17 – 104, 18 – 5, 18 – 9
- entering, 18 – 21
- expenditure types, 18 – 5
- extensions for, 18 – 14
- importing transactions for, 14 – 16
- labor cost multipliers, 18 – 6, 18 – 11
- premium projects, 18 – 7
- reports, 11 – 18
- tasks, 18 – 8
- tracking
 - overview, 18 – 4
 - setting up, 18 – 4 to 18 – 11

overviews

- billing, 1 – 3
- budgets, 3 – 2 to 3 – 12
- capital projects, 7 – 2
- client extensions, 19 – 2 to 19 – 10
- contract projects, 8 – 3
- costing, 1 – 2, 5 – 2 to 5 – 4
- expenditures, 4 – 2
- integration, 13 – 2, 14 – 2
- Oracle Projects, 1 – 2
- organizations, 15 – 41
- project status inquiry, 9 – 2
- projects and tasks, 2 – 2
- resources and resource lists, 17 – 174
- setting up Oracle Projects, 17 – 5

P

PA periods

- See also* project accounting, periods
- for multiple organizations, 15 – 52
- reports, 10 – 43 to 10 – 45
- setting up, 17 – 69 to 17 – 75

packages and procedures, 19 – 7

paths to windows, A – 2

pay types, 17 – 104

Payables. *See* Oracle Payables

payment terms, setting up, 17 – 134

percent complete

- revenue and invoice, 8 – 75 to 8 – 79
- setting up, 2 – 42
- window, 2 – 71

period types, 17 – 28, 17 – 58

Personal Profile Values window, B – 2

PL/SQL, 19 – 7

posting, 13 – 17

preapproved expenditure batches. *See* expenditure batches

preapproved expenditures. *See* expenditure batches

premium costs, 18 – 2

- See also* overtime

prepayments, creating, 13 – 34

printing invoices, 8 – 63

processes

- about
 - debug mode, 10 – 3
 - list of, 11 – 2
 - project number range parameter, 11 – 5
 - streamline, 11 – 6
 - submitting, 11 – 5
 - submitting, cancelling, and monitoring, 10 – 2
- Add New Organization Compiled Burden Multipliers, 11 – 7
- Compile All Burden Schedule Revisions, 11 – 8
- Compute Forecast Labor Revenue, 11 – 9
- Create and Distribute Burden Transactions, 4 – 34, 5 – 40, 5 – 47, 11 – 10

Create Invoice Organization Transaction Types, 11 – 12
 Delete Draft Revenue of a Single Project, 11 – 13
 Distribute Borrowed and Lent Amounts, 11 – 14
 Distribute Expense Report Costs, 11 – 16, 13 – 25
 Distribute Labor Costs, 5 – 13, 11 – 18
 Distribute Supplier Invoice Adjustment Costs, 11 – 20
 Distribute Total Burdened Costs, 11 – 22
 Distribute Usage and Miscellaneous Costs, 11 – 23
 Generate Allocation Transactions, 11 – 25
 Generate Asset Lines, 11 – 27
 Generate Draft Invoices, 11 – 30
 Generate Draft Revenue, 8 – 37, 11 – 33
 Generate Intercompany Invoices, 11 – 36
 Interface Assets, 11 – 38
 Interface Cross Charge Distributions, 11 – 40
 Interface Expense Reports from Payables, 11 – 42, 13 – 33
 Interface Expense Reports to Oracle Payables, 13 – 26
 Interface Expense Reports to Payables, 11 – 44
 Interface Intercompany Invoices to Receivables, 11 – 46
 Interface Invoices to Receivables, 11 – 48
 Interface Labor Costs to GL, 11 – 50
 Interface Revenue to GL, 11 – 52
 Interface Supplier Invoice Adjustment Costs to GL, 11 – 54
 Interface Supplier Invoices from Payables, 11 – 55
 Interface Total Burdened Costs to General Ledger, 11 – 57
 Interface Usage and Misc. Costs to GL, 5 – 40
 Interface Usage and Miscellaneous Costs to GL, 11 – 58
 Journal Import (GL), 13 – 16
 Payables Invoice Import, 13 – 27
 Payables Transfer to General Ledger, 13 – 30, 13 – 33
 Process Mass Update Batches, 11 – 60
 Refresh Project Summary Amounts, 11 – 61
 Refresh Transaction Summary Amounts, 9 – 19, 11 – 62
 Release Allocation Transactions, 11 – 63
 streamline. *See* streamline processes
 Submit Streamline Processes, 11 – 6
 Tieback Cross Charge Distributions, 11 – 65
 Tieback Expense Reports from Payables, 11 – 67
 Tieback Invoices from Oracle Payables, 13 – 29
 Tieback Invoices from Receivables, 11 – 69
 Tieback Labor Costs from GL, 11 – 70
 Tieback Revenues from GL, 11 – 71
 Tieback Total Burdened Costs from GL, 11 – 72
 Tieback Usage and Misc Costs from GL, 5 – 40, 11 – 73
 Transaction Import, 11 – 74
 Update Project Summary Amounts, 9 – 17, 9 – 18, 11 – 76
 product source, 2 – 35
 profile options, 17 – 234
 about, default values, B – 2 to B – 5
 Account Generator: Purge Runtime Data, 17 – 322, B – 18
 AR: Tax: Allow Ad Hoc Tax Changes, 18 – 46
 AR: Tax: Allow Override of Customer Exemptions, 18 – 47
 AR: Tax: Allow Override of Tax Code, 18 – 47
 AR: Transaction Flexfield QuickPick Attribute, 18 – 47, B – 19
 AR: Use Invoice Accounting for Credit Memos, 18 – 47, B – 20
 GL: Set of Books Name, 18 – 47, B – 20
 HR: Security Profile, B – 20
 MO: Operating Unit, B – 20
 multiple organizations, for, 15 – 56
 PA: ADW Collect Top Tasks, 18 – 47
 PA: ADW Installed, 18 – 47
 PA: Allow Override of PA Distributions in AP/PO, 18 – 46, B – 4
 PA: Allow Project Time and Expense Entry, 13 – 24
 PA: Allow Time and Expense Entry, B – 5
 PA: Allowed to Use AMG, 18 – 47

- PA: AutoApprove Expense Reports, 18 – 47, B – 5
- PA: AutoApprove Timesheets, 18 – 47, B – 6
- PA: Collection Pack Licensed, 18 – 47, B – 6
- PA: Cost Distribution Lines Per Set, B – 6
- PA: Cross–Project Responsibility, B – 7
- PA: Debug Mode, B – 8
- PA: Default Burden Schedule Type, B – 8
- PA: Default Expenditure Organization in AP / PO, 18 – 46, B – 9
- PA: Default Public Sector, B – 9
- PA: Display Find Tasks, B – 9
- PA: Enable Long List of Resource LOVs, B – 10
- PA: Expenditure Items Per Set, B – 10
- PA: Expenditures Per Set, B – 11
- PA: Expense Report Invoices Per Set, B – 12
- PA: Interface Unreleased Revenue to GL, B – 12
- PA: Licensed to Use AMG, B – 13
- PA: Licensed to Use Project Billing, B – 13
- PA: Project Costing Installed, B – 13
 - See also* PA: Licensed to Use Project Billing
- PA: Projects Per Set, B – 14
- PA: Receivables Invoice Line UOM, 18 – 46, B – 15
- PA: Rule–Based Optimizer, B – 15
- PA: Selective Flexfield Segment for AutoAccounting, B – 15
- PA: Streamline Process Sleep Interval, B – 16
- PA: Summarize Expense Report Lines, 13 – 24, 18 – 46, B – 16
- PA: Tab to Budget Matrix Fields, B – 17
- PA: Tasks to Display for Expenditure Entry, B – 17
- PA: Transfer DFF with AP, B – 17
- PA: Web Expenses Invoices Per Set, 13 – 24
- Tax: Allow Ad Hoc Tax Changes, B – 18
- Tax: Allow Override of Customer Exemptions, B – 18
- Tax: Allow Override of Tax Code, B – 19
- project attributes, list of, 10 – 15
- Project Customers window, 2 – 43
- Project Expenditure Accounting window, 4 – 50
- Project Funding Inquiry window, 8 – 14
- project options
 - See also* options
 - assets, 2 – 50 to 2 – 52
 - billing
 - assignments, 2 – 55
 - overrides, 2 – 57 to 2 – 60, 2 – 62
 - schedules, 2 – 56
 - setup, 2 – 51
 - burden schedules, 2 – 49 to 2 – 51
 - classifications, 2 – 42
 - credit receivers, 2 – 55
 - currency, 2 – 44
 - customers and contacts, 2 – 43
 - disabling, 2 – 42
 - job overrides, 2 – 60 to 2 – 63
 - key members, 2 – 46
 - labor, 2 – 59
 - list of, 2 – 40
 - multinational setup, 2 – 45
 - organization overrides, 2 – 47
 - overview, 2 – 40 to 2 – 63
 - resource lists, 2 – 48
 - setting up, 2 – 62
 - tax codes, 2 – 52
 - transaction controls, 2 – 48
- Project Quick Entry window
 - fields, 2 – 27, 2 – 31
 - overview, 2 – 18
- Project Revenue Accounting window, 4 – 50, 8 – 43
- project role types, list of, 10 – 12
- project security, 19 – 11
- project status
 - See also* Project Status Inquiry
 - adjustment restrictions, 4 – 26
 - changing, 2 – 10
 - extensions, 19 – 110, 19 – 113
 - listing, 10 – 12
 - new projects, 2 – 34
 - Project Status window, 9 – 2, 9 – 7
 - reports of, 10 – 25
- Project Status Inquiry
 - See also* project status; summary amounts
 - adding columns, 17 – 218, 17 – 222 to 17 – 229
 - client extensions, 17 – 222 to 17 – 229

- Column Setup window, 17 – 219
- configuring, 17 – 218
- defaults, 17 – 214 to 17 – 218
- factoring, 9 – 5
- formatting numbers and currencies, 17 – 214, 17 – 217, 17 – 221
- overview, 9 – 2
- Project Status window, 9 – 3 to 9 – 5, 9 – 6
- rounding, 17 – 217
- setting up, 17 – 213 to 17 – 229
- totals, 17 – 222
- window, 17 – 213 to 17 – 229
- project summary amounts
 - See also* summary amounts
 - custom reporting of, 18 – 34
 - future period transactions, 11 – 77
 - refreshing, 11 – 61
- project templates
 - creating, 2 – 29
 - dates in, 2 – 20 to 2 – 24
 - disabling, 2 – 31
 - expenditure batch, 4 – 20
 - for quick agreement. *See* quick agreement
 - key members, 2 – 23
 - multi-organization, 2 – 16
 - overview, 2 – 16 to 2 – 19
 - updating, 2 – 31
 - using, 2 – 20
 - using Quick Entry, 2 – 18 to 2 – 28
- project types, 10 – 13
 - about, 2 – 8
 - attributes
 - billing, 17 – 201 to 17 – 202
 - budget control, 17 – 198
 - capitalization and CIP, 17 – 200
 - costing, 17 – 198
 - general, 17 – 197
 - changing, 2 – 34
 - classes, 2 – 8
 - defaults, 17 – 196
 - defining, 17 – 203
 - example setup, 17 – 204 to 17 – 213
 - multiple organization, 17 – 197
 - overview, 17 – 196
 - window reference, 17 – 197
- project workflow
 - extension to call, 19 – 110
 - extension to change status, 19 – 113
- projects
 - See also* capital projects
 - accounting periods, 10 – 12
 - billing a different, 2 – 44
 - capital
 - about, 2 – 8
 - setting up, 17 – 200
 - class categories and codes, 17 – 186 to 17 – 188
 - contact types, 17 – 194
 - list of, 10 – 12
 - contract
 - about, 2 – 8
 - funding, 8 – 5
 - setting up, 17 – 201 to 17 – 202
 - control functions, 2 – 5
 - copying, 2 – 32
 - costs, reporting, 15 – 21 to 15 – 35
 - creating, 2 – 32
 - customer relationships, 10 – 12, 17 – 193
 - dates for, 2 – 10
 - defining, 17 – 183
 - deleting, 2 – 36
 - events, 8 – 23
 - indirect
 - about, 2 – 8
 - setting up, 17 – 196
 - mass updates, 2 – 64
 - naming, 2 – 8
 - numbering, 2 – 7, 17 – 62
 - options for, 2 – 40 to 2 – 63
 - organization, 2 – 8
 - overview, 2 – 2
 - percent complete, 2 – 71
 - public sector, 2 – 11
 - role types, 10 – 12, 17 – 191
 - security, 2 – 7
 - service types, 17 – 189
 - setting up, workflow, 17 – 199
 - status, 2 – 10, 10 – 12, 17 – 183
 - summary amounts, maintaining, 9 – 11
 - tasks
 - entering, 2 – 36

- overview, 2 – 2 to 2 – 13
- templates, 2 – 16 to 2 – 31
- type classes, 2 – 8
- types of, 2 – 8, 10 – 13, 17 – 196
- Projects window
 - assigning resource lists, 17 – 180
 - defining assets, 7 – 12
 - deleting a project, 2 – 36
 - project and task options, setting up, 2 – 28, 2 – 62
 - project templates
 - creating, 2 – 29
 - disabling, 2 – 31
 - updating, 2 – 31
 - reference, 2 – 7
 - tasks, entering, 2 – 36
- provider projects, 2 – 44
- PSI. *See* Project Status Inquiry
- public sector projects, 2 – 11
- purchase orders
 - AutoCreate, 13 – 42
 - commitments, 13 – 52
 - creating for capital projects, 7 – 4
 - entering, 13 – 42
 - interfacing project information, 18 – 54
 - matching supplier invoices, 13 – 43
 - releases, 13 – 42
 - tracking, 13 – 42
 - validating, 13 – 50
- Purchasing. *See* Oracle Purchasing
- purging
 - expense reports, 13 – 37
 - runtime data, 17 – 322

R

- raw costs. *See* costs
- Receivables. *See* Oracle Receivables
- relationships, customers and contacts, 17 – 193
- reporting period, 9 – 16
- reports and listings
 - about
 - customizing, 18 – 34 to 18 – 43

- debug mode, 10 – 3
- project number range parameter, 11 – 5
- submitting, cancelling, and monitoring, 10 – 2
- Accounts Receivable Interface, 11 – 48
- Accounts Receivable Transfer, 11 – 46
- Agreement Status by Customer, 10 – 31
- Agreement Types, 10 – 4
- AutoAccounting Functions, 10 – 4
- AutoAccounting Lookup Sets Listing, 10 – 4
- AutoAccounting Rule Definitions Listing, 10 – 5
- AutoAccounting Segment Rule Pairings, 10 – 5
- Batch Expense Reports, 11 – 16
- Borrowed and Lent Amounts Distribution, 11 – 13, 11 – 15
- Burden Schedule Mass Compilation, 11 – 8
- Burdened Cost, 11 – 22
- Class Categories and Codes, 10 – 6
- Compensation Rules, 10 – 6
- Credit Types Listing, 10 – 6
- Cross Charge GL Audit, 10 – 39
- Distribute Borrowed and Lent Amounts, 11 – 14
- Draft Invoice Generation Report, 11 – 31
- Draft Revenue Generation, 11 – 34 to 11 – 36
- Employee Activity by Organization, 10 – 28
- Employee Assignments, 10 – 7
- Event Types, 10 – 7
- Expenditure Batch Status, 10 – 17
- Expenditure Cost Rates, 10 – 7
- Expenditure Types Definition, 10 – 8
- Expenditures Detail, 10 – 20
- Expenditures Summary, 10 – 22
- Forecast Revenue Computation, 11 – 9
- Generate Asset Lines, 11 – 29
- GL Cost Interface Audit, 10 – 38
- GL Revenue Interface Audit, 10 – 39
- Implementation Options Listing, 10 – 8
- Intercompany Invoice, 11 – 37
- Intercompany Invoice Generation, 11 – 37
- Interface Expense Reports, 11 – 44
- Interface Labor Costs to GL, 11 – 50
- Interface Project Costs from Payables, 11 – 56
- Interface Revenues to GL, 11 – 53

- Interface Supplier Invoice Adjustment Costs to GL Report, 11 – 54
- Interface Total Burdened Cost to GL, 11 – 57
- Interface Usage to GL, 11 – 58
- Interfaced Assets, 11 – 38
- interfaced expense reports, 13 – 27, 13 – 29
- invoice distributions, 13 – 34
- Invoice Flow, 10 – 33
- Invoice Formats, 10 – 8
- Invoice Review, 10 – 29
- Job, 10 – 9
- Labor Cost Rates, 10 – 9
- Labor Costs, 11 – 18
- Labor Costs Multipliers, 10 – 9
- Missing Timecards, 10 – 18
- Non-Labor Resources By Organization, 10 – 10
- Organization, 10 – 11
- Organization Hierarchy, 10 – 10
- Overtime Labor Calculations, 11 – 18
- Potential Revenue Summary, 10 – 34
- Pre-Approved Expenditures Entry Audit, 10 – 18
- Pre-Approved Expenditures Entry Audit Report, 14 – 31
- Project Accounting Lookups, 10 – 11
- Project Accounting Periods, 10 – 12
- Project Billing Status, 10 – 35
- Project Configuration, 10 – 15
- Project Contact Types, 10 – 12
- Project Customer Relationships, 10 – 12
- Project Expenditure Adjustment Activity, 10 – 23
- Project Role Types, 10 – 12
- Project Statuses, 10 – 12
- Project Subledger, 10 – 41, 10 – 42
- Project Types, 10 – 13
- Revenue Categories, 10 – 13
- Revenue Flow Detail, 10 – 36
- Revenue, Cost, Budgets, 10 – 25, 10 – 26
- Reverse and Interface Exceptions, 11 – 29
- Service Types, 10 – 13
- Standard Bill Rate Schedules, 10 – 13
- Streamline Processing Report, 11 – 6
- submitting, 10 – 2
- Summarization Period Exceptions, 10 – 46
- Summarized Burden Component Items, 11 – 10
- Supplier Invoice Adjustment Cost, 11 – 20
- Task Configuration. *See* reports and listings, Task Detail Report
- Task Details, 10 – 15
- Task-Revenue, Cost, Budgets by Resources, 10 – 26
- Tieback Cross Charge Distributions, 11 – 66
- Tieback Expense Reports Costs, 11 – 67
- Tieback Invoices, 11 – 69
- Tieback Labor Costs, 11 – 70
- Tieback Revenues, 11 – 71
- Tieback Total Burdened Costs, 11 – 72
- Tieback Usage and Misc. Costs, 11 – 73
- Transaction Import, 11 – 75
- Transaction Sources, 10 – 14
- Transfer Activity, 10 – 23
- Transfer Cross Charge Amounts to GL, 11 – 41
- Unbilled Receivables Aging, 10 – 30
- Units Definition, 10 – 14
- Unprocessed Events, 11 – 32
- Update Project Summary Amounts, 11 – 77
- Usage and Misc. Cost, 11 – 23
- Work Breakdown Structure, 10 – 16
- requests. *See* processes, about; reports and listings, about
- requisitions
 - commitments, 13 – 52
 - entering, 13 – 41
 - interfacing, 13 – 40
 - validating, 13 – 50
- resource lists
 - assigning to projects, 2 – 48, 17 – 180
 - changing after summarization, 9 – 21
 - defining, 17 – 178
 - multiple organizations, for, 15 – 57, 17 – 174
 - overview, 17 – 174
 - windows reference, 17 – 176
- Resource Status window, 9 – 3, 9 – 7
- resources. *See* resource lists
- retention, 8 – 57
- revenue
 - accounting transactions, 15 – 17
 - accrual, 2 – 52, 8 – 11, 8 – 28

- adjusting, 8 – 40
- and multiple customers and agreements, 8 – 34
- borrowed and lent. *See* AutoAccounting; cross charge; inter-project billing
- burdening, 5 – 43
- calculations, 8 – 31
- categories, 10 – 13, 17 – 83
- credit types, 17 – 160, 18 – 61
- dates, 15 – 7
- deleting, 8 – 37, 11 – 13
- distribution rules, 2 – 52, 17 – 167
- forecasting, 11 – 9
- generating, 8 – 29, 8 – 37, 11 – 33
- interfacing, 11 – 52, 13 – 14
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- reports, 10 – 34, 10 – 36
- reviewing, 8 – 41
- tieback, 11 – 71
- tying back from GL, 13 – 17
- windows
 - Project Revenue Accounting, 8 – 43
 - Revenue, 8 – 45
 - Revenue Lines, 8 – 46 to 8 – 48
 - Revenue Review, 8 – 41
 - Revenue Summary, 8 – 44
 - View Revenue Accounting, 8 – 43
- Review Transactions window, 14 – 58, 14 – 60
- role types, 10 – 12, 17 – 191
- rule assignments. *See* AutoAccounting

S

- sales credit, 18 – 61, 18 – 64
- sales representatives, 18 – 61
- schedules
 - billing, 2 – 56
 - burden, 5 – 21 to 5 – 28
 - overriding, 2 – 50
- security
 - budget, 3 – 9
 - function
 - event, 8 – 26
 - list, C – 2 to C – 13
 - overview, C – 2
 - project, 2 – 7
 - project and labor costs, 15 – 13
- service types
 - list of, 10 – 13
 - setting up, 17 – 189
 - tasks, 2 – 14
- set of books
 - defining, 17 – 27
 - Fremont Corporation, 17 – 28
 - setting up, 17 – 58
- setting up
 - account generators, 17 – 302
 - agreement types, 17 – 135
 - business groups, 17 – 58
 - capital projects, 17 – 196, 17 – 200
 - checklist for, 17 – 6 to 17 – 21
 - class categories and codes, 17 – 186 to 17 – 188
 - compensation rules, 17 – 104
 - contact types, 17 – 194
 - contract projects, 17 – 196, 17 – 201 to 17 – 202
 - cost rates
 - employee, 17 – 106
 - expenditure, 17 – 101
 - credit types, 17 – 160
 - currencies, 17 – 60
 - customer relationships, 17 – 193
 - dates, 17 – 25
 - event organization, 17 – 65
 - example (Fremont Corp), 17 – 23
 - exchange rates, 17 – 60, 17 – 62
 - expenditure
 - cycles, 17 – 63
 - types, 17 – 87
 - implementation options, list of, 10 – 8
 - indirect projects, 17 – 196
 - journals, 17 – 64, 17 – 65
 - labor costs, multipliers, 17 – 107
 - lookups, 17 – 76
 - multiple organizations, 15 – 51, 15 – 52
 - non-labor costs, 17 – 101
 - numbering for, invoices, 17 – 66
 - organization hierarchies, default reporting, 17 – 59

- overtime calculations, 17 – 64
- overview of, 17 – 5
- PA periods, 17 – 69 to 17 – 75
- period types
 - PA, 17 – 59
 - summarization, 17 – 58
- planning, 17 – 2 to 17 – 5
- project
 - role types, 17 – 191
 - security, 2 – 7
 - status, 17 – 183
 - types, 17 – 196
- resources, non-labor, 17 – 91
- role types, 17 – 191
- security, B – 18, B – 20
 - function, C – 2
 - project, 2 – 7, 15 – 13
- service types, 17 – 189
- sets of books, 17 – 58
- tax defaults, 17 – 68
- transaction sources, 17 – 95 to 17 – 98
- units of measure, 17 – 85
- soft limits, 8 – 11
- Source Products window, 14 – 5
- source reference, 2 – 35
- sources
 - Oracle Payables, 13 – 34
 - Oracle Projects, 13 – 27
 - Self Service, 13 – 33
- splitting
 - asset lines, 7 – 28
 - expenditure items, 4 – 38, 4 – 56
- spreadsheets, exporting to, 9 – 3
- straight time costs, 18 – 2
- streamline processes. *See* processes, about
- subtasks, creating, 2 – 37
- summary amounts
 - actuals and commitments, 9 – 20
 - creating after conversion, 9 – 18
 - custom reports for, 18 – 34
 - maintaining, 9 – 11, 9 – 15
 - reconciling budget periods, 9 – 13
 - report of exceptions, 10 – 46
 - reviewing, 9 – 3 to 9 – 5

- setting reporting period, 9 – 16
- troubleshooting, 9 – 19
- updating, 9 – 17
- supplier invoices
 - See also* invoices
 - adjustments
 - creating, 4 – 44
 - interfacing, 11 – 54
 - calculating costs for, 5 – 7
 - commitments, 13 – 52
 - dates, 15 – 5 to 15 – 9
 - distribution sets, 13 – 44
 - entering, 13 – 44
 - interfacing, 13 – 40, 13 – 45
 - matching to purchase orders, 13 – 43
 - posting, 13 – 44
 - transferring, 11 – 55, 18 – 50
 - validating, 13 – 50
- suppliers
 - as employees, 13 – 23
 - employees as, 18 – 51
 - invoice accounts for, 17 – 303
- system integration, 13 – 2, 14 – 2
 - See also* integration

T

- Task Configuration Report. *See* reports and listings, Task Detail Report
- task service types. *See* service types
- Task Status window, 9 – 3, 9 – 7
- tasks
 - changing multiple, 2 – 64
 - control functions, 2 – 5, 7 – 11
 - creating, 2 – 36
 - dates, 2 – 13
 - deleting, 2 – 38
 - details, 10 – 15
 - levels, 2 – 2
 - manager, 2 – 13
 - mass updates, 2 – 64
 - numbering, 2 – 13
 - options for, 2 – 40 to 2 – 63
 - See also* project options
 - overview, 2 – 2 to 2 – 13

- percent complete, 2 – 42, 2 – 71
- window reference, 2 – 11
- taxes
 - codes
 - defaults, 19 – 108 to 19 – 109
 - invoice line, 18 – 66
 - setting up, 2 – 52
 - defaults, 17 – 68
 - non-recoverable, 13 – 45, 13 – 52
 - on invoices, 18 – 66, 18 – 69
 - transferring
 - from Oracle Payables, 12 – 77
 - to Oracle Receivables, 18 – 70
- templates
 - See also* project templates
 - for client extensions, 19 – 8
- text files, exporting to, 9 – 3
- tie back
 - costs and revenue, 13 – 17
 - expense reports, 13 – 29
- timecards
 - dates for, 15 – 5 to 15 – 9
 - list of missing, 10 – 18
- total burdened costs. *See* burdened costs
- transaction controls
 - case studies, 16 – 8, 16 – 10, 16 – 12
 - examples, 4 – 69 to 4 – 78
 - extensions, 19 – 22 to 19 – 30
 - in projects, 2 – 48, 7 – 11
 - on chargeable expenditures, 4 – 63
 - on purchase orders, requisitions, and invoices, 13 – 50
 - overview, 4 – 62
- transaction import
 - See also* Activity Management Gateway
 - adjusting transactions, 14 – 31
 - defining sources, 14 – 14
 - example of, 14 – 27
 - expenditure type classes for, 14 – 15
 - grouping transactions, 14 – 24
 - interface tables
 - expenditure, 14 – 34
 - populating, 14 – 13, 14 – 34
 - loading
 - accounted / unaccounted items, 14 – 17
 - burden transactions, 14 – 18
 - costed / uncosted items, 14 – 17
 - foreign currency transactions, 14 – 20
 - manufacturing costs, 14 – 19
 - options, 14 – 24
 - overview, 14 – 11, 14 – 12
 - process, 11 – 74
 - process diagram, 14 – 12
 - rejections
 - codes for, 14 – 58
 - correcting, 14 – 61 to 14 – 63
 - reviewing transactions, 14 – 60
 - rounding limit, 14 – 22
 - sources, defining for, 14 – 40
 - tables, interface control, 14 – 36
 - unmatched negative transactions for, 14 – 16
 - validation, 14 – 33 to 14 – 34
 - viewing transactions, 14 – 30
- transaction sources, default expenditure type class, 17 – 96
- transaction types
 - See also* invoicing
 - creating, 11 – 12, 18 – 57
 - cross charge, 12 – 14
 - extension, 19 – 105
 - for tax calculation, 18 – 67
 - invoices, 8 – 56, 13 – 61
- transactions
 - adjusting, 19 – 44
 - allocation, 11 – 63
 - capitalized, 7 – 10
 - cost distribution, 11 – 23
 - importing, process for, 11 – 74
 - interfacing, 11 – 58
 - liability account for, 13 – 26
 - sources
 - about, 17 – 95 to 17 – 100
 - defining, 17 – 100
 - list of, 10 – 14
 - summary amounts, 11 – 62
 - unmatched negative, 4 – 24, 14 – 16
 - work in process, 11 – 23
- transfer pricing
 - defining
 - rules, 12 – 48
 - schedules, 12 – 50

overview, 12 – 21

translation. *See* multilingual support

troubleshooting

allocations and autoallocations, 6 – 50

expenditures, rejected, 4 – 4

summary amounts, 9 – 19

U

units of measure

defining, B – 15

list of, 10 – 14

setting up, 17 – 85

usage costs, tieback, 11 – 73

usages

costs

calculating, 5 – 6

distributing, 11 – 23

interfacing, 11 – 58

rate overrides, 17 – 102

dates, 15 – 5 to 15 – 9

revenue, 17 – 288

See also AutoAccounting

setting up, 17 – 91

user profile options. *See* profile options

V

vendor invoices. *See* supplier invoices

View Expenditure Accounting window, 4 – 49

View Revenue Accounting window, 8 – 43

W

WBS. *See* work breakdown structure

windows

folders in, A – 2

navigation paths to, A – 2

WIP. *See* work in process transactions

wizards, 17 – 5

work breakdown structure

report, 10 – 16

setting up, 2 – 2 to 2 – 7

viewing, 2 – 5

work in process, 11 – 23, 17 – 79

work site, location, 2 – 14

workflow. *See* Oracle Workflow

write offs, 8 – 65

write-on events, 8 – 53

Z

zoom. *See* drilldown to

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Contents

VOLUME 1

	Preface	i
	User Guides Related to All Products	v
	User Guides Related to This Product	vi
Chapter 1	Overview of Oracle Projects	1 – 1
	Overview of Oracle Projects	1 – 2
Chapter 2	Projects	2 – 1
	Overview of Projects and Tasks	2 – 2
	Project Templates	2 – 16
	Project Entry	2 – 32
	Project and Task Options	2 – 40
	Mass Update Batches	2 – 64
	Percent Complete	2 – 71
Chapter 3	Budgets	3 – 1
	Overview of Project Budgets	3 – 2
	Budget Entry	3 – 13

Chapter 4	Expenditures	4 – 1
	Overview of Expenditures	4 – 2
	Pre-Approved Expenditures	4 – 9
	Expenditure Adjustments	4 – 26
	Viewing Expenditure Items	4 – 47
	Viewing Accounting Lines	4 – 49
	Converting Foreign Currencies	4 – 59
	Transaction Controls	4 – 62
 Chapter 5	 Costing	 5 – 1
	Overview of Costing	5 – 2
	Calculating Costs	5 – 5
	Distributing Labor Costs	5 – 8
	Precedence for Calculating Burden Cost	5 – 15
	Burdening (Cost Plus Processing)	5 – 16
	Storing and Viewing Burden Costs	5 – 30
 Chapter 6	 Allocations	 6 – 1
	Overview of Allocations	6 – 2
	About Allocation Rules	6 – 4
	Generating Allocations Transactions	6 – 19
	Full and Incremental Allocations	6 – 26
	AutoAllocations	6 – 28
	Setting Up Workflow for Step-Down AutoAllocations	6 – 36
	Processes for the PA Step Down Allocation Workflow	6 – 38
	Troubleshooting Allocations and AutoAllocations	6 – 50
 Chapter 7	 Capital Projects	 7 – 1
	Overview of Capital Projects	7 – 2
	Creating a Capital Asset in Oracle Projects	7 – 9
	Defining Assets	7 – 12
	Use Grouping Levels to Summarize Asset Costs	7 – 16
	Placing an Asset in Service	7 – 22
	Creating and Preparing Asset Lines for Oracle Assets	7 – 23
	Reviewing and Adjusting Asset Lines	7 – 27
	Sending Asset Lines to Oracle Assets	7 – 29
	Adjusting Assets After Interface	7 – 31

Accounting for CIP and Asset Costs in Oracle Projects and Oracle Assets	7 – 36

Chapter 8

Billing	8 – 1
Billing Data Flow for Contract Projects	8 – 2
Overview of Contract Projects	8 – 3
Funding a Contract Project	8 – 5
Controlling Billing by Top Task	8 – 16
Quick Agreement / Funding Projects	8 – 18
Events	8 – 23
Accruing Revenue for a Project	8 – 28
Reviewing Revenue	8 – 41
Invoicing a Project	8 – 48
Accruing Revenue and Generating Invoices Based on Percent Complete	8 – 75
Revenue–Based Cost Accrual	8 – 80

Chapter 9

Project Status Inquiry	9 – 1
Project Status Inquiry Overview	9 – 2
Project Summary Amounts	9 – 11

Chapter 10

Reports and Listings	10 – 1
Submitting Reports and Listings	10 – 2
Implementation Listings	10 – 4
Project Entry Reports	10 – 15
Transaction Entry Reports	10 – 17
Project Expenditures Reports	10 – 20
Project Status Reports	10 – 25
Employee Activity Report	10 – 28
Billing Review Reports	10 – 29
Billing Process Flow Reports	10 – 33
Interface Audit Reports	10 – 38
Project Subledger Audit Reports	10 – 41
Period Close Exception Reports	10 – 43
Summarization Period Exceptions	10 – 46

Chapter 11

Processes	11 – 1
List of Processes	11 – 2
Submitting Processes	11 – 5
Add New Organization Compiled Burden Multipliers	11 – 7
Compile All Burden Schedule Revisions	11 – 8
Compute Forecast Labor Revenue	11 – 9
Create and Distribute Burden Transactions	11 – 10
Create Invoice Organization Transaction Types Process	11 – 12
Delete Draft Revenue of a Single Project	11 – 13
Distribute Borrowed and Lent Amounts	11 – 14
Distribute Expense Report Costs	11 – 16
Distribute Labor Costs	11 – 18
Distribute Supplier Invoice Adjustment Costs	11 – 20
Distribute Total Burdened Cost	11 – 22
Distribute Usage and Miscellaneous Costs	11 – 23
Generate Allocations Transactions	11 – 25
Generate Asset Lines	11 – 27
Generate Draft Invoices	11 – 30
Generate Draft Revenue	11 – 33
Generate Intercompany Invoices	11 – 36
Interface Assets	11 – 38
Interface Cross Charge Distributions to General Ledger	11 – 40
Interface Expense Reports from Payables	11 – 42
Interface Expense Reports to Payables	11 – 44
Interface Intercompany Invoices to Receivables	11 – 46
Interface Invoices to Receivables	11 – 48
Interface Labor Costs to General Ledger	11 – 50
Interface Revenue to General Ledger	11 – 52
Interface Supplier Invoice Adjustment Costs to Payables	11 – 54
Interface Supplier Invoices from Payables	11 – 55
Interface Total Burdened Cost to General Ledger	11 – 57
Interface Usage and Miscellaneous Costs to General Ledger	11 – 58
Process Mass Update Batches	11 – 60
Refresh Project Summary Amounts	11 – 61
Refresh Transaction Summary Amounts	11 – 62
Release Allocation Transactions	11 – 63
Tieback Cross Charge Distributions from GL	11 – 65
Tieback Expense Reports from Payables	11 – 67
Tieback Invoices from Receivables	11 – 69

Tieback Labor Costs from General Ledger	11 – 70
Tieback Revenue from General Ledger	11 – 71
Tieback Total Burdened Cost from General Ledger	11 – 72
Tieback Usage Costs from General Ledger	11 – 73
Transaction Import	11 – 74
Update Project Summary Amounts	11 – 76

Index

VOLUME 2

Chapter 12

Cross Charge and Inter–Project Billing	12 – 1
Overview of Cross Charge and Inter–Project Billing	12 – 4
Basic Business Needs	12 – 5
Glossary for Cross Charge and Inter–Project Billing	12 – 11
Major Features of Cross Charge	12 – 14
Major Features of Inter–Project Billing	12 – 33
Currency Model in Oracle Projects	12 – 35
Setting Up and Processing Cross Charge and Inter–Project Billing	12 – 37
Setting Up Cross Charge and Inter–Project Billing	12 – 38
Procedures for Cross Charge and Inter–Project Billing	12 – 47
Processing Flow for Cross Charge and Inter–Project Billing	12 – 62
Creating Cross Charge Transactions	12 – 64
Processing Borrowed and Lent Accounting	12 – 67
Processing Intercompany Billing	12 – 70
Interfacing Cross Charge Distributions to General Ledger	12 – 79
Adjusting Cross Charge Transactions	12 – 81
Overview of Processing Flow for Inter–Project Billing	12 – 88
Adjusting Inter–Project Billing Invoices	12 – 91

Chapter 13

Integration with Other Oracle Applications	13 – 1
System Integration	13 – 2
Integrating with Oracle General Ledger	13 – 10
Integrating Expense Reports with Oracle Payables	13 – 21
Integrating with Oracle Purchasing and Oracle Payables (Requisitions, Purchase Orders, and Supplier Invoices)	13 – 40

Integrating with Oracle Receivables	13 – 60
Integrating with Oracle Assets	13 – 72
Integrating with Oracle Human Resources	13 – 79
Integrating with Oracle Project Manufacturing	13 – 82
Integrating with Oracle Inventory	13 – 84
Integrating with Oracle Workflow	13 – 88
Integrating with Cash Management	13 – 106

Chapter 14

Integration with Non–Oracle Applications	14 – 1
Activity Management Gateway	14 – 2
Project Connect	14 – 7
Transaction Import	14 – 11
Transaction Import Interface	14 – 33

Chapter 15

Advanced Topics and Essays	15 – 1
List of Essays	15 – 2
Date Processing in Oracle Projects	15 – 3
Project and Labor Cost Security in Oracle Projects	15 – 13
Accounting Transactions	15 – 16
Reporting Requirements for Project Burdening	15 – 21
Implementing Burden Cost Accounting	15 – 36
Organizations in Oracle Projects	15 – 41
Support for Multiple Organizations in Oracle Projects	15 – 46
Multilingual Support	15 – 58

Chapter 16

Case Studies	16 – 1
List of Case Studies	16 – 2
Case Study: Incremental Allocations	16 – 3
Case Study: New Charges Not Allowed	16 – 8
Case Study: Organization–Based Transaction Controls	16 – 10
Case Study: Default Billable Status by Expenditure Type	16 – 12
Case Study: Surcharge	16 – 14
Case Study: Summary Amounts for Reporting	16 – 20
Case Study: Organization Change in Fremont Corporation	16 – 31

Index

VOLUME 3

Chapter 17

Oracle Projects Setup and Implementation	17 – 1
Planning Your Implementation	17 – 2
Overview of Setting Up Oracle Projects	17 – 5
Oracle Applications Set of Books	17 – 27
Employees and Organizations	17 – 34
Customers	17 – 54
Implementation Options	17 – 57
PA Periods	17 – 69
Oracle Projects Lookups	17 – 76
Expenditure Definitions	17 – 78
Non-Labor Costing Definitions	17 – 101
Labor Costing Definitions	17 – 104
Burden Costing Definitions	17 – 110
Indirect Costs	17 – 126
Billing	17 – 130
Budgets	17 – 168
Resources and Resource Lists	17 – 174
Project Definition	17 – 183
Project Status Inquiry Setup	17 – 213
Profile Options	17 – 234
Descriptive Flexfields	17 – 236
AutoAccounting and the Account Generator	17 – 237
Using the Account Generator in Oracle Projects	17 – 302
Setting Up the Account Generator Processes	17 – 306
Using AutoAccounting with Account Generator Processes	17 – 323
Comparing AutoAccounting to the Workflow Account Generator	17 – 327

Chapter 18

Advanced Implementation Issues	18 – 1
Tracking Overtime and Premium Labor Costs	18 – 2
Integrating Commitments from External Systems	18 – 29
Custom Reporting Using Project Summary Amounts	18 – 34
Setting Up for Multi-Currency Processing	18 – 44
Implementing Oracle Projects for Integration With Other Applications	18 – 46

Chapter 19

Client Extensions	19 – 1
Client Extensions	19 – 2
Project Security Extension	19 – 11
Budget Calculation Extensions	19 – 14
Transaction Control Extensions	19 – 22
Labor Costing Extensions	19 – 31
Labor Transaction Extensions	19 – 34
Labor Billing Extensions	19 – 46
Overtime Calculation Extension	19 – 50
Burden Costing	19 – 56
Commitment Changes	19 – 58
Descriptive Flexfield Mapping	19 – 60
Receivables Installation Override	19 – 65
Billing Extensions	19 – 67
Billing Cycle Extension	19 – 98
Automatic Invoice Approve/Release Extension	19 – 100
AR Transaction Type Extension	19 – 105
Output Tax Extension	19 – 108
Project Verification Extension	19 – 110
Project Workflow Extension	19 – 113
Budget Verification Extension	19 – 116
Budget Workflow Extension	19 – 119
Verify Organization Change Extension	19 – 125
Allocation Extensions	19 – 129
AutoApproval Extension	19 – 142
Asset Assignment Extension	19 – 144
Cost Plus Application Programming Interface (API)	19 – 147
Cross-Charge Client Extensions	19 – 151
Provider and Receiver Organizations Override Extension	19 – 152
Cross-Charge Processing Method Override Extension	19 – 154
Transfer Price Determination Extension	19 – 157
Transfer Price Override Extension	19 – 160
Transfer Price Currency Conversion Override Extension	19 – 163
Cost Accrual Identification Extension	19 – 165

Appendix A

Menu Paths	A – 1

Appendix B

Profile Options	B – 1

Appendix C	Function Security C – 1
Appendix D	Descriptive Flexfields D – 1
Appendix E	Attachments E – 1
	Glossary
	Index

Reader's Comment Form

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CHAPTER

12

Cross Charge and Inter–Project Billing

This chapter describes accounting within and between operating units and legal entities.

Cross Charge and Inter–Project Billing

This chapter covers the following topics:

Introduction to Cross Charge and Inter–Project Billing: page 12 – 3

Setting Up Cross Charge and Inter–Project Billing: page 12 – 38

Procedures for Cross Charge and Inter–Project Billing: page 12 – 47

Processing Flow for Cross Charge and Inter–Project Billing: page
12 – 62

Introduction to Cross Charge and Inter–Project Billing

This section covers the following topics:

Overview of Cross Charge and Inter–Project Support: page 12 – 4

Basic Business Needs: page 12 – 5

Project Example: page 12 – 5

Project Structures: page 12 – 6

Glossary for Cross Charge and Inter–Project Support: page 12 – 11

Major Features of Cross Charge: page 12 – 14

Cross Charge Types: page 12 – 14

Cross Charge Processing Methods: page 12 – 15

Cross Charge Controls: page 12 – 16

Cross Charge Processing Controls: page 12 – 19

Transfer Pricing: page 12 – 21

Cross Charge Processes: page 12 – 22

Cross Charge Adjustments: page 12 – 30

Multiple Reporting Currencies Support: page 12 – 31

Major Features of Inter–Project Billing: page 12 – 33

Inter–Project Billing Project Relationships

Inter–Project Billing Process

Currency Model in Oracle Projects: page 12 – 35

See Also

Setting Up Cross Charge and Inter–Project Billing: page 12 – 38

Procedures for Cross Charge and Inter–Project Billing: page 12 – 47

Processing Flow for Cross Charge and Inter–Project Billing: page 12 – 62

Overview of Cross Charge and Inter–Project Billing

Enterprises face complex accounting and operational project issues that result from both:

- Centralized project management through sharing resources across organizations
- Decentralized project management through subdividing a project into related projects

Oracle Projects provides cross charge and inter–project billing features to address these issues. This essay provides an overview of these features, detailed implementation steps, and a description of the processing flow. In reading this essay, please note the following:

- The cross charge feature depends on multiple organization support in Oracle Projects and other Oracle Applications. You may want to review multi–organization support documentation before continuing.
- The cross charge and inter–project billing features support multinational projects, which also call for other currency exchange management functionality.
- The contract project used throughout this essay as an example is for illustrative purposes only. You can apply the most of the features described in this essay to other types of projects as well.
- You can customize your implementation of inter–project or intercompany billing to conform to your accounting practices if, for example, you require profit elimination for financial consolidation. This essay does not describe this type of customization.
- This essay assumes that you have implemented Oracle Projects and other Oracle Applications in a single database instance and does not describe a scenario in which provider and receiver organizations reside in physically or logically separate database servers.

Basic Business Needs

Projects commonly either share resources within an enterprise but across organization and country boundaries, or divide the work into multiple projects for easier execution or management. The legal, statutory, or managerial accounting requirements of such projects often present complex operational control, billing, and accounting challenges. The cross charge and inter-project billing features enable companies to meet these challenges by providing timely information for effective project management. Project managers can easily view the current total costs of the project, while customers receive bills as costs are incurred, regardless of who performs the work or where it is performed.

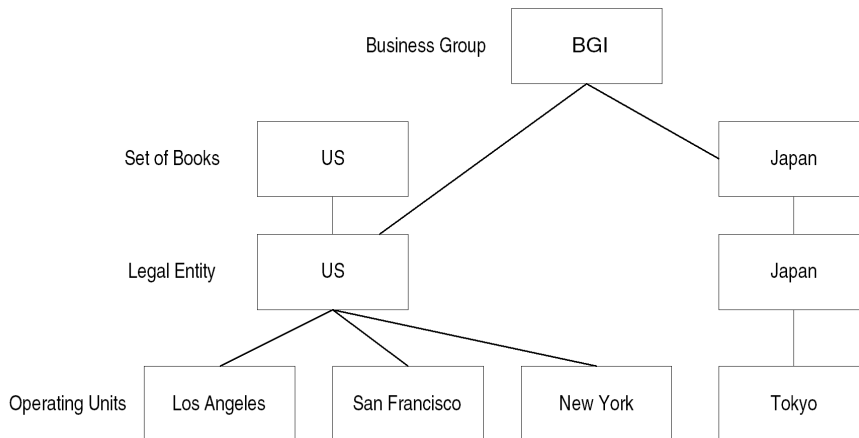
The scenario shown in the sections Project Example: page 12 – 5 and Project Structures: page 12 – 6 elaborates upon these business needs and is used throughout this chapter.

To use either the intercompany billing feature (for cross charge) or the inter-project billing feature, you must install and implement both Oracle Project Costing and Oracle Project Billing. See: Project Structures: page 12 – 6.

Project Example

Company ABC is an advertising company with a multiple organization structure, as illustrated in Figure 12 – 1:

Figure 12 – 1 Multiple Organization Structure of Company ABC



The Los Angeles operating unit, ABC's headquarters, received a contract from a UK customer. The customer wants ABC to produce and air live shows in San Francisco, New York, and Tokyo to launch its new line of high-end women's apparel. The customer wants to be billed in British Pounds (£). ABC calls this project "Project X" and wants to track it using Oracle Projects. ABC will plan and design the show using resources from the Los Angeles operating unit. Employee EMPJP from its Japan subsidiary will act as an internal consultant to add special features to suit the Japanese market. The San Francisco, New York, and Tokyo operating units are each responsible for the successful execution of these live shows with their local resources.

Based on this scenario, each operating unit can incur costs against Project X. Consider the following labor transaction:

- Employee EMPJP of Japan worked 10 hours meeting with the customer in Japan to learn about the new product.
- Employee EMPJP's cost rate is ¥ 5,000 per hour.
- Employee EMPJP's standard bill rate is \$400 per hour.
- Employee EMPJP's internal bill rate, if applicable, is \$200 per hour, or 50% of the standard bill rate.

Sample Transaction (10 hours of labor)	Transaction Currency Amounts	Functional Currency Amounts	Project Currency Amounts
Cost	¥50,000	¥50,000	\$500
Revenue	\$4,000	\$4,000	\$4,000
Invoice	£3,000	\$4,000	\$4,000
Internal Billing Revenue	\$2,000	¥200,000	

Currency conversion rates: 1 USD (\$) = 100 Yen (¥), 1 USD = .75 GBP (£)

Table 12 – 1 Sample Labor Transaction

Project Structures

Companies can execute large scale projects in various ways. This section describes

- Some terminology for internal billing

- Three typical project structures and the requirements, advantages, and disadvantages of each one

About Terminology for Internal Billing

Companies that share resources internally across organizations or projects require flexible methods for accounting for and documenting this type of activity. Oracle Projects provides the following types of internal billing to generate the appropriate documentation:

- **Intercompany Billing.** Intercompany billing, a processing option within the cross charge feature, generates invoices for work performed between two organizations. The provider operating unit generates a Receivables invoice, which is then interfaced to the receiver operating unit's Payables system as a Payables invoice. When a company cross charges transactions across a legal entity boundary, intercompany billing documents are usually required by law. Companies that cross charge within a legal entity can also use intercompany billing to formalize their cross charge process.
- **Inter-Project Billing.** Inter-project billing generates invoices for work performed between two projects. You must define a subcontracting relationship between the provider project and the receiver project. The provider project generates a Receivables invoice, which is then interfaced to the receiver operating unit's Payables system as a supplier invoice for receiver project costs.

Both types of internal billing create the following documents, which offset each other for a net profit and loss effect of zero:

- The provider operating unit generates AR invoices, which record internal revenue and accounts receivable balances against the receiver operating unit.
- The receiver operating unit accepts the corresponding Payables invoices, which record internal costs and accounts payable balances against the provider operating unit.

Internal billing and external billing both generate invoices that conform to the same tax rules.

Distinct Project by Provider Organization

Using the structure shown in Figure 12 – 2, Company ABC divides Project X into four distinct contract projects. Each operating unit owns its respective project (Los Angeles owns X–1, San Francisco owns X–2,

New York owns X-3, and Tokyo owns X-4) and bills the project customer directly.

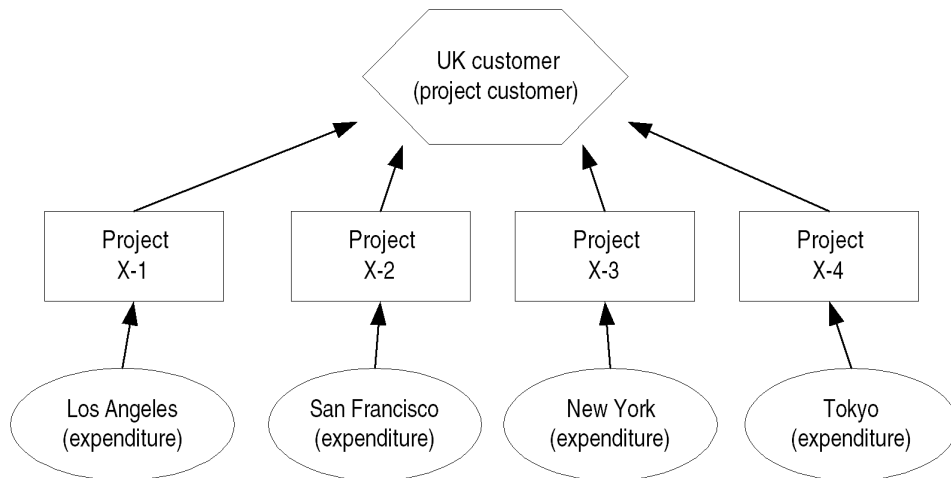
Requirements:

- Oracle Project Costing
- Oracle Project Billing

Advantages: Simplicity, since the operating units create and process their projects independently.

Disadvantages: The company must divide the project work properly, and each resulting project requires an agreement, funding, and a budget to generate customer invoices. In addition, the customer may not want to receive separate invoices from different organizations in your enterprise. Communication and control across the projects for collective status can be difficult.

Figure 12 – 2 Distinct Projects by Provider Organization



Single Project

Using the structure shown in Figure 12 – 3, the LA operating unit (the project owner, or receiver organization) centrally manages Project X. All four operating units (the provider organizations) incur project costs and charge them directly to Project X.

Requirements:

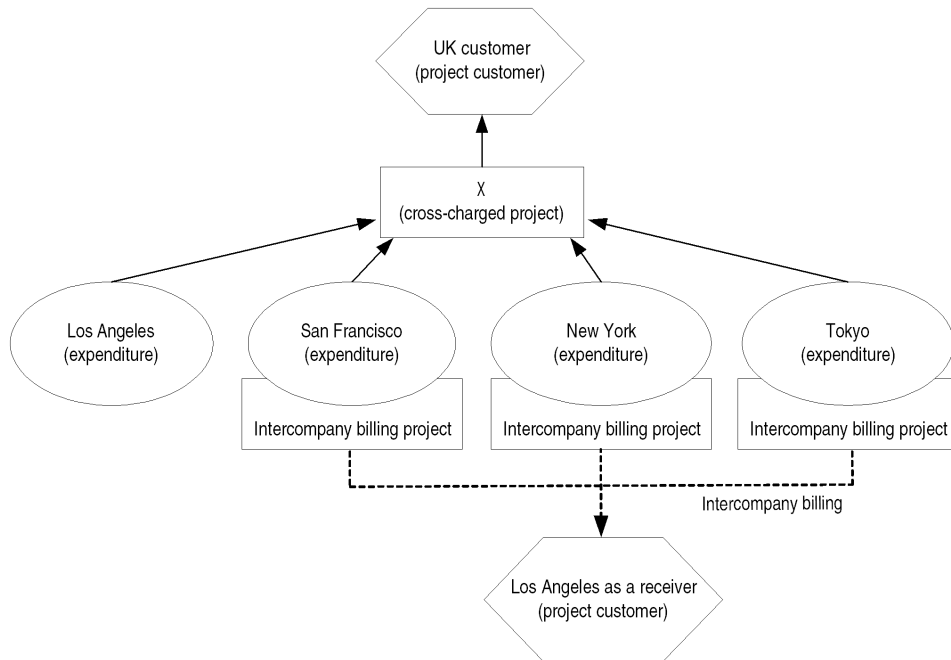
- Oracle Project Costing
- Oracle Project Billing

- Implementation of the cross charge feature
- Depending on how you process cross charge transactions, this solution may also require intercompany billing for the automatic creation of internal invoices

Advantages: Simple project creation and maintenance, since this solution requires a single project. All of the expenditures against Project X, cross charged or not, are available for external customer billing and project tracking via PSI. The customer receives timely, consolidated invoices from Los Angeles for all the work performed regardless of which operating unit provides the resources.

Disadvantages: Requires additional initial overhead for implementing the cross charge feature and creating intercompany billing projects to collect cross charge transactions within each provider organization.

Figure 12 – 3 Single Project



Primary Project with Subcontracted Projects

Using the structure shown in Figure 12 – 4, Company ABC divides Project X into several related contract projects. The LA operating unit owns the primary customer project, or receiver project, and bills the external customer. The related projects, or provider projects, are

subcontracted to their respective internal organizations and internally bill the LA organization to recoup their project costs.

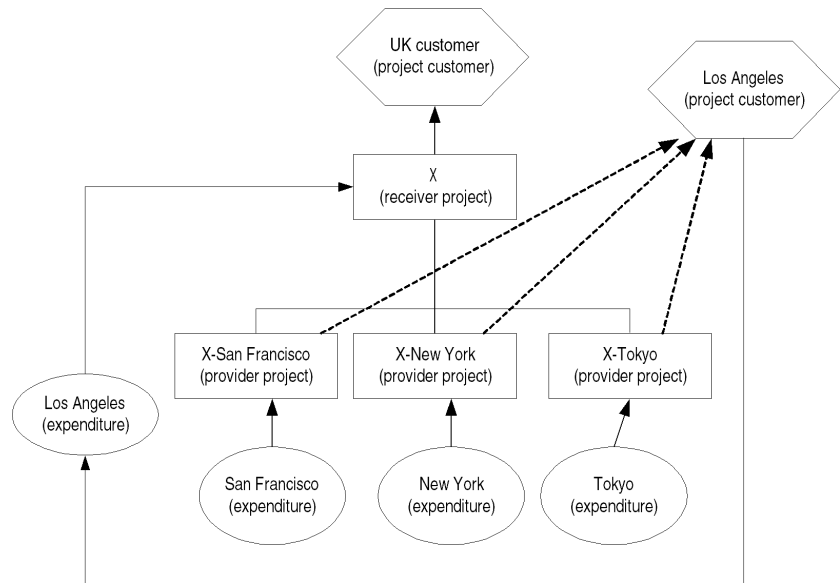
Requirements:

- Oracle Project Costing
- Oracle Project Billing
- Implementation of the inter-project billing feature

Advantages: Flexibility in managing the provider projects. Each provider project is treated and processed the same way as any external customer contract project.

Disadvantages: As with the distinct project structure, this solution requires additional overhead in creating and managing three additional provider projects. The receiver project's status and external customer invoicing depend upon timely completion of the internal billing from all provider projects.

Figure 12 – 4 Primary Project with Subcontracted Projects



Glossary for Cross Charge and Inter-Project Billing

Term	Meaning
Borrowed and Lent	A method of processing cross charge transactions that generates accounting entries to pass cost or share revenue between the provider and receiver organizations within a legal entity. See also: Intercompany Billing.
Cross Charge Transaction	An expenditure item whose provider operating unit is different from the receiver operating unit, the provider organization is different from the receiver organization, or both.
Cross Charge Type	One of the three types of cross charge transactions: intercompany (IC), inter-operating unit (IU), and intra-operating unit (IO).
Cross Charge Project	A project that is able to receive transactions from a different operating unit or organization than the operating unit or organization that owns the project.
Expenditure Operating Unit	The operating unit in which an expenditure is entered and processed for project costing.
Functional Currency	The currency, as defined in the set of books, associated with a project transaction. For example, the cost functional currency is the functional currency for both the project expenditure item and the set of books of the expenditure operating unit. The invoice functional currency is the functional currency for both the project revenue and the set of books of the project operating unit.
Intercompany (IC) Cross Charge Transaction	An expenditure item that crosses legal entity boundaries, which means that the provider and receiver operating units are different and are associated with different legal entities.
Inter-Operating Unit (IU) Cross Charge Transaction	An expenditure item for which the provider and receiver operating units are different, although both operating units are associated with the same legal entity.
Intra-Operating Unit (IO) Cross Charge Transaction	An expenditure item charged entirely within an operating unit, which means that the provider and receiver organizations are different, but the provider and receiver operating units are the same.
Intercompany Billing	A method of internally billing work performed by a provider operating unit and charged to a project owned by a receiver operating unit. The provider operating unit creates a Receivables invoice, which is interfaced as a Payables invoice to the receiver operating unit. See also: Borrowed and Lent.
Intercompany Billing Project	A contract project set up in the provider operating unit to process intercompany billing. The provider operating unit must create one intercompany billing project for each receiver operating unit it wants to charge.
Intercompany Invoice Base Amount	The sum of the amounts in the provider's transfer price functional currency.
Intercompany Invoice Currency	The transaction currency of an intercompany invoice. The user can specify the invoice currency attributes for each intercompany billing project to convert the intercompany invoice base amount to the intercompany invoice amount.
Internal Billing	Intercompany or inter-project billing for work performed between two organizations or projects. The process creates the appropriate documents so the provider operating unit can bill the receiver operating unit.
Inter-Project Billing	A method of internal billing from one project to another, based on a relationship defined between the two projects (also referred to as subcontracting). The provider project creates a Receivables invoice that is interfaced to the receiver project and task as a Payables invoice in the receiver operating unit.

Table 12 – 2 Glossary of Terms (Page 1 of 3)

Term	Meaning
Project Currency	The currency to which all transactions of a project are converted for processing and summarization. In Oracle Projects, the project currency is the same as project functional currency.
Project Operating Unit	The operating unit in which the project and its tasks are created and maintained, and in which the project customer revenue and receivable invoices are processed.
Provider Operating Unit	The operating unit whose resources provide services to another project or organization. For cross charge transactions, the provider operating unit is the expenditure operating unit and the project operating unit owns the intercompany billing project. For inter-project billing, the provider operating unit is the project operating unit that owns the provider project.
Provider Organization	The organization that provides resources to another organization. The default is the expenditure organization or the non-labor resource organization, which can be overridden using the Provider and Receiver Organization Override client extension.
Provider Project	The contract project that performs work on behalf of another (receiver) project. Using inter-project billing, the provider project uses a Receivables invoice to bill the receiver project, and the receiver incurs costs from the resulting Payables invoice.
Provider Transfer Price Functional Currency	The functional currency of the set of books for the provider operating unit.
Provider Transfer Price Functional Currency Amount	The currency amount calculated by applying the transfer price currency conversion attributes (as specified by the implementation options for the provider operating unit) to the transfer price base currency amount.
Receiver Operating Unit	The operating unit whose projects receive services from another project or organization. For cross charged transactions, the receiver operating unit is the project operating unit that owns the cross charged project being charged. For inter-project billing, the receiver operating unit is the project operating unit that owns the receiver project.
Receiver Organization	The organization whose projects receive services from another organization. The default is the project organization, which can be overridden using the Provider and Receiver Organization Override client extension.
Receiver Project	The project for which work is performed by another (provider) project. Using inter-project billing, the receiver project incurs costs from the Payables invoice, as generated from the Receivables invoice created by the provider project.
Receiver Task	The task in the receiver project to which costs are charged on the Payables invoice. The invoice is generated from the provider project's Receivables invoice using inter-project billing.
Standard Bill Rate Schedule Currency	The functional currency of the operating unit in which the standard bill rate schedule is maintained.
Transaction Currency	The currency in which a project transaction is incurred, also referred to as the Entered Currency. For example, cost transaction currency is the transaction currency of a project expenditure item. Invoice transaction currency is the transaction currency of a project invoice. The transaction currency can be any enabled currency.

Table 12 – 2 Glossary of Terms (Page 2 of 3)

Term	Meaning
Transfer Price	The price agreed upon by the provider and receiver organizations involved in a cross charged transaction.
Transfer Price Base Currency	The transfer price basis determines the currency. For a basis of raw or burdened cost, the transfer price base currency is the transaction currency of the cross charged transaction. For a basis of revenue, the transfer price base currency is the functional currency of the set of books for the receiver operating unit. For a basis calculated using the bill rate schedule, the transfer price base currency is the standard bill rate schedule currency.

Table 12 – 2 Glossary of Terms (Page 3 of 3)

Major Features of Cross Charge

The cross charge functionality in Oracle Projects provides the following major features:

- Cross Charge Types: page 12 – 14
- Cross Charge Processing Methods: page 12 – 15
- Cross Charge Controls: page 12 – 16
- Cross Charge Processing Controls: page 12 – 19
- Transfer Pricing: page 12 – 21
- Cross Charge Processes: page 12 – 22
- Cross Charge Adjustments: page 12 – 30
- Multiple Reporting Currencies Support: page 12 – 31

Cross Charge Types

Oracle Projects provides three types of cross charged transactions: intercompany, inter–operating unit, and intra–operating unit. A transaction’s cross charge type depends on whether the provider’s operating unit, organization, and legal entity are different from those of the receiver:

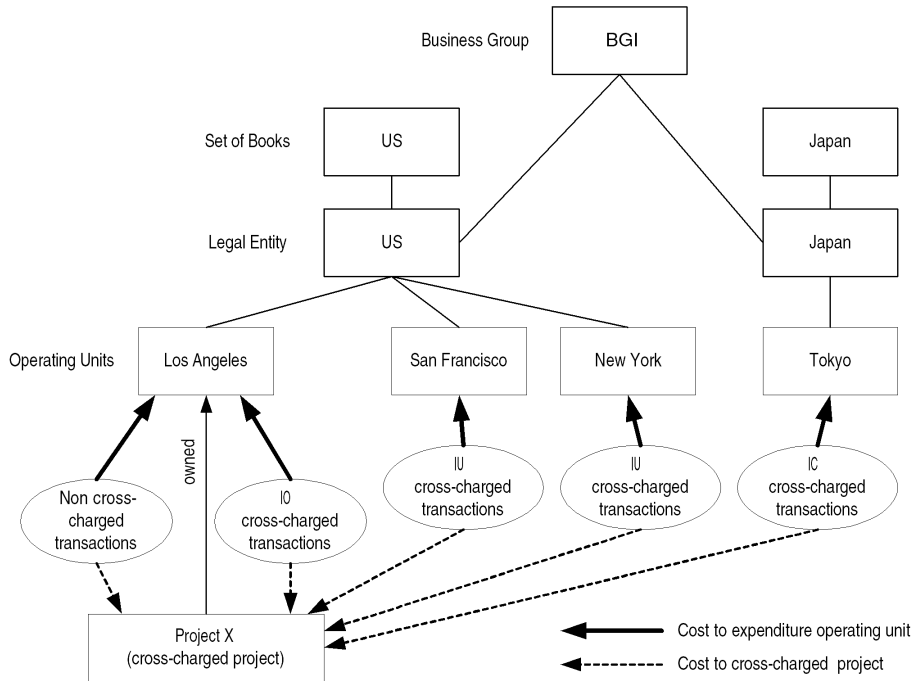
Cross charge type	Conditions
Intercompany	Operating units and legal entities are different
Inter–operating unit	Operating units are different, but legal entities are the same
Intra–operating unit	Operating units and legal entities are the same, but the organizations are different

Table 12 – 3

You cannot change the provider or receiver operating unit, but you can use the Provider and Receiver Organizations Override client extension to override the default provider organization or receiver organization (or both).

Figure 12 – 5 shows different types of cross charge transactions for Project X:

Figure 12 – 5 Cross Charge Types



Cross Charge Processing Methods

You can choose one of the following processing methods for cross charge transactions:

- Borrowed and lent (inter–operating unit and intra–operating unit cross charges)
- Intercompany billing (intercompany and inter–operating unit cross charges)
- No cross charge process (intercompany, inter–operating unit, and intra–operating unit cross charges)

Borrowed and Lent

The borrowed and lent method creates accounting entries to pass costs or share revenue without generating internal invoices. Oracle Projects determines the appropriate cost or revenue amounts based on the transfer price rules of the provider and receiver organizations. Borrowed and lent accounting entries provide a financial view of an organization's performance. This processing method is generally used to measure organizational financial performance for management reporting purposes.

Intercompany Billing

Companies choose the intercompany billing method largely due to legal and statutory requirements. This method generates physical invoices and corresponding accounting entries at legal transfer prices between the internal seller (provider) and buyer (receiver) organizations when they cross a legal entity boundary or operating units.

No Cross Charge Process

Companies generally process cross charges in Oracle Projects using the borrowed and lent or intercompany billing method. However, companies may not need to process cross charge transactions, if, for example, intercompany billing has been performed manually in GL or automatically by an external system. You can identify which cross charge transactions will not undergo cross charge processing. See: Cross Charge Controls: page 12 – 16.

Cross Charge Controls

You can use cross charge controls to specify:

- Which projects and tasks in which operating units can receive transactions from a provider operating unit
- How Oracle Projects processes these cross charged transactions

Cross-charge controls affect all cross charge transactions, regardless of how you enter them. For maximum control, use a combination of cross charge and transaction controls to ensure that only valid cross charges are charged to a specific project and task.

You define cross charge controls at the operating unit, project, and task levels. Oracle Projects applies these controls based on a transaction's cross charge type and cross charge processing method.

You can use intercompany billing processing only for cross charged transactions against indirect or contract projects. If you want to use internal billing for capital projects, you must use the inter-project billing feature.

Intra-Operating Unit Cross Charge Controls

You can charge intra-operating unit cross charges (that is, charges within an operating unit) to any project and task owned by your expenditure operating unit. You can modify the transaction control extension to restrict intra-operating unit cross charge transactions.

Inter-Operating Unit Cross Charge Controls

Oracle Projects provides controls to identify:

- Which projects and tasks in a receiver operating unit can receive inter-operating unit cross charges from a provider operating unit
- Which cross charge processing method to apply to these transactions.

Steps performed by the provider operating unit

Cross-charge implementation options. Select *Allow Cross Charges to all Operating units within Legal Entity* and choose a default processing method (Borrowed and Lent or None).

Internal billing implementation options. If you require intercompany processing for your inter-operating unit cross charged transactions, select *Provider for Internal Billing* and enter the required information.

Provider controls. If you require intercompany processing for your inter-operating unit cross charged transactions, you must also select the appropriate processing method and indicate the name of the intercompany billing project.

Steps performed by the receiver operating unit

Internal billing implementation options. If you require intercompany billing for your inter-operating unit cross charged transactions, select *Receiver for Internal Billing* and enter the required information.

Receiver controls. Enter the name of each provider operating unit that can charge transactions to the specified receiver operating unit.

Project cross charge setup. In the Projects window (Cross Charge option), select *Allow charges from other operating units*.

Intercompany Cross Charge Controls

Oracle Projects provides flexible controls to identify:

- Which projects and tasks in a receiver operating unit can receive intercompany cross charges from a provider operating unit
- Which cross charge processing method to apply to these transactions.

The provider and receiver must share the same business group, GL calendar, and PA calendar.

Steps performed by the provider operating unit

Internal billing implementation options. If you require intercompany processing for your intercompany cross charge transactions, select *Provider for Internal Billing* and enter the required information.

Provider controls. Enter the name of each receiver operating unit that can receive transactions from the specified provider operating unit. If you require intercompany processing for your intercompany cross charged transactions, you must define also select the appropriate processing method and indicate the name of the intercompany billing project.

Steps performed by the receiver operating unit

Internal billing implementation options. If you require intercompany processing for your intercompany cross charge transactions, select *Receiver for Internal Billing* and enter the required information.

Receiver controls. Enter the name of each provider operating unit that can charge transactions to the specified receiver operating unit.

Project cross charge setup. In the Projects window (Cross Charge options), select *Allow charges from other operating units*.

Cross Charge Processing Controls

Cross charge processing controls determine which cross charge method and transfer price rule should be applied to the cross charged transaction. This section describes the cross charge process controls.

Implementation Options Setup

For each provider operating unit or receiver operating unit involved in the cross charge, use the Implementation Options window (Cross Charge and Internal Billing tabs) to specify:

- The default transfer price conversion attributes
- The default cross charge methods for intra–operating unit and inter–operating unit cross charges
- Attributes required as the provider of internal billing (including inter–company billing and inter–project billing)
- Attributes required as the receiver of internal billing

See: Defining Cross Charge Implementation Options: page 12 – 52 and Defining Internal Billing Implementation Options: page 12 – 54.

Provider and Receiver Controls Setup

For each provider operating unit or receiver operating unit involved in the cross charge as, use the Provider/Receiver Controls window (Provider Controls and Receiver Controls tabs) to specify:

- The cross charge method you want to use to process inter–company cross charges and to override default cross charge method for inter–operating unit cross charges.
- Attributes required for the provider operating unit to process inter–company billing to each receiver operating unit. This includes the Inter–company Billing Project and Invoice Group.
- Attributes required for the receiver operating unit to process inter–company billing from each provider operating unit. This includes the supplier site, expenditure type and expenditure organization.

See: Defining Provider and Receiver Controls: page 12 – 55.

Transfer Price Rules and Schedule Setup

Transfer price rules control the calculation of transfer prices for labor and non–labor cross charged transactions. To drive transfer price

calculation for cross charge transactions between the provider and receiver, use the Transfer Price Schedule window to assign labor or non-labor (or both) transfer price rules to the provider and receiver pair on a schedule line. See: Transfer Pricing: page 12 – 21.

Multiple lines in a transfer price schedule could potentially apply to a cross charged transaction. Oracle Projects identifies the appropriate schedule line based on the following hierarchy (in ascending order):

- Organization
- Operating unit
- Legal entity
- Business group

First, Oracle Projects determines whether a line exists for the provider organization and receiver organization involved in the transaction. If none exists, Oracle Projects checks for a line with the provider organization and (in order) receiver operating unit, receiver legal entity, or business group; provider operating unit and (in order) receiver operating unit, legal entity, or business group; and so forth until it performs the final check for a line with the provider business group.

Project and Task Setup

For each project or task, you can decide whether to process labor and non-labor cross charge transactions, and which transfer price schedules are used for transfer price calculation. See: Defining Cross Charge Setup: page 12 – 59.

Transaction Source Setup

To cause the cross charge processes to skip a transaction source, deselect the *Process Cross Charge* option in the Transaction Sources window. See: Transaction Sources 17 – 95.

Expenditure Item Adjustments

You can mark an expenditure item manually to be skipped by the cross charge processes by choosing No Cross Charge Process from the Special menu on the Expenditure Items window.

Client Extensions

Oracle Projects provides following client extensions that you can use to implement your business rules to control cross charge processing:

- Provider and Receiver Organizations Override Extension: page 19 – 152
- Cross Charge Processing Method Override Extension: page 19 – 154
- Transfer Price Determination Extension: page 19 – 157
- Transfer Price Override Extension: page 19 – 160
- Transfer Price Currency Conversion Override Extension: page 19 – 163

Transfer Pricing

“Legal transfer price” refers to the legally accepted billing prices for internal sales. In Oracle Projects, “transfer price” refers to the billing price that two organizations agree upon for cross charge purposes.

Transfer Price Rules

You can define transfer price rules that determine the transfer price amount of cross charge transactions that require borrowed and lent or intercompany billing processing. Oracle Projects provides flexible transfer pricing rules for transfer price calculations. The calculations are based on the:

- Transfer price basis. Base your transfer price on a cross charged transaction’s raw cost, burdened cost, or revenue.
- Cross-charge calculation method. You can optionally perform an additional calculation and apply a markup or discount to the amount determined by the transfer price basis. For the additional calculations, you can apply any burden schedule or standard bill rate schedule in your business group.

Using a standard bill rate schedule allows you to define the schedule in a single operating unit and enforce it across all operating units in your business group.

Oracle Projects automatically converts transfer price amounts to the functional currency of the provider operating unit using the transfer price currency conversion attributes defined in that operating unit. You can use the Transfer Price Conversion Override Extension to adjust these conversion attributes.

Transfer Price Schedules

Once you define your transfer price rules, you create a transfer price schedule to associate these rules to pairs of provider and receiver organizations. In the simplest transfer price schedule, an enterprise would have a single transfer price rule that every organization follows. Oracle Projects supports more complex schedules so your organizations can negotiate their own transfer price rules. You can also define a schedule with one rule that applies to cross charges to a particular organization and another rule for cross charges to all other organizations. You can define one transfer price schedule consisting of different rules for different organization pairs or multiple schedules consisting of different rules for the same pair of organizations.

You can assign different transfer price schedules at the project and task levels to drive transfer price calculations, similar to the way that you can assign standard bill rate schedules at the project and task level to drive project billing for external customers. At the project and task level, you can use separate transfer price schedules for labor and non-labor cross charge transactions.

Cross Charge Processes

Oracle Projects provides the following cross charge processing methods:

- Borrowed and Lent. See: Borrowed and Lent Accounting: page 12 – 22 and Borrowed and Lent Processing Flow: page 12 – 24
- Intercompany Billing. See: Intercompany Billing Accounting: page 12 – 25 and Intercompany Billing Processing Flow: page 12 – 28

Borrowed and Lent Accounting

The borrowed and lent processing method creates accounting entries to pass costs or share revenue (cost and revenue amounts are determined by the transfer price amount) between the provider and receiver organizations within a legal entity.

If costs are being passed from the provider to the receiver, this processing method:

- Debits the cost from the receiver (or lent) organization

- Credits the cost account of the provider (or borrowed) organization

Similarly, if revenue is being shared, this method:

- Debits the revenue from the receiver organization
- Credits the revenue to the provider organization.

You can view these accounting entries in the corresponding reporting sets of books. Oracle Projects provides AutoAccounting functions for borrowed and lent processing. See: AutoAccounting Functions: page 17 – 258.

An inter–operating unit cross charge transaction against a contract project results in the following borrowed and lent accounting entries:

Provider Operating Unit				Receiver Operating Unit			
Process	Accounting	Trans.	Func.	Process	Accounting	Trans.	Func.
Cost	Dr. Labor Expense	\$500	\$500				
	Cr. Labor Clearing	\$500	\$500				
Borrowed and Lent	Dr. Lent	\$2,000	\$2,000				
	Cr. Borrowed	\$2,000	\$2,000				
				Client Revenue	Dr. UBR / UER Cr. Revenue	\$4,000 \$4,000	\$4,000 \$4,000
				Client Invoice	Dr. AR Cr. UBR / UER	£3,000 £3,000	\$4,000 \$4,000

Table 12 – 4 Example: Inter–operating unit borrowed and lent accounting (Page 1 of 1)

An intra–operating unit cross charged transaction against a contract project results in the following borrowed and lent accounting entries:

Provider Operating Unit				Receiver Operating Unit			
Process	Accounting	Trans.	Func.	Process	Accounting	Trans.	Func.
				Cost	Dr. Labor Expense	\$500	\$500
					Cr. Labor Clearing	\$500	\$500
				Borrowed and Lent	Dr. Lent	\$2,000	\$2,000
					Cr. Borrowed	\$2,000	\$2,000
				Client Revenue	Dr. UBR / UER Cr. Revenue	\$4,000 \$4,000	\$4,000 \$4,000
				Client Invoice	Dr. AR Cr. UBR / UER	£3,000 £3,000	\$4,000 \$4,000

Table 12 – 5 Example: Intra–operating unit borrowed and lent accounting (Page 1 of 1)

In both examples (Table 12 – 4 and Table 12 – 5), the automatic intercompany balancing feature in Oracle General Ledger can be used to create additional entries as necessary if the borrowed and lent entries are posted to different balancing segments.

Borrowed and Lent Processing Flow

Borrowed and lent processing requires the following steps:

- The provider operating unit enters or imports cross charge transactions.

- The provider operating unit distributes the costs of the cross charges, which are identified as cross charge transactions by the cost distribution processes. The receiver operating unit must generate revenue if the cross charge transaction's transfer price is based on revenue.
- The provider operating unit runs PRC: Distribute Borrowed and Lent Amounts to determine the transfer price amount and generate the borrowed and lent accounting entries.
- The provider operating unit runs PRC: Interface Cross Charge Distributions to GL to interface the borrowed and lent accounting entries to Oracle General Ledger.
- *(Optional)* You may require the receiver operating unit to run additional customized processes and interface additional accounting entries to Oracle General Ledger. For example, your implementation team may develop customized processes to handle organizational profit elimination to satisfy your company's accounting practices.
- *(Optional)* The provider operating unit may adjust cross charge transactions or perform steps resulting in the reprocessing of borrowed and lent transactions. See: Cross Charge Adjustments: page 12 – 30.

Intercompany Billing Accounting

Intercompany billing accounting entries are based on documents generated by the provider and receiver organizations. The provider and receiver organizations may be in the same set of books or in different sets of books with different charts of accounts. You can view intercompany billing accounting entries in the corresponding reporting sets of books. As this processing method may require input from multiple organizations and employees in your organization, you should establish clear user procedures to ensure the successful completion of the entire process flow. Failure to follow these procedures can result in out of balance intercompany accounts.

Determine the intercompany Receivables invoice accounts

Oracle Projects provides two AutoAccounting functions to determine the revenue and invoice accounts of a provider operating unit's intercompany Receivables invoice. See: AutoAccounting Functions: page 17 – 258.

- **Intercompany Revenue.** This function determines which account receives the credit entry of an intercompany billing Receivables invoice.
- **Intercompany Invoice Accounts.** This function includes the function transactions *Intercompany Receivables* and *Intercompany Rounding*.
 - *Intercompany Receivables* determines which account receives the debit entry of an intercompany billing Receivables invoice.
 - *Intercompany Rounding* determines the accounts for the pair of debit and credit entries due to intercompany billing invoice currency rounding.

Determine the intercompany Payables invoice accounts

You can modify the Supplier Invoice Charge Account Workflow process to determine and post the accounting entries for a receiver operating unit's intercompany Payables invoice. The process usually debits an internal cost or WIP account and credits the intercompany payables account in the receiver operating unit.

See: Workflow: Project Supplier Invoice Account Generation: page 17 – 306.

An intercompany cross charged transaction against an indirect project results in the following intercompany billing accounting entries:

Provider Operating Unit				Receiver Operating Unit			
Process	Accounting	Trans.	Func.	Process	Accounting	Trans.	Func.
Cost	Dr. Labor Expense	¥50,000	¥50,000				
	Cr. Labor Clearing	¥50,000	¥50,000				
IC AR	Dr. IC AR	¥200,000	¥200,000		Dr. IC Cost	¥200,000	\$2,000
Invoice	CR. IC Revenue	¥200,000	¥200,000		CR. IC Payable	¥200,000	\$2,000

Table 12 – 6 Example: Intercompany billing accounting for an indirect project (Page 1 of 1)

An intercompany cross charged transaction against a contract project results in the following intercompany billing accounting entries:

Provider Operating Unit				Receiver Operating Unit			
Process	Accounting	Trans.	Func.	Process	Accounting	Trans.	Func.
Cost	Dr. Labor Expense	¥50,000	¥50,000				
	Cr. Labor Clearing	¥50,000	¥50,000				
IC AR	Dr. IC AR	¥200,000	¥200,000	IC AP	Dr. IC Cost	¥200,000	\$2,000
Invoice	CR. IC Revenue	¥200,000	¥200,000	Invoice	CR. IC Payable	¥200,000	\$2,000
				Client	Dr. UBR / UER	\$4,000	\$4,000
				Revenue	Cr. Revenue	\$4,000	\$4,000
				Client	Dr. AR	\$4,000	\$4,000
				Invoice	Cr. UBR / UER	\$4,000	\$4,000

Table 12 – 7 Example: Intercompany billing accounting for a contract project (Page 1 of 1)

Determine the provider cost reclassification accounts

Oracle Projects provides a pair of debit and credit AutoAccounting functions to support the reclassification of cost in the provider operating unit upon generating intercompany invoices. For example, a provider operating unit may need to reclassify project WIP costs against a contract project using cost accrual as intercompany costs upon billing the receiver operating unit. Oracle Projects provides the following AutoAccounting functions for this purpose:

- Provider Cost Reclass Dr. This function determines which account receives the debit entry of the cost reclassification.
- Provider Cost Reclass Cr. This function determines which account the credit entry of the cost reclassification.

A provider cost reclassification results in the following intercompany billing accounting entries:

Provider Operating Unit				Receiver Operating Unit			
Acctng.	Accounting Entry	Trans.	Function	Acctng.	Accounting Entry	Trans.	Func.
Cost	Dr. WIP	¥50,000	¥50,000				
	Cr. Labor Clearing	¥50,000	¥50,000				
Provider Cost Reclass.	Dr. Labor Expense	¥50,000	¥50,000				
	Cr. WIP	¥50,000	¥50,000				
IC AR Invoice	Dr. IC AR	¥200,000	¥200,000	IC AP Invoice	Dr. IC WIP	¥200,000	\$2,000
	Cr. IC Revenue	¥200,000	¥200,000		Cr. IC Payable	¥200,000	\$2,000
				Client Revenue	Dr. UBR/ UER	\$4,000	\$4,000
					Cr. Revenue	\$4,000	\$4,000
				Cost Accrual	Dr. Cost Accrual	\$500	\$500
					Cr. WIP Contra	\$500	\$500
				Client Invoice	Dr. AR	£3,000	\$4,000
					Cr. UBR/ UER	£3,000	\$4,000
				Close Project	Cr. IC WIP	\$1,500	\$1,500
					Dr. / Cr. Cost Accrual*	\$1,500	\$1,500

Table 12 – 8 Example: Intercompany billing accounting with provider cost reclassification (Page 1 of 1)

The example in Table 12 – 8 shows that the provider operating unit originally posted a cross charged transaction to a WIP account during the cost distribution process. The intercompany billing process then transfers the WIP amount with a markup to the receiver operating unit and generates the provider cost reclassification accounting entries. The consolidated expenditure is always booked as WIP after costing and intercompany billing.

Intercompany Billing Processing Flow

Intercompany billing processing requires the following steps:

1. The provider operating unit enters or imports cross charge transactions.
2. The provider operating unit distributes costs of the cross charges, which are identified as cross charge transactions by the cost distribution processes. The receiver operating unit must generate revenue if the cross charge transaction's transfer price is based on revenue.

3. The provider operating unit runs PRC: Generate Intercompany Invoice to generate draft intercompany invoices with the associated intercompany receivable and revenue accounts and transfer price.
4. The provider operating unit reviews, approves, and releases the intercompany invoices.
5. The provider operating unit interfaces the approved intercompany invoices to Oracle Receivables. You can include the following activities in this process:
 - Accounting for invoice rounding
 - Creation of the receivable invoices including sales tax
 - PRC: Tieback Invoices from Receivables, which automatically creates corresponding intercompany invoice supplier invoices ready to be interfaced to the receiver operating unit's Oracle Payables.

Use Oracle Receivables to print the invoice as well as to interface the accounting entries to the provider operating unit's General Ledger.

6. The receiver operating unit imports the intercompany supplier invoices to Oracle Payables. This import process calculates recoverable and non-recoverable tax amounts. Upon review and approval in Oracle Payables, the receiver operating unit interfaces the accounting entries to Oracle General Ledger.
7. The receiver operating unit interfaces the supplier invoice to Oracle Projects, which pulls in the non-recoverable tax amounts as additional project costs.
8. The provider operating unit interfaces any cost reclassification entries to Oracle General Ledger.
9. (Optional) The receiver operating unit runs additional customized processes and interfaces additional accounting entries to Oracle General Ledger. For example, your implementation team may develop customized processes to handle organizational profit elimination to meet your company's accounting practices.
10. (Optional) The provider operating unit adjusts cross charge transactions or performs the steps resulting in the reprocessing of intercompany transactions. See: Cross Charge Adjustments: page 12 – 30.

Cross Charge Adjustments

You can adjust the details and processing of cross charge transactions to recalculate their cost or regenerate revenue or an invoice. Some situations requiring such adjustments include:

- Data entry error requiring the correction of project or task information, hours worked, or currency conversion attributes, all of which can affect cost distribution of the transaction.
- Associating the wrong provider organization with a receiver organization, or vice versa, which can result in incorrect cross charge processing.
- Applying the wrong transfer price rule to a transaction because of faulty creation of a transfer price rule, transfer price schedule, or project.
- Incorrect accounting entries due to changed accounting practices or incorrect AutoAccounting definitions, which impact accounting for cost distribution, billing, and cross charge processing.
- Incorrect intercompany invoices due to changes in tax definitions, which impact the generation of intercompany invoices.
- Incorrect conversion of the transfer price amount from the transaction currency to the functional currency of the provider operating unit.

You can make certain adjustments:

- Use the Tools menu in the Expenditure Items window to:
 - Mark a cross charge transaction for cross charge reprocessing. Use this action if you need to correct certain attributes, transfer price information, or the accounting of a cross charge transaction.
 - Mark a cross charge transaction to be skipped by cross charge processing.
 - Change the transfer price currency conversion attributes. As a result, the transfer price functional currency amount will change, and Oracle Projects will mark the transaction for cross charge reprocessing.
- Use the Special menu in the Expenditure Items window to split a cross charge transaction that has already undergone cross charge processing. Such splits will result in a reversal of the original

transaction, depending on the processing method (a reversing transaction for borrowed and lent or a credit memo for intercompany billing). If you split a cross charge transaction before it has been processed, the cross charge processes process only the two new transactions and not the original or reversing transactions. The same logic applies to transferring cross charge transactions.

- Use the Invoice Review window to cancel an intercompany invoice. Oracle Projects will generate an intercompany credit memo to reverse the existing internal receivable invoice and corresponding supplier invoice the next time you run PRC: Generate Intercompany Invoice.
- If you changed a burden or bill rate schedule that affects the cost or revenue amount of the transfer price basis, run the cost distribution and generate draft revenue programs to mark affected cross charge transactions for reprocessing.
- If you changed a burden schedule that is used in a transfer price rule, all cross charge transactions processed using that rule will be marked for cross charge reprocessing.
- Use the mass update function of the organization reorganization feature to mark affected transactions for cross charge reprocessing.
- (*Intercompany billing only*) If you have already generated an intercompany billing invoice based on cross charged transactions, adjustments to the transactions will result in the generation of a credit memo that reverses the existing invoice.

Multiple Reporting Currencies Support

Cross-charged transactions that remain in the same set of books are handled using the standard functionality of the MRC feature. Cross charge transactions that cross a General Ledger set of books are handled as follows:

How MRC handles cross charged transactions

When a provider operating unit charges transactions to a receiver operating unit with a different set of books, MRC records are created on each transaction for all reporting sets of books associated with the provider set of books. Cost and transfer price amounts of the MRC

records are converted to the respective reporting currencies, and revenue and invoice amounts are left blank.

The following MRC amounts will appear in the Expenditure Items window of any reporting responsibility associated with the provider set of books:

- **Cost amounts.** Displayed in the functional currency of the login responsibility.
- **Transfer price amounts.** Displayed in the functional currency of the login responsibility (also visible in the View Accounting window).
- **Revenue and invoice amounts.** Displayed in the project currency of the original transactions.

For each cross charged transaction, MRC records are also created for all reporting sets of books associated with the receiver set of books. Revenue and invoice amounts of the MRC records are converted to the respective reporting currencies, and cost and transfer prices amounts are left blank.

The following MRC amounts will appear in the Expenditure Items window of any reporting responsibility associated with the receiver set of books:

- **Cost amounts.** Displayed in the functional currency of the original transactions (also visible from the Cost Distribution Lines window).
- **Transfer price amounts.** Displayed in the functional currency of the original transactions (also visible from the View Accounting window).
- **Revenue and invoice amounts.** Displayed in the functional currency of the login responsibility.

How MRC handles cross charge distributions and intercompany invoice details

MRC records are created for each cross charge distribution and intercompany invoice detail for all reporting sets of books associated with the provider set of books. The appropriate processes convert the transfer price amounts to the functional currencies of the reporting sets of books and store these converted amounts in the MRC records.

The Period Close Exception report verifies that MRC data for cross charge distributions has also been interfaced to Oracle General Ledger or other Oracle Applications, as appropriate.

Major Features of Inter–Project Billing

Inter–project billing functionality in Oracle Projects handles the creation of inter–project billing project relationships and the billing of inter–project transactions. These features are described in detail on the following pages.

Inter–Project Billing Project Relationships

You use the inter–project billing feature to address the business requirements of a primary (or receiver) project that delegates its tasks to related subcontract (or provider) projects. The provider and receiver projects can be in the same or different operating units and even in different business groups if the provider and receiver operating units have enabled these roles for themselves and identified each other as valid providers and receivers.

To establish the project relationship, create a receiver project and identify the tasks that will be performed by other projects as receiver tasks. Then, define one or more provider projects and specify the receiver project and task to charge in the Project Customers window. You can do this only if you have selected existing customers that are associated with a receiver operating unit on the Implementation Options window (Internal Billing tab).

Inter–Project Billing Process

The inter–project billing feature uses processes and AutoAccounting functions similar to those used for external customer billing with the following differences:

The inter–project billing process generates an additional Payables invoice in the receiver operating unit against the receiver project and task based on the provider operating unit's Receivables invoice. The Payables invoice is automatically generated when the provider operating unit runs PRC: Tieback Invoices from Receivables. Oracle Projects generates inter–project invoices even when the provider and receiver projects are in the same operating unit.

The receiver operating unit must import the internal Payables invoices to Oracle Payables. The Open Interface Import process calculates recoverable and non–recoverable tax amounts. After the invoices have been reviewed and approved in Oracle Payables, interface the

associated accounting entries to the receiver operating unit's General Ledger. The invoice is treated like any other supplier invoice that is interfaced to Oracle Projects as costs for the receiver project and tasks.

Inter-project billing uses the same draft revenue and draft invoice processes as external customer billing. As a result, the provider project in inter-project billing tracks unbilled receivable and unearned revenue amounts and accounts for them accordingly. You can configure AutoAccounting and the Account Generator to generate different accounts for inter-project billing and third-party receivables and payables.

See Also

Workflow: Project Supplier Invoice Account Generation: page 17 – 306

Currency Model in Oracle Projects

Oracle Projects uses the following models when converting currency from one denomination to another.

Figure 12 – 6 Cost Transaction Currency Model

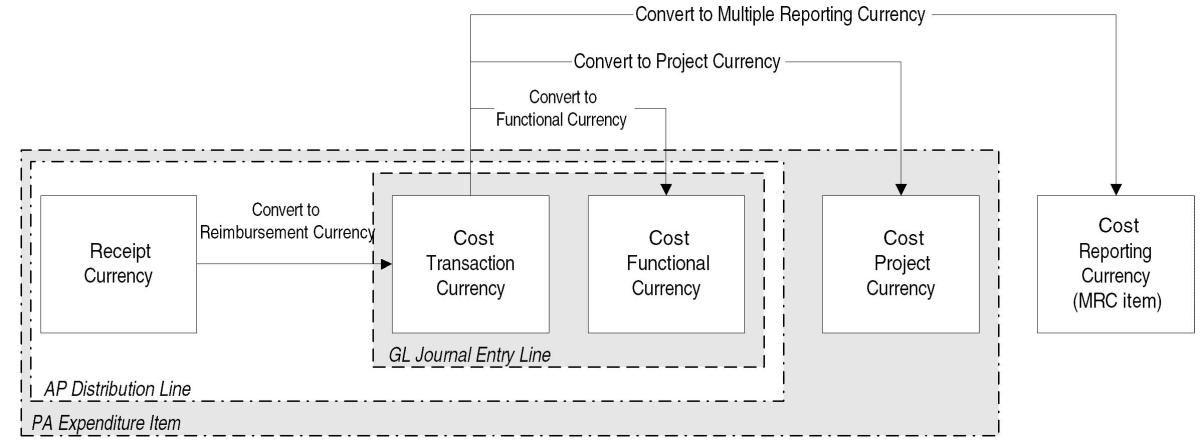


Figure 12 – 7 Customer Billing Invoice Currency Model

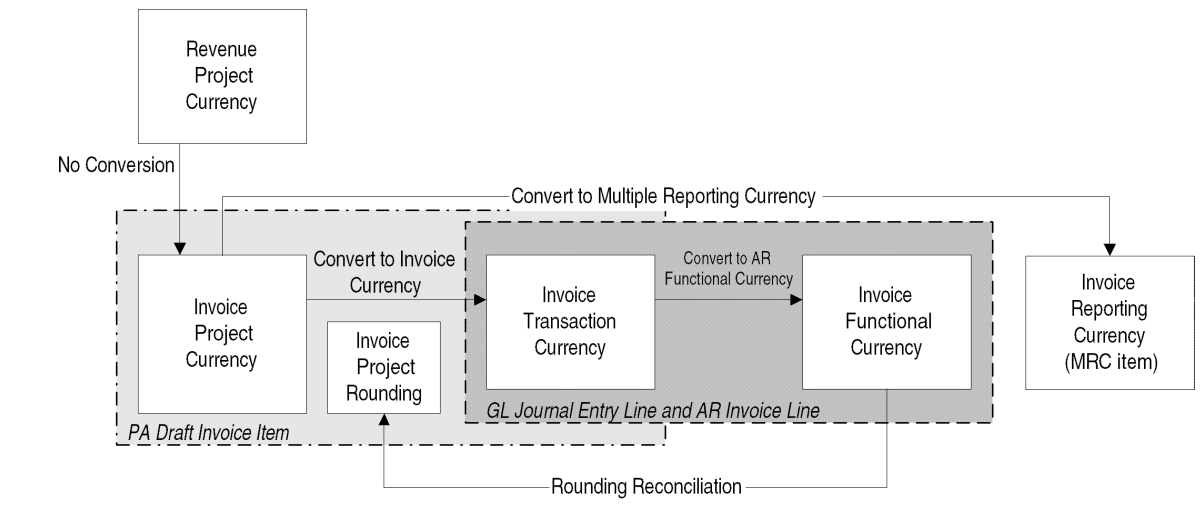
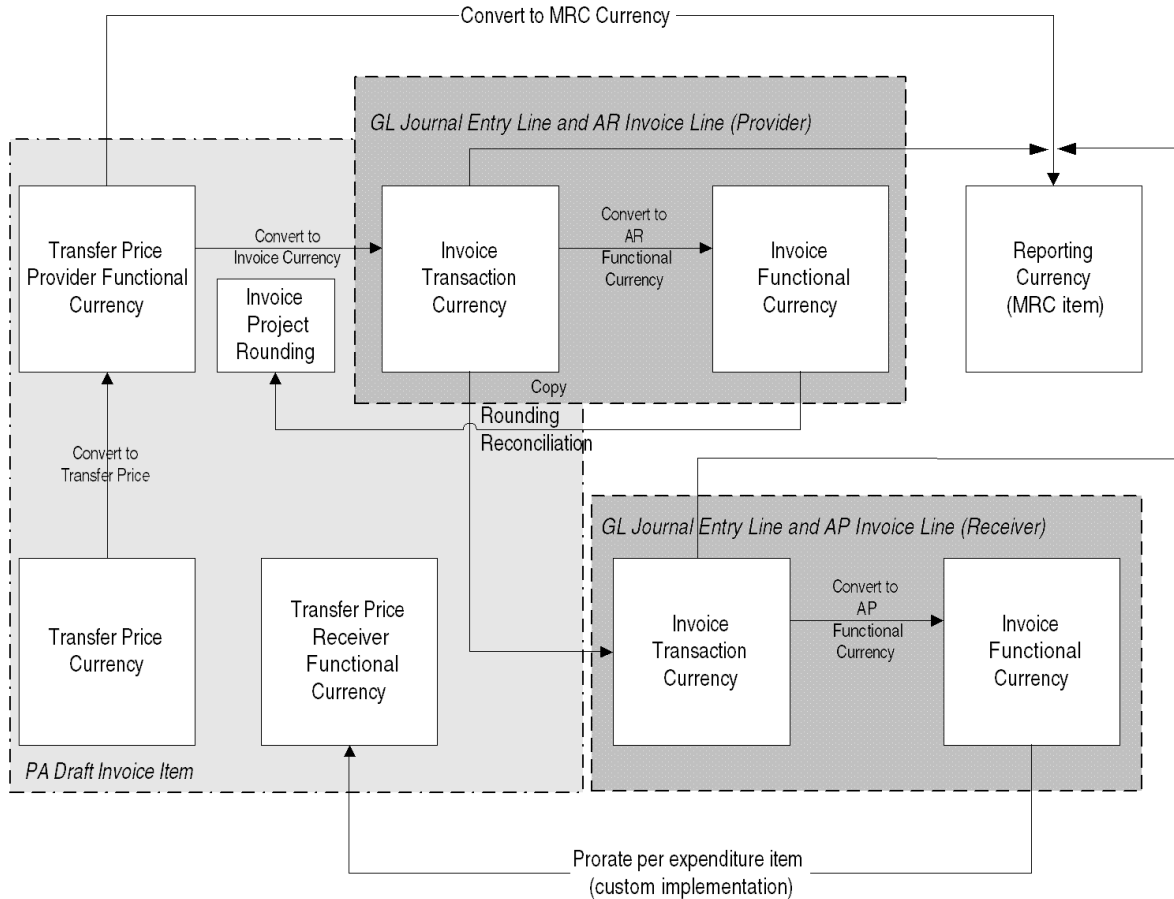


Figure 12 – 8 Intercompany Billing Invoice Currency Model



Setting Up and Processing Cross Charge and Inter–Project Billing

This section covers the following topics:

Setting Up Cross Charge and Inter–Project Billing: page 12 – 38

Prerequisites: page 12 – 38

Global Setup: page 12 – 38

Operating Unit Setup: page 12 – 41

Procedures for Cross Charge and Inter–Project Billing: page 12 – 47

Defining Transfer Price Rules: page 12 – 48

Defining Transfer Price Schedules: page 12 – 48

Defining Cross Charge Implementation Options: page 12 – 52

Defining Internal Billing Implementation Options: page 12 – 54

Defining Provider and Receiver Controls: page 12 – 55

Defining Cross Charge Setup: page 12 – 59

See Also

Introduction to Cross Charge and Inter–Project Support: page 12 – 3

Processing Flow for Cross Charge and Inter–Project Billing: page 12 – 62

Setting Up Cross Charge and Inter–Project Billing

This section describes how to implement the cross charge and internal billing features. The description of each implementation step indicates whether the step is required or optional for the processing method you choose (borrowed and lent and intercompany billing), or if you are using inter–project billing.

The steps are organized in the following sections:

Prerequisites: page 12 – 38

Global Setup: page 12 – 38

Operating Unit Setup: page 12 – 41

See Also

Cross Charge and Inter–Project Billing: page 12 – 2

Introduction to Cross Charge and Inter–Project Support: page 12 – 3

Procedures for Cross Charge and Inter–Project Billing: page 12 – 47

Processing Flow for Cross Charge and Inter–Project Billing: page 12 – 62

Cross Charge Client Extensions: page 19 – 151

Prerequisites

- ☐ Install and implement Oracle Project Billing, Oracle Receivables, and Oracle Payables (for internal billing only). See: *Oracle Receivables User's Guide* and *Oracle Payables User's Guide*
- ☐ Define organizations and organization hierarchies.
- ☐ Define operating units and legal entities that will share resources.

Global Setup

Perform the following steps at the global level. These steps are shared across all operating units. Most of the steps are required for both

internal and external billing processes. Depending on your business needs, many of the required steps are already accomplished by the setup steps for project billing.

1. Define transaction sources. See: Transaction Sources: page 17 – 95 (This step is the same as Step 20 in the Implementation Checklist on page 17 – 9.)

If you import cross charge transactions that are processed by an external system, enable the option for that system's transaction source. Doing so means that Oracle Projects does not perform any cross charge processing on transactions originating from that source.

Borrowed and Lent Accounting: Optional

Intercompany billing: Optional

Inter-project billing: Not applicable

2. Define agreement types. See: Agreement Types: page 17 – 135. (This step is the same as Step 37 in the Implementation Checklist: page 17 – 11.)

You can define additional agreement types to help you distinguish internal agreements from those with your external customers.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional if you have completed project billing setup

Inter-project billing: Optional if you have completed project billing setup

3. Define billing cycles. See: Billing Cycles: page 17 – 130. (This step is the same as Step 34 in the Implementation Checklist on page 17 – 11.)

You can define a separate billing cycle for internal billing purposes, so you can bill internal and external customers on different schedules.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional if you have completed project billing setup

Inter-project billing: Optional if you have completed project billing setup

4. Define invoice formats. See: Invoice Formats: page 17 – 148 and About Invoice Formats for Intercompany Billing: page 17 – 150.

(This step is the same as Step 39 in the Implementation Checklist on page 17 – 11.)

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional if you have completed project billing setup

Inter–project billing: Optional if you have completed project billing setup

5. Customize the Payables Open Interface Workflow so that you can override the default attributes for currency conversion.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional

Inter–project billing: Optional

You can modify the AP Open Interface Workflow process to override the default attributes used to convert the internal Payables invoice from the transaction currency to the functional currency of the receiver operating unit. See: Payables Open Interface Workflow *Oracle Payables User's Guide*.

6. Define supplier types.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional

Inter–project billing: Optional

You can define separate supplier types in Oracle Payables for internal suppliers to distinguish them from external suppliers. You can also define separate supplier types in Oracle Purchasing if you use that application.

See: Entering Suppliers *Oracle Payables User's Guide* and *Oracle Purchasing User's Guide*.

7. In Oracle Payables, define suppliers for the provider operating units.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required

Inter–project billing: Required

8. Define expenditure types to associate with internal Payables invoices and distributions that contain project information. See: Expenditure Types: page 17 – 87. (This step is the same as Step 18 in the Implementation Checklist on page 17 – 9.)

Associate the expenditure types that you define in this step with the Supplier Invoices expenditure type class. (These expenditure types are also used to create non-recoverable tax lines on internal Payables invoices.)

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional if you have completed project costing setup

Inter-project billing: Optional if you have completed project costing setup

9. Define customers in Oracle Receivables for the receiver operating units. See: *Oracle Receivables User's Guide*.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required

Inter-project billing: Required

10. Define transfer price rules. Repeat this step for each business group. See: *Defining Transfer Price Rules*: page 12 – 48.

Borrowed and Lent Accounting: Required

Intercompany billing: Required

Inter-project billing: Not applicable

11. Define transfer price schedules. Repeat this step for each business group. See: *Defining Transfer Price Schedules*: page 12 – 50.

Borrowed and Lent Accounting: Required

Intercompany billing: Required

Inter-project billing: Not applicable

Operating Unit Setup

12. Define cross charge implementation options for every operating unit that uses the cross charge feature. See: *Defining Cross Charge Implementation Options*: page 12 – 52.

Borrowed and Lent Accounting: Required

Intercompany billing: Required

Inter-project billing: Not applicable

13. Define internal billing implementation options for every operating unit that uses the internal billing feature of Oracle Projects as either a provider or receiver organization. See: *Defining Internal Billing Implementation Options*: page 12 – 54

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required

Inter–project billing: Required

14. In Oracle Payables, define a supplier site for each internal suppliers that provides cross charged transactions to the current operating unit. See: *Oracle Payables User's Guide*.

Payables invoices created by the internal billing process are sent to these supplier sites. When defining an internal supplier site, specify a Payables account created for internal billing purposes.

See: *Entering Suppliers Oracle Payables User's Guide*.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each receiver operating unit

Inter–project billing: Required for each receiver operating unit

15. In Oracle Receivables, define a customer bill and ship site for each internal customer that receives internal invoices from the current operating unit. See: *Oracle Receivables User's Guide*.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each receiver operating unit

Inter–project billing: Required for each receiver operating unit

16. Define a project type of the class Contract for intercompany billing projects.

Select the Intercompany Billing Project check box to distinguish this project type from non–intercompany billing project types.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter–project billing: Not applicable

17. Define a project template to use for intercompany billing projects. Use one of the project types defined in the previous step (Step 16).

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter-project billing: Not applicable

18. To use intercompany billing, set up an intercompany billing project for each receiver operating unit that receives charges from the current operating unit.

Use the project template created in the previous step (Step 17).
Then enter the project details:

- Enter the internal customer defined for the receiver operating unit in Step 9: page 12 – 41. The project must have only one customer with a contribution level of 100%.
- Enter the bill and ship sites defined in Step 15: page 12 – 42.
- Select one of the invoice formats defined in Step 4: page 12 – 39.
- Select one of the billing cycles defined in Step 3: page 12 – 39.
- Enter the intercompany Receivables manager as the project manager.
- Enter billing currency and conversion attributes as required by the receiver operating unit.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter-project billing: Not applicable

19. Define an agreement with a soft limit to fund the intercompany billing project.

Enter the receiver operating unit as the customer, and an agreement type as defined in Step 2: page 12 – 39.

Enter the receiver operating unit as the customer, and an agreement type: page 12 – 39.

Use the agreement to fund the corresponding intercompany billing project, the Agreements window automatically updates the baselined amount from the funding amount (in other words, you do not need to create a budget for the project). Oracle Projects uses this agreement to generate internal Receivables invoices.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter-project billing: Not applicable

20. Define provider and receiver controls. See: Defining Provider and Receiver Controls: page 12 – 55.

Borrowed and Lent Accounting: Optional

Intercompany billing: Required

Inter-project billing: Required

21. In Oracle Receivables, define tax account codes for the tax amounts on internal Receivables invoices. See: Defining Automatic Accounting in Oracle Receivables: page 18 – 61.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter-project billing: Required for each provider operating unit

22. In Oracle Payables, define tax codes to apply separate tax distributions on internal AP invoices. See: Defining Automatic Accounting *Oracle Receivables User's Guide*.

Enable the Use Automatic Tax Calculation Payables option in Payables. Choose Supplier Site for the calculation level and override it at the line level.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each receiver operating unit

Inter-project billing: Required for each receiver operating unit

23. Verify that Receivables and Payables share the same tax codes for tax lines on internal invoices.

The internal billing processes use the same tax codes when creating both Receivables and Payables invoices.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider and receiver operating unit pair

Inter-project billing: Required for each provider and receiver operating unit pair

24. Define AutoAccounting rules for cross charge transactions processed for intercompany billing.

Intercompany billing accounting entries in the provider operating unit include a debit to an Intercompany Receivables account and a credit to an Intercompany Revenue account. Oracle Projects provides the *Intercompany Revenue Account* and *Intercompany Invoice Accounts* AutoAccounting functions to determine the appropriate intercompany revenue and receivables accounts:

For more information on the related function transactions and parameters, see: *AutoAccounting Functions*: page 17 – 258.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each provider operating unit

Inter-project billing: Not applicable

25. Define AutoAccounting Rules for Provider Cost Reclassifications.

If you have enabled provider cost reclassification for intercompany billing, define AutoAccounting Rules for provider cost reclassification entries using the *Provider Cost Reclass Dr* and *Provider Cost Reclass Cr* functions. See: *AutoAccounting Functions*: page 17 – 258.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Optional

Inter-project billing: Not applicable

26. Define AutoAccounting Rules for Borrowed and Lent Transactions.

Define AutoAccounting rules for borrowed and lent cross charges in each provider operating unit (these transactions are processed in the provider operating units).

Use the Borrowed Account and Lent Account AutoAccounting functions to determine the appropriate intercompany borrowed and lent accounts.

For more information on the related function transactions and parameters, see: *AutoAccounting*.

Borrowed and Lent Accounting: Required for each provider operating

Intercompany billing: Not applicable

Inter-project billing: Not applicable

27. In Oracle Payables, modify the Workflow process *Supplier Invoice Charge Account* so that it returns a generic cost account for internal invoices.

You can use different supplier types to differentiate between regular and internal invoices. You can further differentiate internal invoices between intercompany and inter-project invoices by specifying the appropriate invoice source for Projects intercompany invoices and inter-project invoices

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Required for each receiver operating unit

Inter-project billing: Required for each receiver operating unit

28. Define cross charge setup information for projects and tasks. See: *Defining Cross Charge Setup*: page 12 – 59

Borrowed and Lent Accounting: Required

Intercompany billing: Required

Inter-project billing: Not applicable

29. Define a receiver project for inter-project billing.

If you want to define a receiver project so that work on some or all of the chargeable, lowest tasks is performed on separate projects, navigate to the Task Details window for the appropriate task. Select *Receive Invoices from another Project* to indicate that this task will receive inter-project invoices. You can select this option only if you have identified the current operating unit as a receiver operating unit and if the project does not use an intercompany billing project type.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Not applicable

Inter-project billing: Required

30. Define a provider project for inter-project billing by enabling the *Bill another Project* option on the Project Customers window. See *Project Customers Window*: page 2 – 43.

Define a provider project to perform work on the lowest task of a receiver project. The project must be a contract project but cannot use an intercompany billing project type. You can define a provider project in any operating unit that has been identified as a provider operating unit.

Borrowed and Lent Accounting: Not applicable

Intercompany billing: Not applicable

Inter-project billing: Required

Procedures for Cross Charge and Inter–Project Billing

This section contains the procedures referred to in the setup steps for cross charge and inter–project billing. Use this section in conjunction with the relevant implementation steps. See: Setting Up Cross Charge and Inter–Project Billing: page 12 – 38:

Defining Transfer Price Rules: page 12 – 48

Defining Transfer Price Schedules: page 12 – 50

Defining Cross Charge Implementation Options: page 12 – 52

Defining Internal Billing Implementation Options: page 12 – 54

Defining Provider and Receiver Controls: page 12 – 55

Defining Cross Charge Setup: page 12 – 59

See Also

Cross Charge and Inter–Project Billing: page 12 – 2

Introduction to Cross Charge and Inter–Project Support: page 12 – 3

Processing Flow for Cross Charge and Inter–Project Billing: page 12 – 62

Defining Transfer Price Rules

Transfer Price Rules (Vision Services: USD)

Name: **150% of Non-Labor**

Type: **Non_labor**

Effective Dates:
From: **23/AUG/1989**
To:

Description: **150% of Non-Labor Cost is the Transfer Price**

Basis: **Burden Cost**

Use:

☐ Basis

☒ Burden Schedule

☐ Bill Rate Schedule

Operating Unit:

Schedule:

Apply: **50** %

Define transfer price rules at the business group level to determine how Oracle Projects calculates the transfer price for cross charged transactions.

Each rule consists of attributes that you can define:

- Rule name, type, and description, and when it is effective
- Basis and calculation method
- Rate (percentage) at which to apply the rule

Changes to transfer price rules affect only future transactions. To change a previously processed transaction, adjust the transaction manually from the Expenditure Items window.

Before you define a transfer price rule, you must define the bill rate or burden schedule that you want to use in the rule (if applicable). See:

Bill Rate Schedules: page 17 – 137 and Burdening (Cost Plus Processing): page 5 – 16.

► **To define a transfer price rule:**

1. Navigate to the Transfer Price Rules window.
2. Enter a unique name for the rule, select a type (Labor or Non-Labor), and specify a description and the effective dates.
3. For the [] field (descriptive flexfield), enter the information specified by your system administrator.
4. For Basis, select Raw Cost, Burdened Cost, or Revenue.
5. Select a calculation method to use to determine the transfer price:

Method	Description
Basis	Use the transfer price with no further adjustments.
Burden Schedule	Specify the name of an existing burden schedule to apply to the basis. See: Burden Schedules: page 17 – 117.
Bill Rate Schedule	For Operating Unit, specify the name of the operating unit that owns the bill rate schedule that you want to use. See Defining Bill Rate Schedules: page 17 – 137. For Schedule, specify a bill rate schedule to apply to the basis. The window will display the schedule's currency code.

Table 12 – 9 Transfer Price Rule window (Page 1 of 1)

6. For Apply, enter a percentage (zero or any positive number).

The percentage is the amount of a markup or discount to the transfer price amount calculated by the rule. Numbers less than 100 indicate a discount, and numbers greater than 100 indicate a markup. For example, to give a 20% discount on a bill rate, enter 80.
7. Save your work.

[illegible]

A transfer price schedule is a list of transfer price rules. The schedule specifies which rules determine the transfer price amount for transactions charged from a provider organization to a receiver organization.

You can define different schedules to use different rules for various projects and tasks between the same pairs of provider and receiver organizations. For example, you can define one schedule that contains all the rules for capital projects and another for contract projects.

Changes to a transfer price schedule affect only future transactions. To change a previously processed transaction, use the Expenditure Items window to adjust the transaction manually.

Before you define transfer price schedule, you must define:

- Organizations
- Transfer price rules (see: Defining Transfer Price Rules: page 12 – 48)

► **To define a new transfer price schedule:**

1. Navigate to the Transfer Price Schedules window.
2. Enter a unique name for the schedule, select a type (Labor or Non-Labor), and specify a description and the effective dates.

The schedule is effective during the dates you specify. You will be able to use this schedule for projects and tasks within the effective date range only.

3. For the [] field (descriptive flexfield), enter the information specified by your system administrator.
4. In the Schedule Lines region, specify the provider and receiver organizations and the transfer price rules that you want to associate with those rules.
5. Enter the schedule lines:

For this field...	Do This
Line Num	Enter a number greater than zero to specify the display order for the lines.
Provider	Enter the name of the provider organization. Choose an organization, operating unit, legal entity, or business group.
(Optional) Receiver	Choose an organization, operating unit, legal entity, or business group. If you leave this field blank, this transfer price schedule applies to any receiver organization receiving transactions from the specified provider organization.
Labor Rule* Non Labor Rule*	For Labor Rule, choose a valid transfer type rule with a type of Labor for this provider and receiver organization pair. For Non Labor Rule, choose a rule with a type of Non Labor.
Apply %	(One Apply % field applies to labor rules, the other to non-labor rules.) Enter a percentage (zero or any positive number). The percentage is a markup or discount to the transfer price amount calculated by the rule. Numbers less than 100 indicate a discount, and numbers greater than 100 indicate a markup. For example, to give a 20% discount on a bill rate, enter 80.
[] (Descriptive flexfield)	Enter the information specified by your system administrator.

*You must specify at least one transfer price rule (labor, non-labor, or both) for each schedule line.

Table 12 – 10 Transfer Price Schedule window (Page 1 of 1)

6. Save your work.

Defining Cross Charge Implementation Options

The screenshot shows the 'Implementation Options (Vision Services: USD)' window with the 'Cross Charge' tab selected. The window has a title bar with standard OS controls and a menu bar with the following tabs: System, Currency, Project Setup, Expnd/Costing, Billing, Tax Defaults, Cross Charge, and Internal Billing. The main content area is divided into three sections:

- Transfer Price Currency Conversion**: Contains two fields. 'Exchange Rate Date Type' is a dropdown menu currently showing 'Expenditure Item...'. 'Exchange Rate Type' is a text field currently showing 'Corporate'.
- Cross Charges within Operating Unit**: Contains a 'Processing Method' section with two radio buttons: 'None' and 'Borrowed and Lent'. The 'Borrowed and Lent' option is selected.
- Allow Cross Charges to all Operating Units within Legal Entity**: This section is preceded by a checked checkbox. It contains a 'Default Processing Method' section with two radio buttons: 'None (G)' and 'Borrowed and Lent'. The 'Borrowed and Lent' option is selected.

You must define cross charge implementation options for every operating unit that uses the cross charge feature of Oracle Projects.

► To define cross charge implementation options:

1. Navigate to the Implementation Options window and select the Cross Charge tab.
2. Enter the exchange rate date type and the exchange rate type that Oracle Projects uses to convert the transfer price amount to the functional currency of the provider operating unit:
 - For Exchange Rate Date Type, choose Expenditure Item Date or PA Date.
 - For Exchange Rate Type, specify the rate type that will be used as the default for transfer price conversions.

3. Select a method for processing cross charges within an operating unit. If you select:
 - None, Oracle Projects will not process intra–operating unit transactions for cross charge.
 - Borrowed and Lent, the system creates borrowed and lent accounting entries only; Oracle Projects does not generate invoices for transactions processed by borrowed and lent accounting.
4. To allow cross charges to all operating units within a legal entity, select the check box, and then choose a default processing method for these type of transactions. If you select:
 - None, Oracle Projects does not process inter–operating unit transactions for cross charge.
 - Borrowed and Lent, Oracle Projects creates borrowed and lent accounting entries only.
5. Save your work.

Defining Internal Billing Implementation Options

The screenshot shows the 'Implementation Options (Vision Services: USD)' window with the 'Internal Billing' tab selected. The window has a title bar with standard OS controls and a menu bar with options: System, Currency, Project Setup, Expnd/Costing, Billing, Tax Defaults, Cross Charge, and Internal Billing. The main content area is divided into two sections: 'Provider for Internal Billing' and 'Receiver for Internal Billing', both with checked checkboxes. The 'Provider for Internal Billing' section contains fields for 'Supplier Name' (Vision) and 'Number' (1015). Below these are two groups: 'Invoice Numbering' with 'Method' (radio buttons for Manual and Automatic, with Manual selected) and 'Type' (radio buttons for Alphanumeric and Numeric, with Alphanumeric selected). Below the numbering groups is a dropdown for 'Invoice Batch Source' set to 'PA Internal Invoices'. The 'Reclassify Costs for Cross Charged Transactions' section has two rows of radio buttons: 'Cost Accrual Projects' (None, Raw, Burdened, with None selected) and 'Non Cost Accrual Projects' (None, Raw, Burdened, with None selected). The 'Receiver for Internal Billing' section contains fields for 'Customer Name' (IntraOrg3 Company) and 'Number' (2487).

Implementation Options (Vision Services: USD)

System Currency Project Setup Expnd/Costing Billing Tax Defaults Cross Charge Internal Billing

☒ **Provider for Internal Billing**

Supplier Name **Vision** Number **1015**

Invoice Numbering

Method

☒ Manual ☐ Automatic

Type

☒ Alphanumeric ☐ Numeric

Invoice Batch Source **PA Internal Invoices**

Reclassify Costs for Cross Charged Transactions

Cost Accrual Projects ☒ None ☐ Raw ☐ Burdened

Non Cost Accrual Projects ☒ None ☐ Raw ☐ Burdened

☒ **Receiver for Internal Billing**

Customer Name **IntraOrg3 Company** Number **2487**

For each operating unit that uses the internal billing feature of Oracle Projects you must set up internal billing implementation options as either a provider or receiver organization, or both.

► To define internal billing implementation options:

1. Navigate to the Implementation Options window and select the Internal Billing tab.
2. If the current operating unit is a provider organization for internal billing, select Provider for Internal Billing. If you do not select this check box, skip to Step 7.
3. For Supplier Name and Number, enter the name and number of the supplier associated with the current operating unit.
4. Select an invoice numbering method:

To...	Do This
Specify invoice numbers	Select Manual, and then select Alphanumeric or Numeric Numbering.
Use invoice numbers generated by the system	Select Automatic, and then specify a starting number to use for internal invoices.

5. For Invoice Batch Source, select PA Internal Invoices
6. Indicate how you want to reclassify cross charged costs for cost accrual and non–cost accrual projects. Select None if you do not want to reclassify cross charges for either category.
7. Select Receiver for Internal Billing if the current operating unit is a receiver organization for internal billing. If you not check this box, skip to Step 9.

Use the Cost Accrual Identification extension to identify the project as a cost accrual project. See: Cost Accrual Identification Extension: page 19 – 165.
8. For Customer Name and Number, enter the name and number of the customer associated with this operating unit.
9. Save your work.

Defining Provider and Receiver Controls

This section describes how to define provider and receiver controls to:

- Control the ability to allow cross charges to other operating units within a legal entity by individual receiver operating unit
- Override the default processing method for cross charges to receiver operating units within a legal entity
- Allow cross charges to operating units outside the legal entity
- Use internal billing

Defining Intercompany Receiver Controls: page 12 – 58

Defining Provider Controls

Provider/Receiver Controls (Vision Services: USD)

Operating Unit: **Vision Services** Legal Entity: **Vision Services**

Provider Controls Receiver Controls

☒ Allow Cross Charge to all Operating Units within Legal Entity

Default Processing Method: ☐ None ☒ Borrowed and Lent

Receiver

Operating Unit	Legal Entity	Allow Cross Charge	Processing Method	Intercompany Billing Project	Invoice Grouping
Vision Project Mfg	Vision Project Mfg	☒	Intercompany...	IC Billing - VisPM	By Receiv...
		☐			
		☐			
		☐			
		☐			
		☐			
		☐			

► To define provider controls:

1. Navigate to the Provider/Receiver Controls window.

You can change the name of the operating unit and legal entity that appears in the window.

2. Select the Provider Controls tab.

The *Allow Cross Charge To All Operating Units within Legal Entity* and *Default Processing Method* options display the implementation options you selected. You can change these options only from the Implementation Options window.

3. Enter the name of the operating unit that can receive cross charges from the current operating unit.

The operating unit can belong to a different legal entity than the current legal entity displayed at the top of the window. Once you

enter an operating unit, Oracle Projects displays the name of the corresponding legal entity.

4. Select *Allow Cross Charge* to allow cross charges to this operating unit.

This value overrides the *Allow Cross Charges To All Operating Units Within Legal Entity* option. Changes to the *Allow Cross Charge* check box affect future cross charges to this receiver operating unit.

5. For Processing Method, select the cross charge processing method that you want to use for transactions charged to this receiver operating unit.

You can choose Intercompany Billing only if you have identified the operating unit as a receiver for internal billing. If you change the processing method to or from Intercompany Billing, you must mark any unprocessed transactions for cross charge reprocessing (do so in the Expenditure Items window). If you do not mark these items, they may fail processing for intercompany billing. You can choose Borrowed and Lent only if the receiver operating unit and provider operating unit are in the same legal entity.

6. (*Intercompany billing only*) Enter the name of the intercompany billing project created to generate intercompany Receivables invoices for this provider operating unit.

Oracle Projects validates that the customer associated with the receiver operating unit is the same as the customer for the intercompany billing project.

You cannot change the intercompany billing project once you have created any billing transactions by running the Generate Intercompany Invoices process.

7. (*Intercompany billing only*) Enter an invoice grouping method.
 - **Receiver Project.** Oracle Projects generates a separate invoice for each project that receives cross charges from the current operating unit.
 - **Receiver Operating Unit.** Oracle Projects generates a single invoice for all projects in the receiver operating unit that receive cross charges from the current operating unit.
8. For [] (descriptive flexfield), enter the information specified by your system administrator.
9. Save your work.

Defining Intercompany Receiver Controls

Provider/Receiver Controls (Vision Services: USD)

Operating Unit: **Vision Services** Legal Entity: **Vision Services**

Provider Controls Receiver Controls

Provider

Operating Unit	Legal Entity	Supplier	Supplier Site	Expenditure Type	Expenditure Org
Vision Services	Vision Services	Vision	LOCAL-SF	Consulting	Consulting
Vision Project Mfg	Vision Project Mfg	AT	SERVICES SITE	Consulting	Vision Project M
Vision Project Eng	Vision Project Mfg				
Vision R & D	Vision Services	INTERNAL IC BILL	SERVICES	Consulting	Consulting

► To define receiver controls:

1. Navigate to the Provider/Receiver Controls window.

You can change the name of the operating unit and legal entity that appears in the window.

2. Select the Receiver Controls tab and then enter the Provider lines.

For this field...	Do This
Operating Unit	Enter the name of the operating unit that provides internal invoices to the current operating unit. You can choose among the operating units identified as providers for internal billing (in the Internal Billing tab of the Implementation Options window).
Legal Entity Supplier	After you enter an operating unit, Oracle Projects displays the name of the corresponding legal entity and supplier.

For this field...	Do This
Supplier Site	Enter a supplier site to use for this operating unit.
Expenditure Type	Enter an expenditure type. Oracle Projects uses the expenditure type to create distribution lines for internal Payables invoices. You can choose only those expenditure types with an expenditure type class of Supplier Invoices.
Expenditure Org	Enter an organization to use as the expenditure organization for all distribution lines of the internal Payables invoices from this provider operating unit.

Table 12 – 11 Provider/Receiver Controls window, Intercompany Receiver Setup (Page 2 of 2)

3. Save your work.

Defining Cross Charge Setup

Project Cross Charge Setup (Vision Services: USD) - Research & Development

Cross-Charge

☒ Allow Charges from other Operating Units

Process Cross Charge For

☐ Labor

☐ Non-Labor

Transfer Price Schedule

Fixed Date

Intercompany Tax Receiving Task

Project Currency Attributes

Default Project Rate Type

Default Project Rate Date

At the project and task levels, you can define how to process cross charges for labor and non-labor transactions, and select transfer price schedules to use for each type of transaction.

Capital projects cannot process cross charged transactions using intercompany billing.

► **To define cross charge setup information at the project or task level:**

1. Depending on the level at which you want to define cross charge processing, navigate to a window:

To define cross charging at this level...	Do this:
Project	Navigate to Project Cross Charge Setup and go to Step 2.
Task	Navigate to Task Cross Charge Set up and skip to Step 3.

2. *(Project level only)* Select *Allow charges from other operating units* if you want the project or task to accept transactions cross charged from other operating units.
3. Specify if you want to process cross charge for labor and non-labor transactions on this project, and the transfer price schedule for each:

- *(Optional)* Select Labor, Non-Labor, or both. Depending on your selection, you must specify Transfer Price Schedule information for each selection.

If you do not select either labor or non-labor, cross charged transactions for that project will not be subject to cross charge processing.

- For Transfer Price Schedule, enter the name of the transfer price schedule (in the labor or non-labor area, depending on your selection) that you want to use to determine the transfer price amount for transactions.
- For Fixed Date, specify the date to use to calculate the transfer price amount. This date is used only if the transfer price rule uses a calculation method based on a bill rate or burden schedule. If you do not enter a date, Oracle Projects uses the expenditure item date.

You can assign schedules at any level of the WBS for defaulting to new lower level tasks. Schedules assigned to the lowest tasks are used to process cross charge transactions for that task.

Changes to schedule assignments affect only future transactions. To change a previously processed transactions, adjust the transaction manually from the Expenditure Items window.

4. *(Project level only)* For Intercompany Tax Receiving Task, enter the name of the task that you want to use to collect non-recoverable intercompany tax amounts as project costs. You cannot update this field at the task level.

You can distribute these amounts among other tasks on the project by using the Allocations feature. See: Overview of Allocations: page 6 – 2.

5. Save your work.

Processing Flow for Cross Charge and Inter–Project Billing

This section covers the following topics:

Overview of Processing Flow for Cross Charge: page 12 – 62

Creating Cross Charge Transactions: page 12 – 64

Processing Borrowed and Lent Accounting: page 12 – 67

Processing Intercompany Billing: page 12 – 70

Generating Intercompany Invoices: page 12 – 70

Approving and Releasing Intercompany Invoices: page 12 – 73

Interfacing Intercompany Invoices to Oracle Receivables: page 12 – 74

Interfacing Intercompany Invoices to Oracle Payables: page 12 – 75

Interfacing Tax Lines from Payables to Oracle Projects: page 12 – 77

Interfacing Cross Charge Distributions to General Ledger: page 12 – 79

Adjusting Cross Charge Transactions: page 12 – 81

Overview of Processing Flow for Inter–Project Billing: page 12 – 88

Adjusting Inter–Project Billing Invoices: page 12 – 91

See Also

Introduction to Cross Charge and Inter–Project Support: page 12 – 3

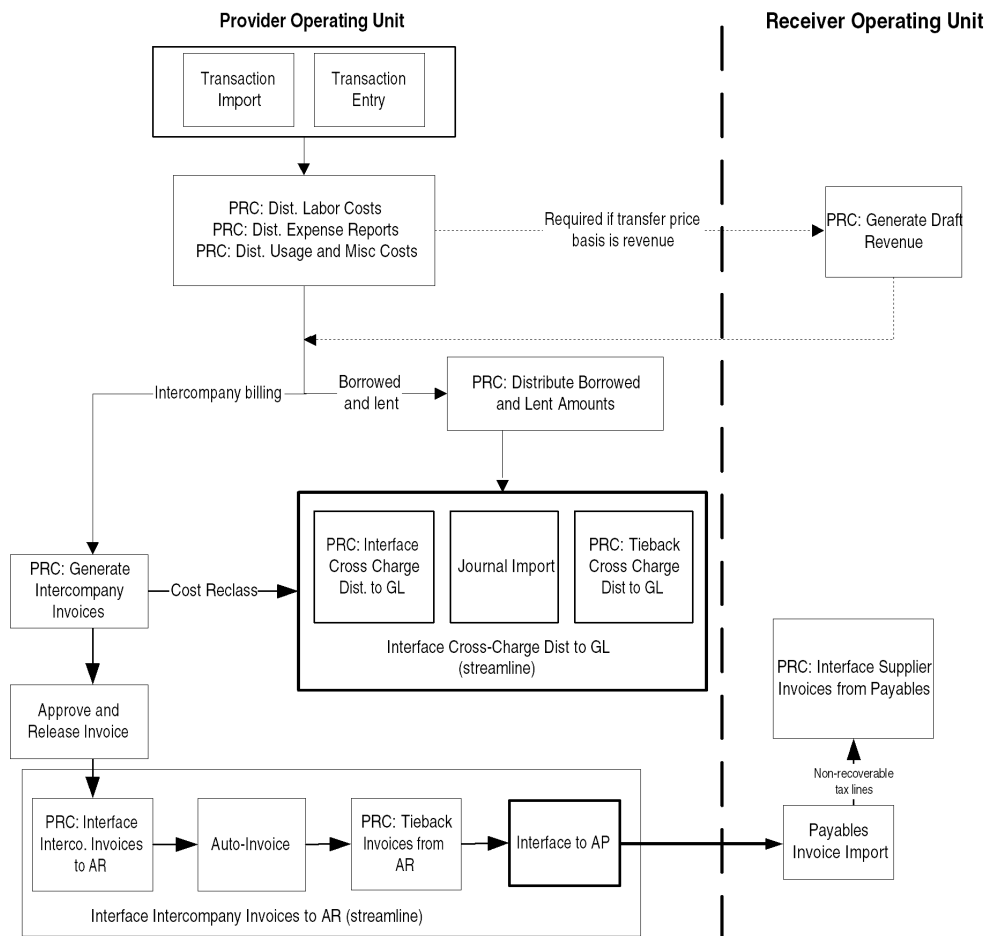
Setting Up Cross Charge and Inter–Project Billing: page 12 – 38

Procedures for Cross Charge and Inter–Project Billing: page 12 – 47

Overview of Processing Flow for Cross Charge

Figure 12 – 9 illustrates the processing flows for cross charge transactions that require either borrowed and lent or intercompany billing processing.

Figure 12 – 9 Overview of Processing Flow



Creating Cross Charge Transactions

To create cross charge transactions, you enter expenditures, distribute costs, and then generate revenue.

Enter Expenditures

Enter or import the cross charge transactions as you would for any project transactions. Oracle Projects enforces cross charge controls and transaction controls to ensure that only valid transactions are charged to a project or task.

Distributing Costs

In addition to determining the raw and burden cost amounts and the accounting information for project transactions, the cost distribution processes also determine the following information for cross charge transactions:

- Provider and receiver operating units and organizations
- Cross-charge type, which indicates whether a transaction is an intra-operating unit (IO), inter-operating unit (IU), or intercompany (IC) cross charged transaction or not a cross charged transaction (NO)
- Cross-charge processing method, which indicates whether a transaction is subject to cross charge processing and which processing method to use

Determining the cross charge type

Oracle Projects determines a transaction's cross charge type as follows:

- Provider organization defaults to the expenditure or non-labor resource organization
- Receiver organization defaults to the task organization
- Call the Provider and Receiver Organizations Override extension to determine whether to override these values
- Cross charge type is based on the values above and the logic indicated in the following table:

Cross charge type	Conditions
Intra-operating unit (IO)	Provider operating unit equals receiver operating unit Provider organization does not equal receiver organization
Inter-operating unit (IU)	Provider operating unit does not equal receiver operating unit Provider legal entity equals receiver legal entity
Intercompany (IC)	Provider legal entity does not equal receiver legal entity

Table 12 – 12

Determining the cross charge processing method

A transaction can have one of the following cross charge processing methods:

- Borrowed and lent accounting
- Intercompany billing
- No cross charge processing

Oracle Projects determines the cross charge processing method for a transaction, based on how you have implemented the following items:

- **Transaction source options.** You can enable an option to skip cross charge processing for all transactions from the specified source.
- **Project attributes for processing labor and non-labor cross charge transactions.** If you do not enable cross charge processing for cross charge labor transactions at the project level, no labor transactions for that project will be subject to cross charge processing. The same applies to non-labor transactions.
- **Cross-charge options for provider operating unit**
 - Intra-operating unit transactions. Implementation options determine processing method.
 - Inter-operating unit transactions. If you have enabled users to charge to all operating units within the legal entity, the implementation options determine the default processing method.
- **Provider and receiver controls**
- **Cross Charge Processing Method Override extension**

Generating Revenue

If you use revenue as your transfer price basis, you must run PRC: Generate Revenue to determine your cross charged transactions' revenue amount before running the cross charge processes.

You can use revenue as a transfer price basis only for contract projects (Oracle Projects generates revenue only for contract projects).

Processing Borrowed and Lent Accounting

Running the standard cost distribution processes in the provider operating unit identifies which transactions require borrowed and lent processing. Oracle Projects provides a separate process, PRC: Distribute Borrowed and Lent Amounts, to compute the transfer price of these transactions and determine the GL accounts for borrowed and lent accounting entries.

The provider operating unit runs this process to perform the following steps on cross charge transactions identified for borrowed and lent processing:

1. Calculate the Transfer Price Amount: page 12 – 67.
2. Run AutoAccounting: page 12 – 69.
3. Create Cross Charge Distribution Lines: page 12 – 69.

Calculate the Transfer Price Amount

Distribute Borrowed and Lent Amounts calculates the transfer price amount of a given cross charge transaction, as follows:

If the process cannot determine a transfer price for the cross charge transaction, Oracle Projects flags the transaction with an error and proceeds to the next item. The transfer price is stored in the transaction and functional currencies.

1. Call the Transfer Price Determination extension.

Oracle Projects calls the Transfer Price Determination extension at the beginning of the process in case you want to bypass the standard transfer price calculation for certain borrowed and lent transactions. If you implement this extension, Oracle Projects calculates the transfer price amount based on the extension logic and generates borrowed and lent accounting entries based on this amount. See: Transfer Price Determination Extension: page 19 – 157.

2. Identify the applicable transfer price schedule.

Oracle Projects identifies the labor or non-labor transfer price schedule specified for the task to which the transaction is charged, depending on the expenditure type of the cross charged transaction.

3. Identify the applicable transfer price schedule line.

If the transfer price schedule identified by the Distribute Borrowed and Lent Amounts process contains more than one line, Oracle Projects must determine which line to apply. Oracle Projects first selects all schedule lines whose effective dates contain the Process Through Date parameter you enter for the process. Oracle Projects then selects the appropriate line based on the provider and receiver organization, operating unit, legal entity, or business group. See: Transfer Price Rules and Schedules: page 12 – 19.

4. Calculate the transfer price amount.

The process then calculates the transfer price amount by applying the transfer price rule and any additional percentage you have specified in the schedule line.

The actual transfer price calculation is carried out like this:

- Determine the transfer price basis (raw cost, burdened cost, or revenue) identified in the transfer price rule.

If you use revenue or cost amounts as your transfer price basis, Oracle Projects verifies that you have performed the appropriate revenue generation or cost distribution processes. If you have not run the prerequisite processes, Oracle Projects marks the transaction with an error.

- Apply a burden schedule or standard bill rate schedule to the basis, as indicated in the transfer price rule. If the process identifies a rate in the specified bill rate schedule, it applies the rate to the quantity of the transaction.
- Apply any additional percentage specified in the rule.
- Apply any additional percentage specified for labor or non-labor transactions in the schedule line.

5. Call the Transfer Price Override extension.

You can use this extension to override the transfer price amount calculated by the Distribute Borrowed and Lent Amounts process. See: Transfer Price Override Extension: page 19 – 160.

6. Perform required currency conversions.

If the functional currency is different from the transfer price base currency, the process performs the required currency conversion to generate functional currency amounts using the currency conversion attributes defined in the provider operating unit's cross charge implementation options. You can override these attributes using the Transfer Price Currency Conversion Override extension.

7. Call the Transfer Price Currency Conversion Override extension.

You can use this extension to override the default transfer price currency conversion attributes defined in the cross charge implementation options. See: Transfer Price Currency Conversion Override Extension: page 19 – 163

Run AutoAccounting

After the process calculates the transfer price amounts for each selected borrowed and lent transaction, it runs AutoAccounting to determine the account code for each distribution line that it will create. Oracle Projects provides the functions *Borrowed Account* and *Lent Account* for borrowed and lent transactions.

Create Cross Charge Distribution Lines

After the Distribute Borrowed and Lent Amounts process runs AutoAccounting, it creates cross charge distribution lines.

The PA date for the distribution lines is determined based on the ending date of the earliest open PA period on or after the expenditure item date.

You can use the View Accounting window to view cross charge distributions for a specific item. (To do so, query an invoice transaction in the Expenditure Items window and choose View Accounting from the Tools menu. See: Viewing Accounting Lines: page 4 – 49.) The following transaction attributes support cross charge distributions:

- Provider organization and operating unit
- Receiver organization and operating unit
- Cross charge processing method and type

Processing Intercompany Billing

This section covers the following topics:

- Generating Intercompany Invoices: page 12 – 70
- Approving and Releasing Intercompany invoices: page 12 – 73
- Interfacing Intercompany Invoices to Receivables: page 12 – 74
- Interfacing Intercompany Invoices to Oracle Payables: page 12 – 75
- Interfacing Tax lines from Payables to Oracle Projects: page 12 – 77

Generating Intercompany Invoices

Running the standard cost distribution processes in the provider operating unit identifies which transactions require intercompany billing processing. Oracle Projects provides separate processes to compute the transfer price of the intercompany billing transactions and generate draft intercompany invoices and (optionally) provider cost reclassification entries.

To use the intercompany billing processing method, you must perform several setup steps, including creating an intercompany billing project.

The Generate Intercompany Invoice processes (The PRC: Generate Intercompany Invoices for a Single Project and PRC: Generate Intercompany Invoices for a Range of Projects) carry out the following steps:

1. Create Invoice Details: page 12 – 71.
2. Create Invoices and Invoice Lines: page 12 – 71.
3. *(Optional)* Generate Provider Cost Reclassification Entries: page 12 – 73.

See: Generate Intercompany Invoices: page 11 – 36.

Create Invoice Details

Calculate the Transfer Price Amount

The Generate Intercompany Invoices processes calculate the transfer price amount using the same steps as described for the Distribute Borrowed and Lent Amounts process.

Run AutoAccounting

After the process calculates the transfer price amounts for each selected intercompany billing transaction, it runs AutoAccounting to determine the intercompany revenue account for each cross charged transaction, using the *Intercompany Revenue* function.

Determine Tax Codes

The Oracle Receivables tax code is defaulted for each transaction based on the tax defaulting hierarchy defined in your implementation options. The process also determines the intercompany tax receiving task for the transaction.

Create Intercompany Invoice Details

The process then creates intercompany invoice details for each transaction with the transfer price amount, intercompany revenue account, and tax code.

Create Invoices and Invoice Lines

The Generate Intercompany Invoice process groups the invoice details of cross charged transactions into invoices and invoice lines.

The Generate Intercompany Invoice process:

- Verifies intercompany billing projects
- Creates invoice
- Creates invoice lines
- Generates provider cost reclassification entries

Verify intercompany billing projects

The process verifies that each specified intercompany billing project meets the following criteria before generating an invoice and invoice lines:

- (*Mass generation only*) Billing cycle criteria have been met.
- Invoice details exist that have not yet been included in an invoice.
- The project customer, and customer bill and ship to sites must all be active. Otherwise, Oracle Projects creates an invoice marked with generation error.
- The project customer must not be on credit hold. Otherwise, Oracle Projects creates an invoice marked with generation error.
- The status of the intercompany billing project must not be Closed.

Create invoice

Depending on how the provider operating unit has implemented the provider controls, this step creates:

- A consolidated intercompany invoice for all cross charged projects of a receiver operating unit. In other words, one draft invoice for each intercompany billing project.
- One intercompany invoice for each cross charged project. In other words, multiple invoices for an intercompany billing project when multiple cross charged projects exist for a receiver operating unit. Oracle Projects orders such invoices by generating status (invoices with errors appear last) and the project number of the cross charged project.

The process uses the date of the invoice as the GL date.

Create invoice lines

The process uses the following criteria to group invoice details to generate invoice lines:

- Cross-charged project
- Tax attributes
- Intercompany revenue account
- Invoice format components

Invoice lines are then created for the invoices based on the grouped invoice details.

If an invoice line amount is zero due to offsetting invoice details, the process does not create the invoice line and includes the invoice details for that line in an exception report.

(Optional) Generate Provider Cost Reclassification Entries

Depending on how the provider operating unit has set up the internal billing implementation options, this process optionally creates the cost reclassification accounting entries using the following AutoAccounting functions:

- Provider Cost Reclass Dr
- Provider Cost Reclass Cr

You can review the entries from the View Accounting window. See *Create Cross Charge Distribution Lines*: page 12 – 69 for more information on using the View Accounting window.

You can interface these entries to Oracle General Ledger using the *Interface Cross Charge Distributions to GL* process only after you have interfaced the related intercompany invoices to Oracle Receivables.

Approving and Releasing Intercompany Invoices

The approval and release process for invoices has been modified to support intercompany invoices, as described in the following paragraphs (the approval and release of customer invoices remain unchanged).

Approving and releasing intercompany invoices consists of the following actions:

1. Review intercompany invoices in the Invoice Review window.
From this window, you can drill down from a draft intercompany invoice to draft intercompany invoice lines to the underlying cross charged transactions.
2. Approve intercompany invoices as you would a customer invoice.
3. Release intercompany invoices as you would a customer invoice.

Oracle Projects generates the invoice number for intercompany invoices and customer invoices from different sequences

because different batch sources are used to interface these invoices to Oracle Receivables.

4. (Optional) Delete unapproved intercompany invoices as you would a customer invoice.

Interfacing Intercompany Invoices to Receivables

The PRC: Interface Intercompany Invoices to Receivables process interfaces released intercompany invoices to Oracle Receivables. You can run this process separately or as a streamline process (choose the XIC: Interface Intercompany Invoices to AR parameter). The streamline process performs the following processes:

1. Interface Intercompany Invoices to Receivables: page 12 – 74.
2. AutoInvoice: page 12 – 75.
3. Tieback Invoices from Receivables: page 12 – 75.

Interface Intercompany Invoices to Receivables

This process interfaces intercompany invoices with active Bill To and Ship To address to the Oracle Receivables interface table. It identifies the following debit accounts for intercompany invoices:

- Intercompany Receivables
- Intercompany Rounding

Oracle Projects provides the AutoAccounting function *Intercompany Invoice Accounts* to determine the receivables and rounding accounts. The intercompany revenue account is already available on the invoice lines for intercompany invoices.

Once in Oracle Receivables, intercompany invoices are identified with a batch source of PA Internal Invoices and a transaction type of either Internal Invoice or Internal Credit Memo. You can query receivables information by project-related query data. Project information in Oracle Receivables is located in the Transaction Flexfield and Reference field. The following fields in Oracle Receivables hold project-related data for intercompany invoices (reference field of the PA Internal Invoices batch source):

Oracle Receivables Field Name	Oracle Projects Data
Transaction Flexfield Value 1	Project number of the intercompany billing project
Transaction Flexfield Value 2	Draft invoice number from Oracle Projects
Transaction Flexfield Value 3	Receiving operating unit
Transaction Flexfield Value 4	Project number of the cross charged project
Transaction Flexfield Value 5	Project manager
Transaction Flexfield Value 6	Line number of the invoice line
Transaction Flexfield Value 7	Invoice type of the invoice

Table 12 – 13

Line grouping rule and line ordering rule in Oracle Receivables for intercompany invoices are as follows:

- Line grouping. Uses Transaction Flexfield Values 1 through 4.
- Line ordering. Uses Transaction Flexfield Values 5 through 7.

Decentralized invoice collections are not enabled for intercompany invoices.

AutoInvoice

The Oracle Receivables Invoice Import process pulls invoices from the Oracle Receivables interface tables. See: *Oracle Receivables User's Guide*.

Tieback Invoices from Receivables

The Tieback Invoices from Receivables process verifies the successful interface of intercompany invoices to Oracle Receivables. Intercompany invoices successfully interfaced to Oracle Receivables are also automatically interfaced to the Oracle Payables system of the receiver operating unit. See: Tieback Invoices from Receivables: page 11 – 69.

Interfacing Intercompany Invoices to Oracle Payables

Interfacing intercompany invoices to the invoice tables in Oracle Payables consists of the following steps:

1. Interface intercompany invoices to the Payables interface table: page 12 – 76.
2. Run the Open Interface Import process in Payables: page 12 – 77.

Interface intercompany invoices to the Payables interface table

When the provider operating unit runs the Tieback Invoices from Receivables process, the intercompany invoices are automatically copied into the interface table of the receiver operating unit's Payables. Intercompany invoices interfaced to Payables are identified with the following attributes:

- **Source.** All intercompany invoices have a source of Projects Intercompany Invoices.
- **Supplier.** The supplier is identified by the provider operating unit's internal billing implementation options.
- **Supplier Site.** The supplier site is based on how the provider operating unit defines the receiver controls for the receiver operating unit.
- **Invoice Amount.** The Payables invoice amount is the amount of the related Receivables invoice, including taxes.

The interface process populates the project-related attributes for intercompany Payables invoice distributions, as indicated below:

- **Project Number.** The number of the cross charged project indicated in the invoice line.
- **Task Number.** The number of the task specified in the Intercompany Tax Receiving Task field on the cross charged project.
- **Expenditure Item Date.** The invoice date of the intercompany Receivables invoice.
- **Expenditure Type.** The expenditure type specified by the receiver operating unit in the Receiver Controls tab.
- **Expenditure Organization.** The expenditure organization specified by the receiver operating unit in the Receiver Controls tab.

In addition, the interface process matches the tax code from each invoice line of the Receivables invoice to the appropriate Oracle Payables tax code. This process indicates that the Payables invoice distributions do not include tax amounts, so that the Payables Open Interface process creates the invoice distributions for the entire invoice by grouping the tax lines based on the following attributes:

- Tax code
- Project information (project, task, expenditure item date, expenditure type, expenditure organization)

Tax group support in Oracle Payables is provided only by the Canadian or other localizations.

Run the Open Interface Import process in Payables

The receiver operating unit runs the Open Interface Import process in Payables to create intercompany Payables invoices. Payables Open Interface Import performs the following steps:

- Convert amounts from the transaction currency to the functional currency of the receiver operating unit based on the default conversion attributes defined in the receiver operating unit's Payables system options. (The Receivables invoice amounts are copied as the transaction currency amounts on the Payables invoice.)

You can customize the Payables Open Interface workflow process to override the default currency conversion attributes for the invoice and distribution amounts.

- Derive the intercompany Payables account from supplier information. You can either associate supplier types for internal suppliers with intercompany cost accounts or otherwise modify the Workflow-based account generation process to determine the appropriate intercompany cost account. Payables Invoice Import generates the following sample accounting entries:

DR	Intercompany Cost
CR	Intercompany Payables

- Generate recoverable and non-recoverable tax lines (if you have specified a percentage for recoverable tax amounts), based on the tax codes matched from Oracle Receivables.

Oracle Payables uses the rounding accounts specified in the Oracle Payables system options to account for discrepancies due to rounding tax amounts.

Interface Tax Lines from Payables to Oracle Projects

After the Payables Invoice Import process generates non-recoverable tax lines for the intercompany invoice, you must run the Interface Supplier Invoices from Payables process to interface these non-recoverable tax lines to Oracle Projects as project costs.

Tax lines interfaced from Oracle Payables are not subject to any cross charge processing and are not adjustable in Oracle Projects.

Interfacing Cross Charge Distributions to General Ledger

If you use borrowed and lent accounting or intercompany billing with cost reclassification enabled, you must interface the resulting accounting entries from Oracle Projects to Oracle General Ledger. Interfacing cross charge distributions to Oracle General Ledger consists of the following steps:

1. Run the Interface Cross Charge Distributions process to General Ledger process: page 12 – 79.
2. Run Journal Import. See: *Oracle General Ledger User's Guide*.
3. Run the Tieback Cross Charge Distributions from General Ledger process (see: Tieback Cross Charge Distributions from General Ledger: page 11 – 65), which determines whether the Journal Import process rejected any cross charge distributions.

You can run these processes individually or as part of a streamline process. To run the streamline process, choose the parameter XC: Interface Cross Charge Distributions to GL.

Run the Interface Cross Charge Distributions to General Ledger process

The provider operating unit runs the PRC: Interface Cross Charge Distributions to General Ledger process.

This process does not interface accounting entries of the intercompany invoices. Instead, the provider operating unit interfaces intercompany invoice revenue and receivables to Oracle General Ledger using the standard functionality of Oracle Receivables. The receiver operating unit posts intercompany Payables invoice distributions using the Payables Transfer to Oracle General Ledger process.

PRC: Interface Cross Charge Distributions to General Ledger performs the following actions:

- Identify cross-distributions that have not yet been interfaced to Oracle General Ledger

You cannot interface cross charge distributions for provider cost reclassification entries until you have interfaced the associated intercompany invoices to Receivables.
- Determine the GL date for all distributions eligible for interfacing based on the earliest open or future GL period ending on or after the distribution's PA date
- Generate a batch name by concatenating the credit account and GL date and store this information on each distribution

- Summarize distributions by debit account and line type
- Summarize distributions by credit account and line type
- Create journal entries in the Oracle General Ledger interface tables

Adjusting Cross Charge Transactions

This section provides an overview and a description of the processing flow for adjustments to cross charge transactions. See: Cross Charge Adjustment Overview: page 12 – 81 and Cross Charge Processing Flow for Adjustments: page 12 – 85.

Cross Charge Adjustment Overview

Due to data entry errors or changes in your organization or business rules, you may need to adjust certain attributes of cross charged transactions. Doing so causes Oracle Projects to reprocess the transactions or to skip the cross charge processes completely. You can adjust a cross charged transaction by:

1. Marking transactions for cross charge reprocessing: page 12 – 81
2. Marking transactions to skip cross charge processing: page 12 – 83
3. Changing transfer price conversion attributes: page 12 – 83
4. Making miscellaneous cross charge adjustments: page 12 – 83.
 - Changing transfer price base amounts: page 12 – 83
 - Changing the provider or receiver organization using the mass update feature: page 12 – 84
 - Recompiling burden schedules: page 12 – 84
 - Performing splits and transfers: page 12 – 84
 - Performing adjustments on the Receivables or Payables invoices: page 12 – 84

Marking transactions for cross charge reprocessing

You can mark one or more transactions for cross charge reprocessing in the Expenditure Items window. For example, if you have changed cross charge setup data and want this new information reflected in the affected transfer price amounts and accounting entries, select the Reprocess Cross Charge option in the Tools menu of the Expenditure Items window.

Marking a transaction for cross charge reprocessing:

- Resets the cross charge type to Null
- Resets the cross charge processing method to Pending
- Resets the cross charge processing status to Never Processed

- Resets the transfer price amount in all currencies to Null
- Redetermines the cross charge type and processing method

The next time you run the cross charge processes, they will process these transactions as new cross charged transactions.

You should mark affected transactions for cross charge reprocessing if you have changed any of the following information:

- **Provider or receiver organization.** Modifying the Provider and Receiver Organizations Override extension or changes in your organizational structure can result in changes to the provider or receiver organization of a cross charged transaction, which could affect the cross charge type, the processing method, or the transfer price rules.
- **Transfer price setup data.** Any change to your transfer price rules could result in a new transfer price amount determined for cross charged transactions that have already been processed.
- **Cross-charge setup data.** Any change to your cross charge or internal billing implementation options, provider and receiver controls, or cross charge project and task information can affect how Oracle Projects processes cross charged transactions.
- **Account codes.** Changes to the provider reclassification accounting options can result in changes to the provider cost reclassification accounts. Any changes to the AutoAccounting setup for cross charge functions can also affect existing cross charge accounting entries.
- **Billable flag.** For cross charged transactions processed by intercompany billing with the provider cost reclassification feature enabled, changes to the Billable flag of a transaction on a contract project can result in new provider cost reclassification accounting entries.
- **Tax codes.** The Generate Intercompany Invoice processes determine the appropriate tax code for each invoice line. If you modify the logic used to derive the tax codes and have already released invoices, you must mark the affected transactions for cross charge reprocessing. Oracle Projects automatically creates a credit memo for the original invoice and a new invoice with the new tax codes.

Marking transactions to skip cross charge processing

You can mark one or more transactions so that the cross charge processes skip the specified transactions. To do this, choose Mark For No Cross Charge Processing in the Tools menu of the Expenditure Items window.

Marking a transaction as not requiring cross charge processing resets the cross charge processing method to No Cross Charge Processing and the cross charge processing status to Never Processed.

Changing transfer price conversion attributes

You can reconvert transfer price amounts from the transaction currency if you change the transfer price exchange rate date type and exchange rate type, which govern how Oracle Projects converts the transfer price amount from the transaction currency to the functional currency. To do this, you choose the Reconvert Transfer Price option from the Tools menu in the Expenditure Items window. A change in these conversion attributes may result in a change to the transfer price amount in the functional currency.

Both provider and receiver operating units can change the transfer price conversion attributes.

Changing your transfer price currency conversion attributes:

- Replaces conversion attributes for the functional currency
- Resets existing transfer price amounts in the functional currency to Null
- Resets the cross charge processing status to Never processed

Making miscellaneous cross charge adjustments

You can perform the following adjustments to cross charged transactions. These adjustments automatically mark the transaction for cross charge reprocessing.

- **Changing transfer price base amounts.** If you recalculate raw or burdened cost or revenue amounts, the amount of the transfer price basis (and the final transfer price amount) of a cross charged transaction may also change. The respective cost distribution and revenue generation processes determine whether such recalculations affect the transfer price amount of any cross charged transactions and automatically mark the transactions for cross charge reprocessing.

The cost distribution and revenue generation processes automatically resets the cross charge processing status to Never Processed and blanks out the transaction's transfer price amount.

- **Changing the provider or receiver organization using the mass update feature.** If you use the mass update feature to change the organization that owns a project or task, Oracle Projects marks all transactions (with an expenditure date after the effective date of the organization change) for cross charge reprocessing. A different project (or receiver) organization could result in a change to the transaction's cross charge processing method.

Oracle Projects automatically marks the affected items for cross charge processing.

- **Recompiling burden schedules.** If the user changes and recompiles a burden schedule that has been used for determining the transfer price of some items, the recompile process will mark these items for cross charge reprocessing by resetting the cross charge type to Null, the cross charge processing method to Pending, and the cross charge processing status to Never Processed.
- **Performing transfers and splits.** Transferring or splitting a cross charged transaction does not affect the cross charge processing method of the existing transactions. The reversing and new transactions will undergo the cross charge processes as usual.

The Generate Intercompany Invoice processes group the invoice details for all adjusting transactions by the invoice number and line number of the original transactions for credit memo processing.

- **Performing adjustments on the Receivables or Payables invoices.** You can adjust invoice level accounting information for Receivables and Payables invoices, as described below:
 - Intercompany Receivables account (for Receivables invoices). The Interface Intercompany Invoices to Receivables process determines the intercompany receivables account for each invoice. If you change the rules used to determine this account, you must manually cancel the invoice from the Invoice Review window. Oracle Projects automatically creates a credit memo with details reversing each line in the original invoice. All items on the cancelled invoice are eligible for intercompany rebilling. Once rebilled, the Interface Intercompany Invoices to

Receivables process will determine the account for the new invoice using the modified rules.

You cannot cancel an invoice if payments have been applied against it in Oracle Receivables or if an invoice has credit memos applied against it. You can cancel an invoice only if it is released and has no payments, adjustments, or crediting invoices applied against it. Once the cancellation is completed, you cannot delete the credit memo created by the cancellation action. That is, you cannot reverse an invoice cancellation.

- Intercompany cost account (for Payables invoices). In Oracle Payables, reverse the invoice distribution with the incorrect intercompany cost account and create a new line with the correct account information.

Cross Charge Processing Flow for Adjustments

After you mark an adjustment to a cross charged transaction for reprocessing, Oracle Projects processes these adjustments similarly to the original transactions. The processing flow for adjustments is described in further detail on the following pages.

The cross charge processes perform the following common steps on adjustments marked for cross charge reprocessing, regardless of whether the transactions require borrowed and lent or intercompany billing processing:

- Recalculate the transfer price if no transfer price amount exists in the transaction currency
- Reconvert the transfer price amount from the transaction currency to the functional currency if an amount exists in the transaction currency but not the functional currency

Processing Borrowed and Lent Adjustments

After the PRC: Distribute Borrowed and Lent Amounts process completes the common processing steps for cross charge adjustments, it performs the steps for borrowed and lent adjustments, as described below.

- **Regenerate accounting entries.** If any of the accounts have changed from entries already interfaced to Oracle General Ledger, the Distribute Borrowed and Lent Amounts process reverses the original cross charge distributions and creates new ones. The process also determines the PA dates for the reversing

and new distributions. If the original accounting entries have not yet been transferred to Oracle General Ledger and the accounts or amounts have changed, the process replaces them with the new entries.

- **Reverse existing distributions if processing method has changed.** If the cross charge processing method for the transaction changes from borrowed and lent to intercompany billing or no cross charge processing, the process reverses existing entries that have been interfaced to Oracle General Ledger.

Processing Intercompany Billing Adjustments

After the Generate Intercompany Invoice process completes the common processing steps for cross charge adjustments, it performs the following steps:

1. Redetermine the intercompany revenue account and tax code.

The revenue account and tax code is redetermined for the adjusted transactions. If intercompany invoice details already exist for the transaction, the Generate Intercompany Invoice process compares the recalculated transfer price amount to the existing transfer price amount. If they are different, you must reverse the existing invoice detail line and create a new one. Similarly, if the process detects a difference in the new intercompany revenue account or tax code and the existing values, reversing and new invoice details are created.

2. Create a credit memo.

The Generate Intercompany Invoice process creates a credit memo, in which reversing invoice details are grouped together by the invoice number and invoice line number on which the original invoice details are billed.

3. Create new invoices.

New invoice details reflecting changed values for the transfer price, revenue account, and tax code are grouped into new invoices.

4. *(Optional)* Regenerate provider cost reclassification accounting entries.

If any of the accounts have changed from entries already interfaced to Oracle General Ledger, the Generate Intercompany Invoice process reverses the original distributions and creates new ones. The process also determines the PA date for both the reversing and

new distributions. If the original accounting entries have not yet been transferred to Oracle General Ledger and the accounts or amounts have changed, the process replaces them with the new entries.

Overview of Processing Flow for Inter–Project Billing

The processing flow for inter–project billing is the same as that for any contract project, except that once you interface draft inter–project billing invoices to Oracle Receivables, the tieback process copies them into the Payables system of the receiver operating unit. The inter–project billing processing flow consists of the following steps:

1. Generate a draft inter–project invoice.

Once you enter transactions and distribute costs on your provider project, you run the Generate Draft Invoice process as you would for any contract project. See: *Generate Draft Invoices*: page 11 – 30.

2. Approve and release the draft inter–project invoice.

Review, approve, and release the draft inter–project invoice using the standard functionality of Oracle Project Billing.

3. Interface the draft inter–project invoice to Oracle Receivables: page 12 – 88.
4. Interface the draft inter–project invoice to Oracle Payables: page 12 – 89.
5. Run Open Interface Import in Payables: page 12 – 90.
6. Interface the draft inter–project invoice to Oracle Projects: page 12 – 90.

Interface the draft inter–project invoice to Oracle Receivables

You submit a streamline process (choose the XI: Interface Draft Invoice to AR parameter) to execute the processes Interface Invoices to Receivables, AutoInvoice, and Tieback Invoices from Receivables.

Inter–project invoices are interfaced to Oracle Receivables with an invoice batch source of PA Internal Invoices. Inter–project invoices and intercompany invoices share the same batch source, PA Internal Invoice. (See: *Interface Intercompany Invoices to Receivables*: page 12 – 74.) The streamline process executes AutoInvoice twice, once for inter–project invoices and once for customer invoices. The tieback process automatically interfaces the inter–project invoices to the receiver operating unit’s payables.

Alternatively, you can execute each of these processes separately. To generate invoices in Oracle Receivables for both inter–project invoices and customer invoices, you must run AutoInvoice twice, identifying the appropriate batch source each time.

Interface the draft inter-project invoice to Oracle Payables

When the provider operating unit runs the Tieback Invoices from Receivables process, the successfully interfaced inter-project invoices are automatically interfaced to the interface table of the receiver operating unit's Oracle Payables. Inter-project invoices interfaced to Oracle Payables are identified with the following attributes:

- **Source.** All inter-project invoices have a source of Inter-Project Invoices.
- **Supplier.** The supplier is identified by the provider operating unit's internal billing implementation options.
- **Supplier Site.** The supplier site is identified by the provider operating unit's internal receiver controls.
- **Invoice Amount.** The Payables invoice amount defaults to the amount of the related Receivables invoice, including taxes.

The interface process populates the following project-related attributes for inter-project Payables invoice distributions as indicated below:

- **Project Number.** The number of the receiver project is derived from the receiver task number linked to the provider project customer.
- **Task Number.** The number of the receiver task linked to the internal project customer.
- **Expenditure Item Date.** The invoice date of the inter-project Receivables invoice.
- **Expenditure Type.** The expenditure type specified by the receiver operating unit in the Internal Receiver Controls tab.
- **Expenditure Organization.** The expenditure organization specified by the receiver operating unit in the Internal Receiver Controls tab.
- **Tax code**
- **Project information** (project, task, expenditure item date, expenditure type, expenditure organization)

Tax group support in Oracle Payables is provided only by the Canadian or other localizations.

Run Open Interface Import in Payables

The receiver operating unit runs the Payables Open Interface Import process to create inter–project Payables invoices from the records in the interface table. Payables Invoice Import does the following:

- Converts amounts from the transaction currency to the functional currency of the receiver operating unit based on the default conversion attributes defined in the receiver operating unit's Payables system options. (The Receivables invoice amounts are copied as the transaction currency amounts on the Payables invoice.)

You can customize the Payables Open Interface Workflow process to override the default currency conversion attributes for the invoice and distribution amounts.

- Derives the internal Payables account from supplier information. You can either associate supplier types for internal suppliers with internal cost accounts or otherwise modify the Workflow–based account generation process to determine the appropriate intercompany cost account.
- Generates recoverable and non–recoverable tax lines (if you have specified a percentage for recoverable tax amounts) based on the tax codes interfaced from Oracle Receivables.

Oracle Payables uses the rounding accounts specified in the Oracle Payables system options to account for discrepancies due to rounding tax amounts.

Interface the draft inter–project invoice to Oracle Projects

You must interface the entire inter–project Payables invoice (and related tax lines) created by the Payables Invoice Import process interfaced to receiver operating unit's Oracle Projects system. To do this, run the Interface Supplier Invoices from Payables, which identifies inter–project invoices as those invoices with an invoice source of Inter–Project Invoice.

Adjusting Inter–Project Billing Invoices

All adjustments made in the provider project are subject to the standard billing processes and can result in the creation of a credit memo. You must interface such credit memos to Oracle Receivables, and the tieback process interfaces them to the receiver operating unit's Oracle Payables system as negative invoices.

The inter–project billing process creates transactions on the receiver project and tasks, which you can adjust in Oracle Projects as you would any other transaction. Performing all such adjustments in Oracle Projects ensures that the invoice amount in Oracle Payables remains the same, since you can interface only net zero invoice adjustment to Oracle Payables.

Do not adjust inter–project invoices manually in Oracle Payables. Make adjustments in Oracle Projects (on either the provider or the receiver project) and then interface the adjustments to Oracle Receivables or Oracle Payables. Doing so ensures that the systems remain synchronized.

CHAPTER

13

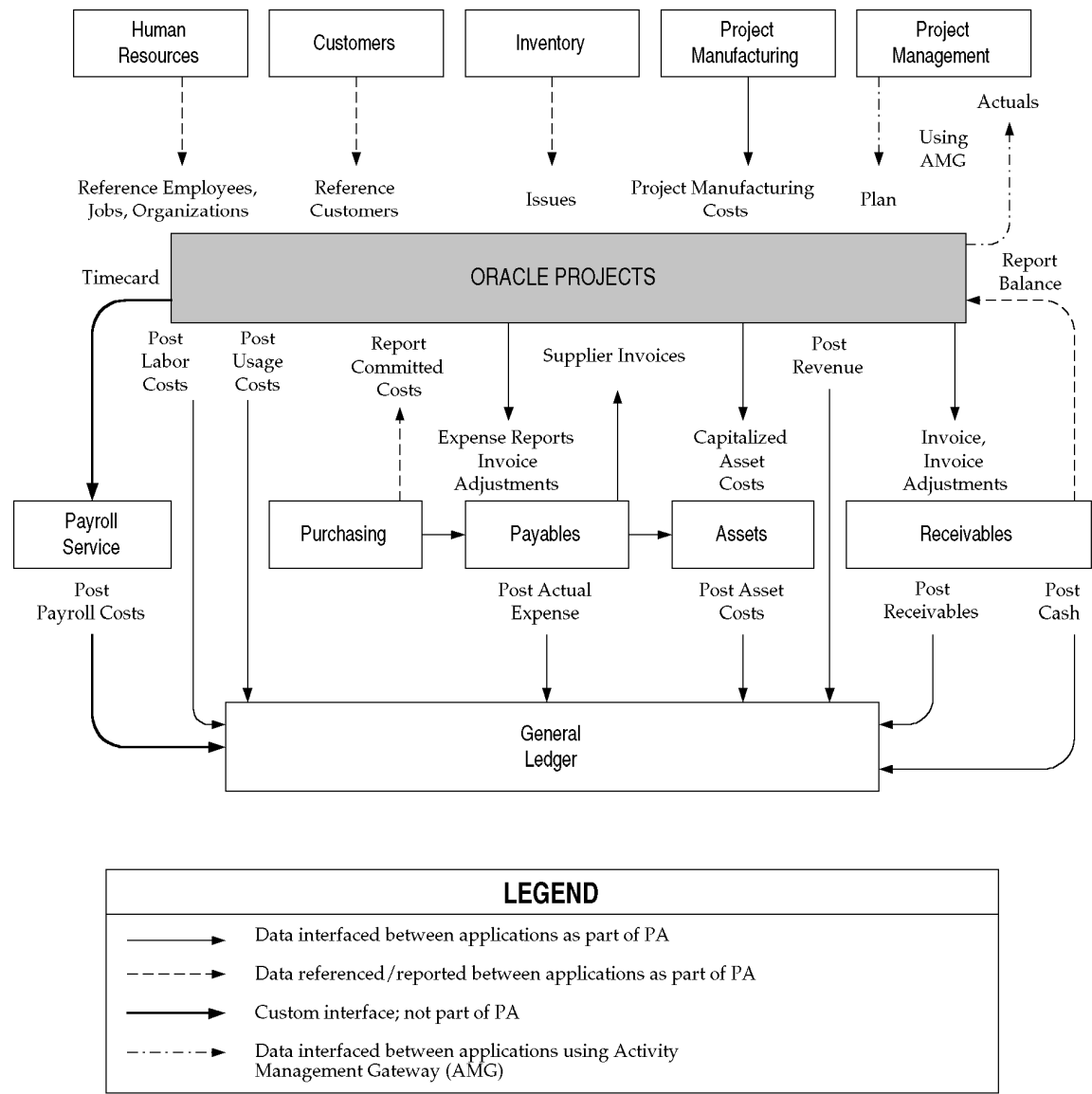
Integration with Other Oracle Applications

This chapter describes how to integrate Oracle Projects with other Oracle Applications.

System Integration

Oracle Projects integrates with many other Oracle Applications. The following diagram illustrates the integration flow between these systems.

Figure 13 – 1



See Also

Integrating with Oracle General Ledger: page 13 – 10

Integrating Expense Reports with Oracle Payables: page 13 – 21

Integrating with Oracle Purchasing and Oracle Payables (Requisitions, Purchase Orders, and Supplier Invoices): page 13 – 40

Integrating with Oracle Receivables: page 13 – 60

Integrating with Oracle Assets: page 13 – 72

Integrating with Oracle Human Resources: page 13 – 79

Integrating with Oracle Project Manufacturing: page 13 – 82

Integrating with Oracle Workflow: page 13 – 88

Integrating with Cash Management: page 13 – 106

Summary of Flow Diagram

Oracle General Ledger Integration

Oracle Projects fully integrates with Oracle General Ledger so you can update your general ledger with Oracle Projects activity. Use Oracle Projects to validate your expense, liability, revenue, and other accounts determined by your accounting rules against your chart of accounts.

When you transfer cost and revenue information to Oracle General Ledger, you use Oracle Projects to collect all project cost and revenue detail transactions, summarize them, and transfer them to Oracle General Ledger.

Oracle General Ledger integration includes:

- inquiry of journal entries imported from Oracle Projects via GL Journal Import and using the predefined journal entry sources and categories

Oracle Purchasing and Oracle Payables Integration—Requisitions, Purchase Orders, and Supplier Invoices

Oracle Projects fully integrates with Oracle Purchasing and Oracle Payables, and allows you to enter project-related requisitions, purchase orders, and supplier invoices using those products.

When you enter information in Oracle Purchasing and Oracle Payables that affects Oracle Projects, you enter project information on your source document. Oracle Purchasing, Oracle Payables, and Oracle Projects carry the project information from the requisition to the purchase order in Oracle Purchasing, to the supplier invoice in Oracle Payables, and to the project expenditure in Oracle Projects. You can report committed costs of requisitions and purchase orders that are outstanding against your projects in Oracle Projects.

Oracle Purchasing integration includes:

- entry of project information on requisition distribution lines
- entry of project information on PO distribution lines
- entry of project information on PO release distribution lines
- entry of project information on preferences
- copy project information from requisition to PO in AutoCreate
- support load of project information on requisitions in Requisition Import
- support building of GL account with Workflow based on project information

Oracle Payables integration includes:

- entry and inquiry of project information on invoice distributions
- entry and inquiry of project information on invoice header (for default entry)
- entry and inquiry of project information on distribution set lines
- copy project information from PO to invoice when they match
- support building of GL account with Workflow based on project information
- support load of project information in Invoice Import from project expense reports

Oracle Payables Integration—Expense Reports

Oracle Projects fully integrates with Oracle Payables so that you can easily create and pay invoices for your project expense reports in Oracle Payables. You can enter expense reports in Oracle Projects and use Oracle Payables to create invoices from the expense reports, maintain and track payments of them, and transfer the accounting transactions to Oracle General Ledger.

Oracle Receivables Integration

Oracle Projects fully integrates with Oracle Receivables to process your invoices and track customer payments. Oracle Projects generates draft invoices and uses Oracle Receivables to collect payments for the project invoices and transfer the accounting transactions to Oracle General Ledger.

When you transfer invoices to Oracle Receivables, Oracle Projects also maintains project balances of unbilled Receivables and unearned revenue and creates accounting transactions for these amounts.

Oracle Receivables integration includes:

- loading of project invoices via AutoInvoice and using the transaction flexfield for project information to be stored on the invoices in AR
- inquiry of invoices by project information using the transaction FlexField in AR forms
- inquiry of invoices by a key reference
 - User able to specify one segment of the transaction FlexField as the reference (for example, key identifier for PA, project number, for OE, or order number) via the profile code PA_AR_CODE.
 - Include the reference for invoice (e.g. project number, order number) in appropriate position for highly used field for display and inquiry on all AR transaction forms and quickpicks. Users will look at invoices by one or a combination of these values: reference, invoice number, and customer.
 - Display source of invoice, so that a user dealing with invoices from more than one source knows what the source of the invoice is
 - Distinguish Transaction Flex character field from standard descriptive Flex with 4 char field

- selection of invoices for cash application by displaying reference in the invoice List of Values in cash application forms
- inquiry of invoices by primary salesperson (project manager, if project manager is set up as salesperson in Oracle Receivables)
- entry and use of customers

Oracle Assets Integration

Oracle Projects allows you to manage capital projects. In a capital project, you can collect construction-in-process (CIP) and expensed costs for each asset you are building. You use Oracle Projects to collect all asset cost detail transactions, summarize them, and transfer them to Oracle Assets to become depreciable fixed assets. Oracle Assets will create and transfer journal entries to Oracle General Ledger to relieve the CIP account and record the asset cost.

Oracle Assets integration includes:

- inquiry of project information on mass addition lines
- drilldown to project asset line details in Oracle Projects from project-related mass addition lines in Oracle Assets
- copying of project information from mass addition lines to asset source lines during Mass Additions Posting process
- inquiry of project information on asset source lines
- drilldown to project asset line details from project-related asset source lines
- Coordination with Oracle Payables so supplier invoices lines are not interfaced to Oracle Assets by both Oracle Payables and Oracle Projects when the invoice line is associated with a capital project.

For more information, see: About Capital Projects: page 7 – 2.

Oracle Human Resources Integration

Oracle Projects shares organization, job, and employee information with Oracle Human Resources. If your business does not use Oracle Human Resources, you can easily enter this data in Oracle Projects.

Oracle Human Resources integration includes:

- business group definition, including the specification of the Project Burdening Hierarchy
- job definitions

- organizations and organization hierarchies and organization types definitions
- entry and inquiry of employees and employee assignments, including date-effective assignments over time and specification of supervisors and billing titles (used in Oracle Projects) on the employee assignments

External Transaction Collection Systems Integration

You can load transactions from external cost collection systems into Oracle Projects using the Transaction Import function. You can load quantities or quantities and raw costs for the transactions. Oracle Projects calculates burdened cost, revenue, and invoice amounts, and performs all accounting functions for these imported transactions.

Summary of Project-Related Windows in Other Oracle Applications

The following table lists the windows in other Oracle Applications that include specific logic for project transactions.

Product	Form	Form Name	Window(s) with Oracle Projects Integration
PO	PO Workbench	POXPOEPO	PO Distributions – Projects tabbed region
PO	View POs	POXPOVPO	PO Distributions folder includes project fields
PO	Requisitions Workbench	POXRQERQ	Requisition Distributions – Projects tabbed region
PO	View Requisitions	POXRQVRQ	Requisition Distributions folder includes project fields
PO	Enter PO/Requisition Preferences	POXDOPRE	Projects tabbed region
PO	Enter Releases	POXPOERL	Release Distributions – Projects tabbed region
AP	Invoices Workbench	APXINWKB	1) Find (with dynamic field prompts) to search based on default project info at header level (not distributions) 2) Invoices folder includes projects fields 3) Invoice Distributions folder includes projects fields
AP	Distribution Sets	APXSUMDS	Distribution Lines

Product	Form	Form Name	Window(s) with Oracle Projects Integration
AP	Invoice Distribution Inquiry	APXGLINQ	1) Find – Projects tabbed region 2) Invoice Distributions folder includes projects fields
AR	Transactions		<i>Displays Transaction Flexfield and Reference field:</i> 1)Find 2) Transaction Summary 3) Transaction–Main 4) Transaction Credit 5) Copy Transactions 6) Lines – More 7) Credit Memo <i>Displays Transaction Flexfield</i> 1) Transactions – Freight 2) Transactions –Tax
AR	Transaction Overview		<i>Displays Transaction Flexfield and Reference field:</i> 1)Find 2)Transaction
AR	QuickCash		Display project number in Transaction LOV
AR	Cash Application		Display Reference in Transaction LOV
HR	Employees		Employee Assignments (multi–row)
FA	Mass Additions	FAXMADDS	1) Find Mass Additions window includes Project/Task fields 2) Mass Additions folder includes project fields 3) Mass Additions single row displays project fields 4) Mass Additions single row window includes Project Details button to drill down to Oracle Projects

Product	Form	Form Name	Window(s) with Oracle Projects Integration
FA	Assets Workbench	FAXASSET	1) Find – Find by Source Line tabbed region 2) Source Lines window displays project fields at bottom of page 3) Source Lines window has Project Details button to drill down to Oracle Projects
FA	Financial Inquiry	FAXOLFIN	1) Find – Find by Source Line tabbed region 2) Source Lines folder includes project fields 3) Source Lines window has Project Details button to drill down to Oracle Projects

Integrating with Oracle General Ledger

Oracle Projects fully integrates with General Ledger and allows you to easily update your general ledger with project accounting entries resulting from project cost, revenue, and cross charge transactions. Oracle Projects lets you validate your expense, liability, revenue, and other accounts determined by AutoAccounting against your chart of accounts.

When you interface project accounting entries to General Ledger, you use Oracle Projects processes which collect all eligible distribution lines, summarize them, and interface them to an General Ledger interface table.

After you interface project accounting entries to the Oracle General Ledger interface table, you run the Journal Import program. This program creates journal entries for your cost, revenue, and cross-charged transactions, which you can post to General Ledger at any time.

After you run the Journal Import program to create journal entries, you tieback project items to Oracle Projects to ensure that all items are successfully loaded into General Ledger. If any items are rejected, you correct them and interface them again to General Ledger.

You can use standard Oracle Projects reports to reconcile your summary project-related journal entries to your project accounting detail transactions. You can also use standard reports to track your expenditure items in Oracle Projects and your journal entries in Oracle General Ledger as you interface data between products.

See Also

Importing Journals *Oracle General Ledger User's Guide*

Overview of AutoAccounting: page 17 – 237

Accounting Transactions: page 15 – 16

Implementing General Ledger

You need to implement the following information in Oracle General Ledger before you can use Oracle General Ledger with Oracle Projects:

- Set of books
- Calendar

Also during the implementation process, you need to specify if you want to interface costs and revenue transactions to Oracle General Ledger. You do this using the Implementation Options window in Oracle Projects.

Loading Legacy Data

You may elect to load legacy transactions to Oracle Projects using the Transaction Import process. The General Ledger balances for these transactions may be loaded directly to Oracle General Ledger, so you would not want to transfer the accounting entries for the legacy transactions from Oracle Projects to Oracle General Ledger.

► To Load Legacy Data:

In the Implementation Options, set options that control whether you want to interface the costs and revenue to GL as follows:

Interface Labor Costs to GL	N
Interface Usage Costs to GL	N
Interface Revenue to GL	N

When these options are set to No, the Interface to GL programs will mark the rows as Accepted, but will not create rows in the GL interface table.

You should run the Interface to GL programs, even when these options are set to No, so that the above actions will occur.

After all the legacy transactions have been loaded, set the control options to Y before you process any new transactions.

See Also

Setting Up Oracle Applications Set of Books: page 17 – 27

Data that Oracle Projects Predefines

General Ledger uses journal entry sources and journal entry categories to differentiate the various cost and revenue journal entry transactions you load into Oracle General Ledger.

Journal entry sources

A journal entry source identifies the origin of a journal entry. Each journal entry in the general ledger is associated with a journal entry source. For example, when you import a journal entry to General Ledger from Oracle Projects, *Projects* is that journal entry's source.

Oracle Projects predefines one journal entry source named *Projects* for the source of project accounting journal entries for cost, revenue, and cross charge transactions.

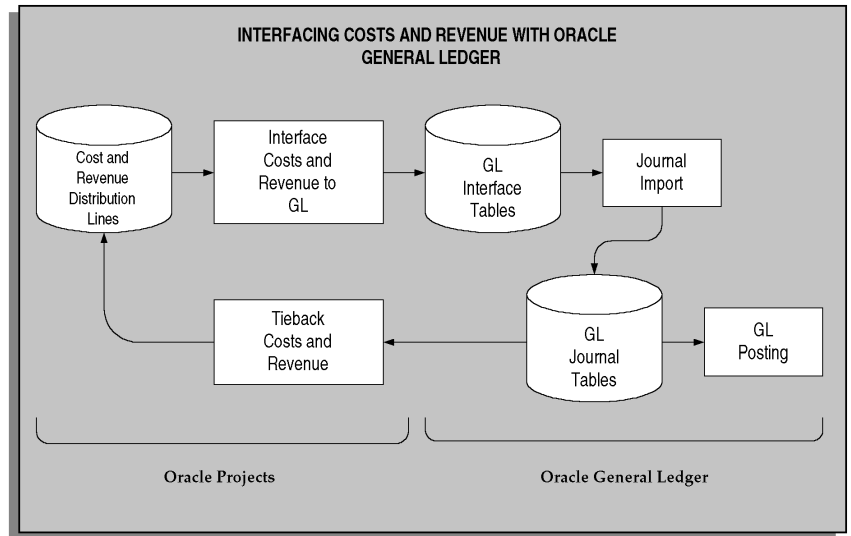
Journal entry categories

Journal entry categories categorize the types of transactions you can enter in your general ledger.

Oracle Projects predefines four journal entry categories for the journal entries you import to Oracle General Ledger. Three categories are for cost transactions, and the other is for revenue transactions.

- Labor Cost
- Usage Cost
- Total Burdened Cost
- Borrowed and Lent
- Provider Cost Reclassification
- Revenue

Figure 13 – 2



You can interface records for your cost, revenue, and cross charge transactions to Oracle General Ledger whenever you are ready and as many times during an accounting period as you wish. You can then use Oracle General Ledger to create journal entries for your transactions and post these journal entries, according to your accounting practices.

If you implement Multiple Reporting Currencies in Oracle Projects, you must interface costs, revenue, and cross charges to General Ledger in your primary currency before you can interface costs, revenue, and cross charges in your reporting currencies. See also: *Multiple Reporting Currencies in Oracle Applications*.

Submitting Processes

You can interface costs, revenue, and cross charges to General Ledger using Oracle Projects streamline processes. When you use a streamline process, you submit one request that interfaces project accounting entries to General Ledger, runs Journal Import, and ties back costs and revenue to Oracle Projects. The streamline process submits each process sequentially. We discuss each of these processes in the pages that follow.

You use the following streamline options to interface costs and revenue with Oracle General Ledger:

- DXB: Distribute and Interface Total Burdened Costs to GL
- DXC: Distribute and Interface Borrowed and Lent Amounts to GL
- DXL: Distribute and Interface Labor Costs To GL
- DXU: Distribute and Interface Usage Costs To GL
- XC: Interface Cross Charge Distributions to GL
- XR: Interface Draft Revenue to GL
- XRXI: Interface Draft Revenue to GL and Invoice to AR
- XB: Interface Total Burdened Costs to GL
- XL: Interface Labor Costs To GL
- XU: Interface Usage Costs To GL

You submit a streamline process by requesting the PRC: Submit Interface Streamline Process using the Submit Request form.

If you need to perform an individual function (such as interfacing labor costs), you can use an individual process.

The streamline processes which include distribution processes (DXL, DXC, and DXU) should not be run during critical processing times. You should run individual distribute processes, and then run the interface and tieback streamline processes later. This will speed up the cycle of getting project information to project managers.

See Also

Submitting Requests: page 10 – 2

Processes: page 11 – 1

Interfacing Costs and Revenue to General Ledger

You use processes to collect all eligible project accounting entries in Oracle Projects and interface them to General Ledger. When you interface project accounting entries to Oracle General Ledger, Oracle

Projects collects all eligible distribution lines with the cost, revenue, and transfer price amounts.

Oracle Projects summarizes detail lines into summary interface lines and places the summarized information into an Oracle General Ledger interface table. Oracle Projects summarizes detail lines by Code Combination ID (CCID), GL Period, and Journal Entry Source.

Items must be cost, revenue, or cross-charge distributed before you can interface them to Oracle General Ledger.

GL Date

The GL Date of the cost, revenue, or cross charge transaction determines the accounting period in which a transaction is posted to a general ledger account. In Oracle Projects, for cost, revenue, and cross charge transactions, the GL Date is the end date of the earliest open or future GL Period on or after the PA Date of a cost distribution line, a draft revenue, or a cross-charge distribution.

Oracle Projects determines the accounting period by comparing the PA Date to the ranges of dates you have defined for your accounting periods in General Ledger.

See: Date Processing in Oracle Projects: page 15 – 3

Accounting Transactions

When you interface revenue to Oracle General Ledger, Oracle Projects uses AutoAccounting to determine the accounts for unbilled receivables and unearned revenue. Oracle Projects also uses AutoAccounting to determine the liability account for each type of cost you interface (such as labor or usage). The accounting transactions that the process creates are interfaced to General Ledger interface tables.

See: Accounting Transactions: page 15 – 16

Output Reports

Each time you interface project accounting entries to Oracle General Ledger, Oracle Projects prints output reports which allow you to track your successfully interfaced distribution lines, as well as those distribution lines which fail to interface. You should correct any exceptions and resubmit the process to successfully import rejected items.

Journal Import

The Oracle General Ledger Journal Import program takes the summary interface information stored in the Oracle General Ledger interface table and automatically creates cost and revenue journal entries for posting in General Ledger.

Journal Import creates a journal entry batch for each set of books and accounting period of your revenue and cost journal entry records. For each journal entry category in a batch, Journal Import creates a journal entry header. For each header in a journal entry batch, Journal Import creates one or more journal entry lines that correspond to the journal entry records you interfaced from Oracle Projects to General Ledger.

If you run Journal Import from Oracle General Ledger instead of using one of the Oracle Projects streamline options, you should choose not to summarize costs, since Oracle Projects summarizes your project accounting data when you interface costs, revenue, and cross charges to Oracle General Ledger.



Warning: If you run Journal Import from Oracle General Ledger, you should not post errors to suspense. If you do post errors to suspense, your project accounting details will not reconcile with your general ledger summary amounts.

Once Journal Import validates your import data, it sends the data from the interface table to Oracle General Ledger journal entry tables.

You should not correct Journal Import data from Oracle Projects in Oracle General Ledger; if you do, Oracle Projects may not reconcile with Oracle General Ledger.

Journal Import Execution Report

Each time you run Journal Import, Oracle General Ledger prints the Journal Import Execution Report which allows you to review the status of your import journal entries. You should correct any exceptions and resubmit Journal Import to successfully import rejected journal entries.

See Also

Importing Journals *Oracle General Ledger User's Guide*

Tieback Costs and Revenue from Oracle General Ledger

After you run Journal Import, you run the appropriate Tieback process to verify your project accounting data loaded successfully into Oracle General Ledger.

Output Reports

Each time you tieback costs, revenue, and cross charges from Oracle General Ledger, Oracle Projects prints output reports which allow you to track your successfully interfaced costs, revenue, and cross charges, as well as those distribution lines which fail to interface. You should correct any exceptions and interface them again to Oracle General Ledger.

See Also

Processes: page 11 – 1

Posting in Oracle General Ledger

When Journal Import runs, it does not automatically post and update your account balances in Oracle General Ledger with these journal entries. You can post these journal entries in General Ledger at any time to update your account balances.

See Also

Posting Journal Batches *Oracle General Ledger User's Guide*

Intercompany Accounting in Oracle General Ledger

Journal Import automatically creates intercompany accounting transactions based on the intercompany accounts you define in Oracle General Ledger. You can specify the intercompany balancing account you want General Ledger to use. You can also define intercompany accounts for General Ledger to use for balancing different types of journal entries.

When you load a journal entry that requires intercompany balancing, Journal Import looks first for an intercompany account for the same source and category as the journal entry. If there is none, General Ledger balances your journal entry to the standard intercompany account you defined for your set of books.

See Also

Defining Intercompany Accounts *Oracle General Ledger User's Guide*

Opening and Closing Periods

You can open and close accounting periods (PA Periods) in Oracle Projects independently of General Ledger.

The period statuses available in Oracle Projects are Open, Closed, Future, Pending Close, Permanently Closed, and Never Opened.

The period statuses available in General Ledger are Open, Closed, Permanently Closed, Never Opened, and Future Entry.

See Also

PA Periods: page 17 – 69

Opening and Closing Accounting Periods *Oracle General Ledger User's Guide*

Reporting

Oracle Projects automatically maintains audit information so you can reconcile your summary journal entries to your detail project accounting transactions. Oracle Projects provides two reports to help you with your reconciliations:

GL Cost Interface Audit Report

You can use the GL Cost Interface Audit report to review and reconcile labor and usage cost distribution lines interfaced from Oracle Projects to Oracle General Ledger. This report displays items by the expense Account and displays information about each expenditure item and the associated liability Account.

Cross Charge GL Audit Report

You can use the Cross Charge GL Audit report to review cross charge distribution lines interfaced from Oracle Projects to Oracle General Ledger. This report displays items by the debit account number. Information about the item and the credit account are also displayed.

GL Revenue Interface Audit Report

You can use the GL Revenue Interface Audit report to review and reconcile a listing of the revenue distribution lines interfaced from Oracle Projects to Oracle General Ledger. The revenue distribution lines are reported by revenue Accounting and by project. This report also displays project unbilled receivable and unearned revenue amounts and Accounts.

See Also

GL Cost Interface Audit: page 10 – 38

Cross Charge GL Audit: page 10 – 39

GL Revenue Interface Audit: page 10 – 39

Other Journal Entry Issues

Creating Cost and Revenue Adjustments

We recommend that you create adjustments for cost, revenue, and cross charge distribution lines in Oracle Projects. If you adjust cost, revenue, and cross charge transactions in Oracle General Ledger, those adjustments are not recorded in Oracle Projects, and will not reconcile with Oracle Projects details.

Drilldown from Oracle General Ledger to Oracle Projects

Use the View Accounting window to drill down from journal lines in Oracle General Ledger to cost, revenue, or cross charge distributions and subsequently transactions in Oracle Projects.

When cost distribution lines are summarized and successfully interfaced to Oracle Ledger, the batch_name field in the PA_COST_DISTRIBUTION_LINES table is populated. This value is a concatenation of liability CCID (code combination ID), GL date, and transfer request ID, separated by hyphens. This same value is used to populate the reference_1 field in the GL_JE_LINES table.

Integrating Expense Reports with Oracle Payables

You can enter expense reports containing project and task information in Oracle Projects, Oracle Self-Service Expenses, or Oracle Payables.

This section describes how to ensure that transactions resulting from project-related expense reports are properly accounted for, and covers the following topics:

- Overview: page 13 – 21
- Setting up in Payables and Oracle Projects: page 13 – 23
- Processing Expense Reports Created in Oracle Projects: page 13 – 24
- Processing Expense Reports Created in Self-Service Expenses: page 13 – 30

Overview

Expense report data created in Oracle Projects or Self-Service Expenses is sent to Payables. Payables creates invoices from the expense reports, maintains and tracks payment, and then sends the accounting transactions to Oracle General Ledger. Once these tasks are accomplished, expense reports containing project and task information can be sent to Oracle Projects.

Exactly how the transactions created by expense reports are ultimately posted to General Ledger depends on how the expense report was created originally.

Expense Reports Imported into Oracle Projects

All expense reports created in Oracle Projects contain project and task information. Expense reports imported from an external source, such as a third-party application, must be sent to Payables (for invoice creation and payment) and then tied back to Oracle Projects.

Expense Reports Entered in Self-Service Expenses

Employees can include project and task information in an expense report created in Oracle Self-Service Expenses. (Click the Enter Receipts tab to display the window containing the Project Number and Task Number fields. The window displays these fields if you select an

expense type that is associated with an Oracle Projects expenditure type.)

Expense reports entered in Self-Service Expenses must be sent to Payables and then to Oracle Projects. These expense reports have an expenditure type class of Expense Report and do not need to be tied back to Oracle Projects. See: Entering Project-Related Invoices and Expense Reports *Oracle Payables User's Guide*

Expense Reports Entered in Payables

You can enter project and task information on expense reports in the Invoices window (enter Expense Report in the Type field). The supplier must be an employee. See: Define Employees as Suppliers: page 13 – 23.

Expense reports entered in the Invoices window are assigned an expenditure type class of Expense Report and are processed similarly to expense reports entered in Self-Service Expenses.

The Expense Report window in Payables does not record project information for expense report lines. Use the Invoices window instead.

This chapter does not describe how expense reports entered in Projects are processed. See: *Oracle Payables User's Guide*.

For All Expense Reports

You can use standard reports to track your expense reports as the expense report information moves from one application to another.

You can also use Payables features to create advances (prepayments) and adjustments, and then apply them against Oracle Projects expense reports and invoices in Payables. See: Advances and Prepayments: page 13 – 34 and Adjusting Expense Reports: page 13 – 36.

See Also

Transaction Import: page 14 – 11

Setting Up in Payables and Oracle Projects

Before you can interface project-related expense reports between Oracle Projects, Payables, and Self-Service Expenses, you must carry out certain tasks.

- In Payables:
 - Define employees as suppliers
 - Accept or override the employee address
 - Determine the expense report cost account
- *(Optional)* In the System Administrator responsibility, set profile options

Define Employees as Suppliers

Before Payables can create invoices for an employee's expense reports, the employee must be defined as a supplier. You can either enable Payables to create a supplier automatically for employees lacking a supplier record or enter the employee manually as a supplier in the Suppliers window.

If an employee is not a supplier, Payables does not create an invoice and lists the expense report as an exception.

► **To define employees as suppliers:**

1. In Payables, navigate to the Payables Options window.
2. From the alternative area, choose Expense Report.
3. Select Automatically Create Employee as Supplier.

Accept or Override the Employee Address

Payables sends the reimbursement to the employee's default address (Home or Office), which is set for the employee in HR. You can override the Home or Office setting in the Expense Reports window in Payables.

Payables uses the same value when creating a supplier record.

Determine the Expense Report Cost Account

For expense reports entered in Oracle Projects and adjustments made to those expense reports, Oracle Projects uses AutoAccounting (not the

employee's default expense account) to determine the expense report cost account.

For expense reports entered in Self-Service Expenses and the Invoices window, an account generator (the Project Expense Report Account Generator, a process in Oracle Workflow) determines the expense account for each transaction that includes project and task information. The Default Account Generator for Expense Reports process used the CCID (code combination identifier) entered for the employee in Human Resources.

For more information, see: Using the Account Generator in Oracle Projects: page 17 – 302. and see: AutoAccounting and the Account Generator: page 17 – 237.

(Optional) Set Profile Options

Using the System Administrator responsibility, open the System Profile Values window and set the following profile options:

- PA: Summarize Expense Report Lines specifies whether lines in expense reports created in Oracle Projects are summarized by code combination ID when you interface the expense reports to Payables.
- PA: Allow Project Time and Expense Entry specifies whether a user can enter project-related transactions in Self-Service Expenses. See: Profile Option—PA: Allow Project Time and Expense Entry: page B – 5.
- PA: Expense Report Invoices Per Set specifies the number of Payables invoices to process each time the Interface Expense Reports from Payables (a Payables process) is run. See Profile Option—PA: Expense Report Invoices Per Set: page B – 12.

Implementing Oracle Payables for Projects Integration: page 18 – 50

Updating Profile Options for Integration with Other Products: page 18 – 46

Employees and Organizations: page 17 – 34

Processing Expense Reports Created in Oracle Projects

To prepare for interfacing expense reports created in Oracle Projects, you must first distribute the expense report costs. Then, you can send

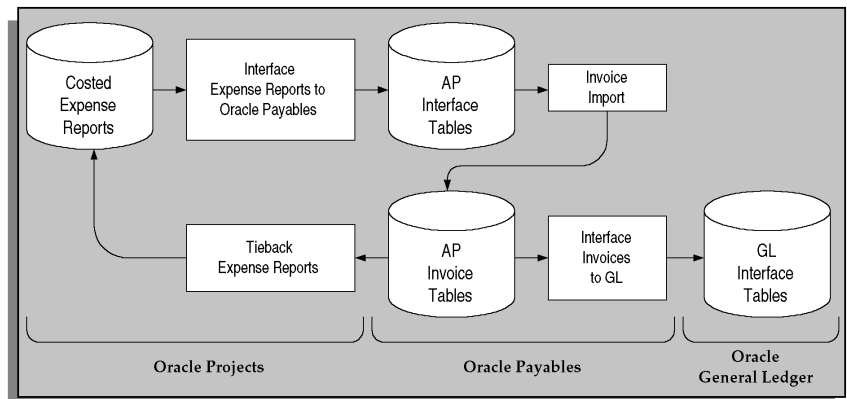
the costed expense reports to Payables whenever you are ready and as many times during an accounting period as you want.

This section covers the following topics:

- Distributing expense report costs: see page 13 – 25
- Sending expense reports to the Payables interface tables. See: Interfacing Expense Reports to Payables: page 13 – 26
- Importing the expense report information in the tables to create invoices and invoice distribution lines. See: Importing Payables Invoices: page 13 – 27
- Tying back both accepted and rejected expense reports to Oracle Projects. See: Tying Back Expense Reports from Payables: page 13 – 29
- Submitting the interface streamline processes: see page 13 – 29
- Transferring invoices to General Ledger. See: Transferring Payables to General Ledger: page 13 – 30

Figure 13 – 3 illustrates the processing flow.

Figure 13 – 3 Processing expense reports created in Oracle Projects



Distributing Expense Report Costs

You must run the Distribute Expense Report Costs process before you interface expense reports with Payables. This process groups expenditure items into batches of expense reports and determines the expense account held in the cost distribution line.

Interfacing Expense Reports to Payables

Two processes have very similar names. The process described here sends expense report information *to* Payables.

The Interface Expense Reports to Payables process collects eligible costed expense reports in Oracle Projects and sends them to the Payables interface tables. Once loaded onto these interface tables, the expense reports await further processing by the Payables Invoice Import program.

When you send invoices to Payables, Oracle Projects sets the purgeable flag for each expense report in Payables to *No*.

This process also sends costed adjustments to Self-Service Expenses expense reports that you interfaced from Payables. Payables loads these adjustments into the Payables invoice tables automatically, so you do not need to run the Payables Invoice Import program.

Before you interface expense reports to Payables, run the PRC: Distribute Expense Report Costs process to distribute costs for any adjustments you have made.

If expense reports from any source fail to post to Payables, you may need to redistribute costs (using the PRC: Distribute Expense Report Costs process) before you send the expense reports to Payables again.

For more information, see: Interface Expense Reports to Payables: page 11 – 44.

Determining the Accounting Period

The GL Date of the expense report cost determines the accounting period in which a transaction is posted to a general ledger account. In Oracle Projects, the GL Date for costs is the end date of the earliest open or future GL Period that is on or after the latest PA Date of the cost distribution lines included in an expense report. All cost distribution lines for an expense report are sent together to Payables and use the same GL date. This GL date becomes the GL date of the invoice in Payables. See: Date Processing in Oracle Projects: page 15 – 3.

Determining the Liability Account

The Interface Expense Reports to Payables process uses AutoAccounting to determine the liability account when the expense reports costs are distributed. (Oracle Projects does not use the

employee's default expense account.) The process sends the accounting transactions for expense reports to the Payables interface tables.

Reports

Oracle Projects prints a report that lists the interfaced and rejected expense reports. Correct the rejected expense reports and resubmit them to Payables.

Importing Payables Invoices

Payables Invoice Import is a Payables program. (See: Payables Invoice Import Program *Oracle Payables User's Guide*.)

The Payables Invoice Import program creates invoices and invoice distribution lines from Oracle Projects expense report information that you load into Payables interface tables. Payables imports the expense report data into Payables invoice tables.

Payables Invoice Import does not call Workflow. If you manually populate the invoice import tables, you must supply the accounting flexfield information.

If you submit the program from Payables, you must specify a source of *Oracle Projects*. Leave the batch name and GL date blank. You can also use one of the Oracle Projects streamline options to submit the Payables Invoice Import program from Payables.

Oracle Payables identifies invoices you create from Oracle Projects expense reports with a source of *Oracle Projects*.

Adjustments are a special case. You do not need to run Payables Invoice Import for adjustments to expense reports already interfaced or tied back from Payables.

Prerequisites

- Enter expense reports in Oracle Projects.
- Run the Oracle Projects PRC: Distribute Expense Report Costs process to calculate the amount and generate accounts.
- Submit Oracle Projects PRC: Interface Expense Reports to Payables process to transfer expense reports to the Payables Invoice Interface Tables.

- If the Automatically Create Employee As Supplier option is not enabled in Payables, enter the employee as a supplier in the Supplier window.

► **To import invoices:**

1. In the Submit Request window, choose the Request Type and select Payables Invoice Import.
2. Enter the report parameters.

Do not enter a batch name or a GL date field. Select Oracle Projects for the source.

If you want to purge expense reports from the Invoice Import Interface Tables, enter the date criteria you want Payables to use. Payables will delete all Oracle Projects expense reports that were entered before this date and have already been imported and tied back to the original expense report in Oracle Projects.

3. Choose OK.

When the program is complete, you can query the new invoices in the Invoices window. The new invoices are ready for approval and payment.

Payables creates invoices with the following attributes:

Attribute	Description
Type	Expense report
Supplier Name	Employee name
Invoice Date	Week ending date
Invoice Number	The expenditure batch name from Oracle Projects appended to a unique identifier for the expense report
Invoice Distributions	Based on cost distribution of expense report items. Each invoice distribution in Oracle Projects includes expenditure item information, such as project information, amount, and account coding.
Invoice Liability Account	Based on AutoAccounting rules in Oracle Projects
Scheduled Payments	Based on payment terms defined in the Payables Options window
Payment Method	Method from the Financial Options window
Income Tax Type	For federally reportable 1099 suppliers, Payables, the income tax type for each invoice distribution

4. In Oracle Projects, run the PRC: Tieback Expense Reports from Payables process.

Reports

Oracle Projects prints a report that lists the interfaced and rejected expense reports. Correct the rejected expense reports and resubmit them to Payables.

Tying Back Expense Reports from Payables

The Tieback Expense Reports from Payables process links the expense report in Oracle Projects to the invoice in Payables, but does not tie back the invoice details. (To view details, drill down in the Expenditures Inquiry window. You can also query the invoice in the Invoices window in Payables.)

The tieback process identifies expense reports rejected by Payables Invoice Import. Correct the rejected expense reports and send them to Payables again.

Tying back the invoices causes Oracle Projects to update the purgeable flag for each expense report in the Payables interface tables from *No* to *Yes*.

For more information, see: Tieback Expense Reports from Payables: page 11 – 67

Reports

Oracle Projects prints a report that lists the interfaced and rejected expense reports. Correct the rejected expense reports and resubmit them to Payables.

Submitting the Interface Streamline Processes

Streamline processes submit two or more one processes in one step. You can use streamline processes to interface expense reports to Payables, import the invoices, and tie back the invoices to Oracle Projects. Streamline processes submit each process sequentially.

If you want to perform a single function, such as interfacing expense reports, you can use an individual process.

Some processes use a lot of system resources, so do not run processes that distribute costs (DXES, DXEU and DTE) during critical processing

times. Instead, run the distribution processes separately, and then run the interface and tieback streamline processes later.

To submit the streamline process, use one of the following streamline options

DXES	Distribute and Interface Exp Report Costs to AP ¹
DXEU	Distribute and Interface Exp Report Costs to AP ²
XES	Interface Expense Report Costs to AP ¹
XEU	Interface Expense Report Costs to AP ²
DTE	Distribute and Transfer Expense Report Costs to AP
ITES	AP Invoice Import ¹ and Tieback Expense Reports
ITEU	AP Invoice Import ² and Tieback Expense Reports
¹ Summarized reports that display expense report lines summarized by code combination ID. See: PA: Summarize Expense Report Lines: page B – 16	
² Detailed report processes that generate an invoice distribution in Payables for each detail expense report cost distribution line	

You must use the same report mode (see footnotes above), either summarized or detailed, to interface expense report costs to Payables and then tie back those expense reports, regardless of whether you submit a streamline process or an individual process.

For more information, see: Submitting Streamline Processes: page 11 – 6.

Transferring Payables to General Ledger

After the Payables Invoice Import program creates invoices, and you approve and pay them in Payables, use the Payables Transfer to General Ledger program to send the invoice information to General Ledger interface tables.

In General Ledger, post the invoice interface data to update your account balances. See: Payables Transfer to General Ledger (Posting) *Oracle General Ledger User's Guide*.

Processing Expense Reports Created in Self-Service Expenses

Except as noted, the information in this section also applies to expense reports created in the Invoices window (in Payables).

Expense reports created in Oracle Self-Service Expenses go directly to the Payables interface tables, making it unnecessary to run the Interface Expense Reports to Payables process. Payables then creates the appropriate accounting transactions, some of which result from expense reports that contain project and task information. Payables creates these project-related transactions based on business rules you defined in the Project Expense Report Account Generator workflow.

You do not need to tie back project-related expense reports entered in Self-Service Expenses. The Interface Expense Reports from Payables process brings expense report details into Oracle Projects for expense reports created in Self-Service Expenses.

You can adjust expense reports entered in Self-Service Expenses in either Payables or Oracle Projects. You can also transfer or split expense report items (net zero adjustments), recost the expense reports, and then send the information to Payables. Payables ultimately posts these adjusted transactions to General Ledger. See: *Adjusting Expense Reports*: page 13 – 36.

You can view expense report costs as commitments before you interface the costs to Oracle Projects. (This is similar to viewing supplier invoice costs as commitments.) See: *Commitment Reporting*: page 13 – 52.

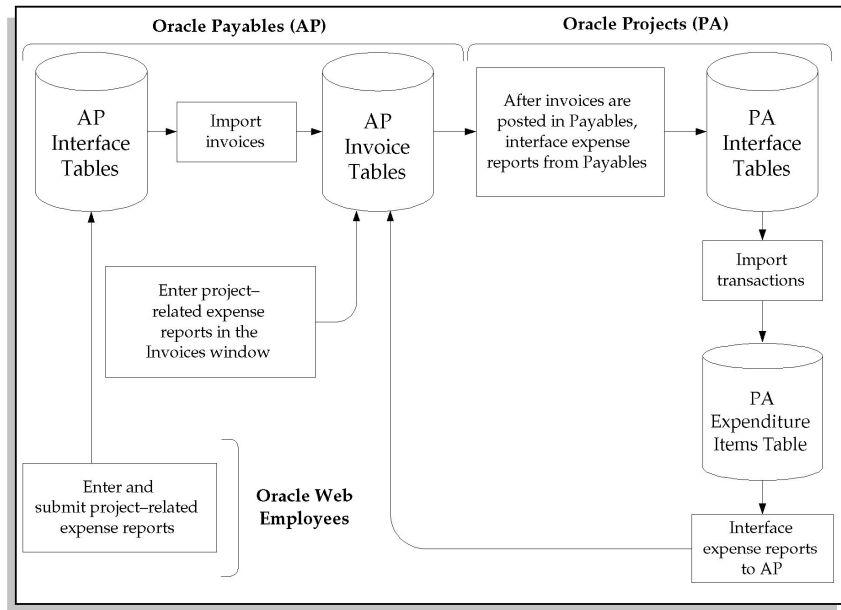
Expense reports submitted in Self-Service Expenses are routed according to the AP Expense Report workflow (item type). See: *Expense Reporting Workflow Oracle Payables User's Guide*.

This section covers the following topics:

- Importing the expense report into the Payables Invoice table (using the Payables Invoice Import program in Payables): see page 13 – 32
- Interfacing invoices to Oracle General Ledger (using the Payables Transfer to General Ledger program): see page 13 – 33
- Create pre-approved expense report batches from expense reports entered in Self-Service Expenses (using the Interface Expense Reports from Payables process): see page 13 – 33

Figure 13 – 4 illustrates the processing flow.

Figure 13 – 4 Processing expense reports created in Self-Service Expenses



See Also

Generating Accounts for Oracle Payables: page 17 – 303

Entering Project-Related Invoices and Expense Reports *Oracle Payables User's Guide*

Payables Invoice Import Program *Oracle Payables User's Guide*

Importing Payables Invoices

You do not need to import expense reports entered directly in the Invoices window, because the system saves those expense reports directly to the Payables invoice tables.

The Payables Invoice Import program processes expense reports created in Self-Service Expenses as well as those entered in Oracle Projects and interfaced to Payables.

Payables identifies invoices created from Self–Service Expenses expense reports with a source of *Self Service*.

Adjustments to expense reports created in Self–Service Expenses or the Invoices window (in Payables) are loaded directly into the AP invoice tables. You do not need to run Payables Invoice Import, either as an individual process or as part of the streamline interface processes ITES and ITES.

For prerequisites and procedures for importing project–related expense reports from Self–Service Expenses, see: Payables Invoice Import Program *Oracle Payables User’s Guide*.

Transferring Payables to General Ledger

After the Payables Invoice Import program creates invoices, and the invoices (expense reports) are approved and paid in Payables, use the Payables Transfer to General Ledger program to send the invoice information to the General Ledger interface tables.

In General Ledger, you post the invoice interface data to update your account balances. For detailed information about posting journals, see: Payables Transfer to General Ledger (Posting) *Oracle General Ledger User’s Guide*.

Interfacing Expense Reports from Payables

Two processes have very similar names. The process described here gets expense report information *from* Payables.

After you post the invoice distribution lines to General Ledger, use the Interface Expense Reports from Payables process to import the invoice to Oracle Projects. This process calls the Transaction Import process, which loads project–related invoice distribution lines, calculates the burden amounts for the appropriate imported raw costs, and creates a pre–approved expense report batch in Oracle Projects, based on the project–related invoice distribution lines.

After you post the invoice distribution lines to General Ledger, use the Interface Expense Reports from Payables process to import the invoice to Oracle Projects. This process calls the Transaction Import process, which:

- Loads project–related invoice distribution lines
- Calculates the burden amounts for the appropriate imported raw costs

- Creates a pre-approved expense report batch in Oracle Projects, based on the project-related invoice distribution lines

The process does not import descriptive flexfield information entered in Self-Service Expenses or Payables.

Oracle Projects generates transactions with a source of *Oracle Payables*. The Allow Adjustments option is enabled for the Oracle Payables source, but only net zero adjustments are allowed. You cannot reverse or recalculate burdened costs.

For information about the process parameters, see: Process—Interface Expense Reports from Payables: page 13 – 29.

Prerequisites

Before you run this process:

- Enter expense reports in Self-Service Expenses or the Invoices window.
- Verify that employees are designated as suppliers. (If they are not, the interface program will not import the invoice.) Conversely, suppliers must be designated as employees. See: Setting Up in Payables and Oracle Projects: page 13 – 23.
- Run the Payables Transfer to General Ledger program in Payables. See: Transferring Payables to General Ledger: page 13 – 30

Reports

This process prints a report that lists the interfaced and rejected invoice distribution lines, as well as a summary of the total number and cost of the distribution lines.

Correct the rejected invoice distribution lines (refer to the rejection reasons shown on the report), and then resubmit the process.

Advances and Prepayments

After an expense report is loaded into Payables, you can create prepayments and then use Payables to apply them against Oracle Projects expense reports. An advance, or prepayment, refers to funds advanced to an employee for travel or other expenses. When an employee incurs an expense and submits an expense report, you reduce

the amount of the reimbursement by applying outstanding prepayments to it.

You can apply prepayments to an expense report when the expense report is in the Payables interface tables or when the expense report is loaded in Payables as an invoice.

► **To apply prepayments to expense reports:**

1. Use Payables to enter a prepayment, approve it, and pay it (see: More About Prepayments: page 13 – 35).
2. Enter and approve the expense report in Oracle Projects and then release the expense report batch.
3. Distribute expense reports and interface them to Payables using Oracle Projects processes.

You can use the DTE Distribute and Interface Expense Report Costs to AP streamline option.

4. Apply the prepayment to an expense report using the Expense Report window in Payables (see below).
5. Run the Payables Invoice Import program and tie back invoices from Payables to Oracle Projects. You can use either of the following Oracle Projects interface streamline options:
 - ITES: AP Invoice Import and Tieback Expense Reports
 - ITEU: AP Invoice Import (Unsummarized Report) and Tieback Expense Reports.
6. Review invoices and payments in Payables.

More About Prepayments

When you enter a prepayment, Payables automatically creates invoice distributions and a scheduled payment. After you pay a prepayment, you can apply the paid amount to an expense report or invoice to reduce the amount you owe. Payables automatically creates reversing distribution and payment schedule lines and updates the remaining amount of the prepayment.

Use the Invoices window in Payables to create and approve prepayments. You must approve and pay a prepayment before you can apply it to an invoice. You can use the Payments window in Payables to pay a prepayment.

Use the Expense Report window in Payables to apply a prepayment or enter a hold against an expense report. You can apply prepayments and holds to expense reports after you interface expense reports into Payables, but before you run Payables Invoice Import and create invoices from the expense reports. You cannot change any information for an Oracle Projects expense report in the Expense Report window; you can only apply prepayments or holds.

You can also apply prepayments and holds to expense reports after you run Payables Invoice Import when the expense reports are invoices in Payables.

For more information, see: *Prepayments Oracle Payables User's Guide*.

Adjusting Expense Reports

How you adjust an expense report depends on which application was used to create it.

Adjustments interfaced *to* Payables appear on the same invoice in Payables. Adjustments interfaced *from* Payables appear in a separate expense report batch.

Adjusting Expense Reports Created in Oracle Projects

If you created an expense report in Oracle Projects, you should generally make the adjustments in Oracle Projects. You can adjust an expense report in Oracle Projects at any time, but you cannot interface adjustments to Payables until an invoice exists in Payables and you have run the tieback process.

Interfacing expense reports links adjusting transactions in Oracle Projects to the corresponding invoice in Payables. This linkage allows you to reconcile all project-related expense reports in Payables, and accurately account for your cash books if you use Cash Basis Accounting.

Adjusting Expense Reports Created in Self-Service Expenses

The information in this section also applies to expense reports created in the Invoices window (in Payables).

Expense reports created in Self-Service Expenses and the Invoices window can be adjusted in both Oracle Projects and Payables:

- In Oracle Projects, you can transfer or split expense lines (net zero adjustments). You cannot reverse expenditure items or recalculate burdened costs.
- In Payables, you can:
 - Modify line amount, project, task, or expense types by reversing existing invoice distribution lines and then creating new ones
 - Cancel the invoice completely

Before you can make adjustments in Oracle Payables or cancel an invoice in Payables, each application checks for outstanding adjustments or cancellations in the other. If outstanding adjustments exist, you must interface the adjustments before continuing.

You cannot adjust a Self-Service Expenses expense report if any of the following conditions are true:

- The invoice has been cancelled in Payables
- Adjustments made to this invoice in Payables have not been sent to Oracle Projects
- The item has been fully or partially prepaid
- The invoice has been fully or partially paid and either the Allow Adjustments to Paid Invoices option is disabled, or discount payment distributions have been associated with the invoice
- You are using cash basis accounting

For more information, see: Entering Invoices *Oracle Payables User's Guide*.

Purging Expense Reports

After you create invoices in Payables and then tie them back, you can create more space in your database by purging imported Oracle Projects expense reports from the Payables interface tables. To do so, identify the date through which you want to purge expense reports when you submit Payables Invoice Import. Payables purges the expense reports during the import process.

For expense reports created in Self-Service Expenses, you can have the Payables Invoice Import program purge imported information. The purge occurs after the program creates invoices from expense report information and the tieback process is complete.

It is a good practice to purge expense reports periodically.

Viewing Expense Reports in Oracle Payables

After you successfully send expense reports to Payables and run the Payables Invoice Import program, each expense report in Payables is converted to a Payables invoice. You can view these expense reports in Payables (just as you can any other invoice), as well as in Oracle Projects.

To view invoices that have been created from Oracle Projects expense reports, open the Invoices or Distributions window, query the project, task, and expenditures. In other windows, query the information that Oracle Projects passes to Payables:

- The employee name becomes the supplier name. The name appears in uppercase when it is generated by the system in Payables.
- The week ending date, or expenditure ending date, becomes the invoice date in Payables.
- The total expense report cost becomes the total invoice amount in Payables.

For each invoice distribution in Payables, you can also view information for each expenditure item, such as the project information, the amount, and the account coding.

To query the payment status of an employee's expense report, use the Find Invoices window and query by supplier name and invoice date. See Example: Finding an expense report: page 13 – 39.

You can use the Expense Report window in Payables to view expense reports submitted from Self-Service Expenses. The window also displays expense reports interfaced from Oracle Projects to Payables. Note that the Expense Report window does not display project and task information.

Interpreting Invoice Numbers

For expense reports entered in Oracle Projects, the invoice number is the expenditure batch name (from Oracle Projects) plus an expense report identifier. For example, the invoice number EX-DEN-125 R11-DEC-95 12:00:00-1000 is an invoice that was processed in the

expenditure batch of EX-DEN-125 R11-DEC-95 12:00:00, which is identified by the number 1000.

Interpreting Expense Report Batch Names

For expense reports entered in Oracle Projects, the expenditure batch name is a concatenation of the expenditure batch parameter, the type of batch, and the creation date and time.

If you do specify an expenditure batch parameter when you submit the Distribute Expense Report Costs process, the batch name prefix is *ALL*. The letter R represents a regular expense report batch, and the letter A represents an adjusted expense report batch. For example, a regular expense report batch could be named ALL R16-SEP-98 14:46:05 and a specific batch could be named EX-HQ-D523 A16-SEP-98 12:00:05.

Example: Finding an expense report

Your employee, Amy Marlin, wants to know the status of an expense report that she submitted on October 1, 1998. The expenditure ending date of her expense report was 15-SEP-1998. Expense reports are submitted to the local accounting staff for entry into Oracle Projects. You don't know when the expense report was entered in Oracle Projects or sent to Payables.

In Payables, navigate to the Find Invoices window and enter "%Marlin%" in the supplier name field. Enter invoice dates beginning September 1, 1998. Choose the Find button.

The Invoices window displays all of Amy Marlin's expense reports with expenditure ending dates after August 31, 1998 that have been sent to Payables. You will see if the expense report is in Payables, and has been posted to General Ledger, approved, and paid. You can also drill down to the individual distribution line items and see project information.

If the Invoices window does not display the expense report, check to see if the expense report has been sent to Payables but not yet imported. Navigate to the Expense Report window and query by Employee Name or Number.

Reviewing Invoices *Oracle Payables User's Guide*

Expense Reports *Oracle Payables User's Guide*

Integrating with Oracle Purchasing and Oracle Payables (Requisitions, Purchase Orders, and Supplier Invoices)

Oracle Projects fully integrates with Oracle Purchasing and Oracle Payables and allows you to enter project-related requisitions, purchase orders, and supplier invoices using those products.

When you enter project-related transactions in Oracle Purchasing and Oracle Payables, you enter project information on your source document. Oracle Purchasing, Oracle Payables, and Oracle Projects carry the project information through the document flow: from the requisition to the purchase order in Oracle Purchasing, to the supplier invoice in Oracle Payables, and to the project expenditure in Oracle Projects.

Oracle Purchasing and Oracle Payables use the Account Generator to determine the account number for each project-related distribution line based on the project information that you enter.

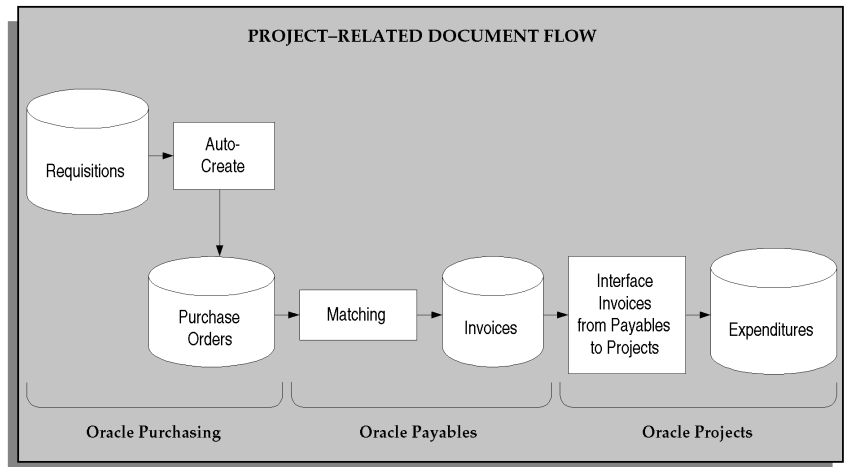
Using Oracle Projects views, you can report committed costs of requisitions and purchase orders that are outstanding against your projects in Oracle Projects.

Project-Related Document Flow

The following figure displays the flow of project-related information through Oracle Purchasing, Oracle Payables, and Oracle Projects. Each of these steps is described in the sections below.

When you enter project-related documents, you specify project information in addition to the information you normally specify for a document. You can use all the standard features of Oracle Purchasing and Oracle Payables, including encumbrance accounting and funds checking, when you enter project-related documents.

Figure 13 – 5



See Also

Using the Account Generator in Oracle Projects: page 17 – 302

Oracle Purchasing

When you enter project-related transactions in Oracle Purchasing, you only need to enter project information on the source document — either the requisition or the purchase order. When you automatically create purchase orders from requisitions using Oracle Purchasing AutoCreate feature, the project information from the requisition is copied to the purchase order.

Entering Requisitions

You enter project-related purchase requisitions using the Requisitions window in Purchasing. You can enter default project information in the Requisitions Preferences window in the Project Information tabbed region. This default information will be used to populate requisition distribution lines you create during your current session. The requisitions distribution line has a Project tabbed region for you to enter project-related information. A requisition can have a

combination of project-related and non-project-related distribution lines.

AutoCreate

When you automatically create purchase orders from project-related requisitions in the AutoCreate Documents window, Oracle Purchasing copies the project information and the accounting information from the requisition to the purchase order. You do not need to enter any additional project-related information on your purchase order when you use this feature. See: *AutoCreate Documents Overview Oracle Purchasing User's Guide*.

You can change the project information on the purchase order that was copied from the requisition; the project information on the requisition is not updated.

Entering Purchase Orders

If your company does not use online requisitions or the AutoCreate feature, you can enter project-related information directly on your standard purchase orders using the Purchase Orders window in Purchasing. When you use this window, you specify project-related information in the Project tabbed region of the distribution line. The account information will automatically be created by the Account Generator, based on the project-related information you enter. See: *Overview of Purchase Orders Oracle Purchasing User's Guide*.

Entering Releases

You enter project-related releases against blanket purchase agreements and planned purchase orders using the Enter Releases window in Oracle Purchasing. When you use this window, you specify if the release distribution line is project-related. If it is project-related, you continue to enter project information for the line. See: *Entering Release Headers Oracle Purchasing User's Guide*.

Recording Receipts and Delivery

You can track receipt and delivery of goods for project-related purchase orders using the Receipts window in Oracle Purchasing. You can report the delivery of purchased goods in your commitment reporting.

Purchased goods must be both received and delivered to be reported against your project as delivered. Oracle Purchasing does not record the received goods as delivered for your project until the goods are delivered and assigned to a purchase order distribution line. See: *Overview Receipts Oracle Purchasing User's Guide*.

Entering Default Project–Related Information

You can enter default project–related information for requisitions and purchase orders.

► **To enter default project information for requisitions and purchase orders:**

1. In Purchasing, open either the Requisitions or Purchase Orders window.
2. Select the Tools menu option at the top of the window and choose Preferences.
3. Open the Project Information tabbed region and enter default project information to be used to create requisition and purchase order distribution lines during the current session.
4. Save.

Oracle Payables

When you match an invoice to a purchase order in Oracle Payables, the project information from the purchase order is copied to the invoice. When you enter new project–related invoices in Oracle Payables, you only need to enter project information on the source document, the invoice. If you use distribution sets with project information, Oracle Payables automatically supplies project information for your supplier invoice distribution lines.

Matching Invoices

If you use Oracle Purchasing and have already associated project–related information to a purchase order, and you are matching an invoice to a purchase order using the Invoices windows instead of manually creating invoice distribution lines, Oracle Payables automatically copies the project information from the purchase order to the invoice.

You cannot change the project information that is copied from the purchase order to the invoice.

Entering Invoices

You can enter project-related invoices directly in the Invoices windows in Oracle Payables. You can enter project-related information in the Invoice Summary folder which will default to all distributions you enter for the invoice. These values can be overridden. You also enter project-related information in the Distribution Summary window. You can create a folder with project-related fields to be used for entering information. An invoice can have both project-related and non-project-related distribution lines. See: *Entering Standard Invoices Oracle Payables User's Guide*.

Using Distribution Sets

You can define distribution sets to make it easier to enter invoices. Use the Distribution Sets window to specify project information for the distribution set lines. You can use project-related distribution sets for recurring costs for any project class (contract, indirect, and capital). See: *Distribution Sets Oracle Payables User's Guide*.

When you enter invoices, you can enter a distribution set. You can use distribution sets to create project-related invoices in the following Oracle Payables forms:

- Invoices
- Recurring Invoices

Posting Invoices

After you process invoices according to your business policies, you approve them in Oracle Payables, and interface the invoice information to Oracle General Ledger interface tables. You use the Payables Transfer to General Ledger process in the Submit Request window in Payables to interface invoices to General Ledger.

In General Ledger, you post the invoice interfaced data to update your account balances. See: *Posting Journal Batches Oracle General Ledger User's Guide*.

Entering Default Project–Related Information

You can enter default project–related information for Payables.

► To enter default project information for a single supplier invoices:

1. In Payables, open the Invoices window located under Invoices, Entry.
2. Enter default project information to be used to create the distribution lines for the invoice.
3. Save and continue entering the invoice information.



Suggestion: Create project–oriented folders at the invoice and invoice distribution line level to make it easier and faster to enter project related information for your invoices.

► To enter default project information in supplier invoice distribution sets:

1. In Payables, open the Distribution Sets window located under Setup, Invoice.
2. For project–related distribution lines, check the Project Related box. This will open the Project Information window.
3. Enter default project information to be used to create the distribution line, then select OK to close the window.
4. Save.

You can review and change project information in the distribution set by selecting the Project Information button at the bottom of the window.

Interfacing Supplier Invoices from Payables

To load invoices from Oracle Payables to Oracle Projects, use the PRC: Interface Supplier Invoices from Payables process in Oracle Projects.

The process first retrieves all eligible posted, project–related supplier invoices (including non–recoverable tax amounts) from Oracle Payables. Then the process interfaces the amounts to Oracle Projects. The process creates an expenditure for each invoice, and a cost distributed expenditure item and a cost distribution line for each invoice distribution line.

The Interface Supplier Invoices from Payables process uses the project and task information to determine if the items are billable, capitalizable, or both. You can accrue revenue and invoice billable items in Oracle Projects.

Each time you run Interface Supplier Invoices from Payables, Oracle Projects prints reports you can use to track the interfaced supplier invoices distribution lines, as well as those invoice lines which are rejected during interface from Oracle Payables.

See Also

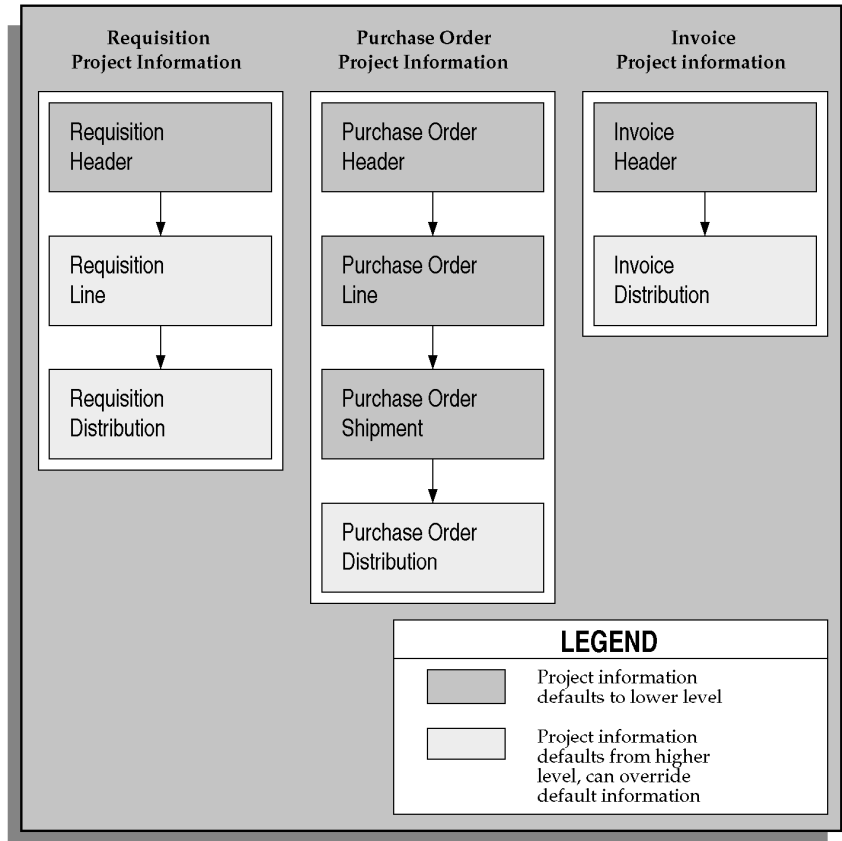
Interface Supplier Invoices from Payables: page 11 – 55

Partially Recoverable Tax *Oracle Payables User's Guide*

Entering Project-Related Information

You enter project information at the distribution line level for project-related requisitions and purchase orders in Oracle Purchasing, and for project-related supplier invoices in Oracle Payables.

Figure 13 – 6 Enterring Project–Related Information



Default Project Information

You can specify default project information at the header level for requisitions, purchase orders, and supplier invoices; this information defaults to the document's distribution lines. For purchase orders, you can also specify default project information at the purchase order line and purchase order shipment levels.

The default project information for requisitions and purchase orders are session defaults which are lost when you exit the entry forms. The default project information for invoices is stored with the invoice and is retained when you requery the invoice.

Project-Related Information

When you enter requisitions, purchase orders, and supplier invoices in Oracle Purchasing or Oracle Payables, and have Oracle Projects installed, you specify the following project-related information:

The **Project Number** segment is the project number incurring the charge from the requisition, purchase order, or invoice.

The **Task Number** is the lowest level task incurring the charge from the requisition, purchase order, or invoice.

The **Expenditure Type** is an expenditure type classified with an expenditure type class of Supplier Invoices.

The **Expenditure Organization** is the organization that is ordering or has ordered the goods or services, which may be different from the project owning organization.

This organization defaults to the organization you specify in the profile option PA: Default Expenditure Organization in AP/PO. This profile option provides a default value for the expenditure organization segment each time you create project information in Oracle Payables or Oracle Purchasing. You can choose from any expenditure organization that has an HR Classification as your default value. Your system administrator can configure this default profile at the site, application, responsibility, and user levels; each user can also specify their own personal value for this profile.

The **Expenditure Item Date** is the date that you expect to incur the expense for the goods or services that you are requesting for a requisition or purchase order, or the date that you incur the charge for an invoice. This date is used during online validation against project transaction controls, and becomes the expenditure item date on the expenditure item in Oracle Projects. This date defaults to the current date each time you create a new Accounting Flexfield combination.

The **Quantity** is the quantity of goods or services that you are charged for. You can only enter data in this field in Oracle Payables, as this field is applicable for invoice distributions only.

This value is required if you have defined the expenditure type with Cost Rate Required set to Yes. For expenditure types that require a cost rate, the quantity on the invoice distribution becomes the quantity in the expenditure item and a cost rate is calculated as the amount divided by the quantity when Oracle Projects interfaces the invoice distribution and creates an expenditure item in Oracle Projects.

For other expenditure types that do not require a cost rate, the quantity in the invoice distribution is not copied to the expenditure item; instead the amount of the line is copied as the quantity and the amount on the expenditure item.

Entering Project-Related Fields by Document

You do not need to enter information for each project field for all documents in Oracle Purchasing and Oracle Payables. For example, you do not need to enter information for expenditure item date and quantity if you are entering invoice distribution sets.

The following table specifies the project information that you enter for each document in Oracle Purchasing and Oracle Payables.

Document	Location	Fields
Oracle Purchasing		
Requisition	– Requisition Level (default only) – Requisition Distribution Line Level	– Project – Task – Expenditure Type – Expenditure Organization – Expenditure Item Date
Purchase Order	– Purchase Order Level (default only) – Purchase Order Line Level (default only) – Purchase Order Shipment Level (default only) – Purchase Order Distribution Line level	
Release	– Release Distribution Line Level	
Oracle Payables		
Invoice	– Invoice Level (default only) – Invoice Distribution Line Level	– Project – Task – Expenditure Type – Expenditure Organization – Expenditure Item Date – Quantity (not at invoice level)
Distribution Set	– Distribution Set Line Level	

Table 13 – 1 (Page 1 of 1) Entering Project-Related Segments by Document

Requisition, Purchase Order, and Release

You do not enter the quantity for documents in Oracle Purchasing because you do not know the quantity for which you will be invoiced.

Oracle Payables automatically sets the quantity field to the quantity invoiced of the invoice distribution line when you match an invoice to a purchase order.

Invoice

You can enter all of the project fields for an invoice line. The quantity field is optional if the expenditure type does not require a quantity.

Distribution Set

You do not enter the Expenditure Item Date in the distribution set lines you create in Oracle Payables because you use the distribution sets for an indefinite period of time. When you use the distribution set to create an invoice, Oracle Payables sets the expenditure item date of the invoice distributions to the invoice date of the invoice.

Validating Purchase Orders, Requisitions, and Invoices

When you enter project information and either leave or save the record, the information is validated against the project transaction control information in Oracle Projects. This validation ensures that you can charge the type of expenditure to the project and task on the expenditure item date that you specified. If the information that you entered does not pass the project transaction control validation, you will see an error message displayed on the bottom line of the screen. You must enter valid chargeable project information based on the transaction controls in Oracle Projects before you can continue.

If you cannot determine valid project information that is chargeable, you can delete the project-related fields and close the window. You should then determine valid project information and return to the document to enter the project information.

Validation of Distribution Set Project Information

When you create a distribution set in Oracle Payables, the project information for a distribution set line is not validated against the project transaction controls information in Oracle Projects, because you do not enter an expenditure item date which is required for transaction control validation.

Usually, distribution sets are used on recurring transactions, and the associated project does not have transaction controls. The only validation Oracle Projects performs on a distribution set is at the time you create the distribution set lines. Oracle Projects validate the project and task number.

See Also

Transaction Controls: page 4 – 62

Accounting Transactions Created by the Account Generator

Oracle Purchasing and Oracle Payables use the Account Generator to determine the GL account number for each project-related distribution line based on the project information that you enter.

Oracle Purchasing builds the account number for the charge, accrual, and variance distribution accounts based on the Account Generator assignments that you define during implementation. You can define your Account Generator processes so that project-related requisitions and purchase orders use project-related information in the Account Generator assignments and non-project-related documents use the Account Generator assignments predefined by Oracle Purchasing.

If you are using Encumbrance Accounting, you can also define assignments for the budget account based on project information.

Oracle Payables builds the expense account number for project-related invoices using assignments that you define during implementation. You must enter the account number for non-project-related invoices. Oracle Payables determines the liability account for all invoices based on the liability account defaults provided by Oracle Payables.

You can control whether users can override the account number determined by the Account Generator for project-related distributions using the profile option PA: Allow Override of PA Distributions in AP/PO.

For example, you may want only the Purchasing Manager and Payables Manager to have the ability to override the project-related distributions. In this example, you set the profile to No at the Site level and to Yes for the Payables Manager and Purchasing Manager responsibilities.

See Also

Using the Account Generator in Oracle Projects: page 17 – 302

Commitment Reporting

You can report the *total* costs of a project by reporting the committed costs along with the actual costs. Committed costs are the uninvoiced, outstanding requisitions and purchase orders charged to a project.

Total Project Costs = (Committed Costs + Actual Costs)

You can report the flow of committed costs, including associated non-recoverable tax amounts, through Oracle Purchasing and Oracle Payables. These committed costs can include:

- Open requisitions (approved, unpurchased requisitions)
- Open purchase orders (approved, uninvoiced purchase orders)
- Pending invoices (supplier invoices not yet interfaced to Oracle Projects to be included in project costs)

You can report summary committed cost amounts for your projects and tasks, and can also review detail requisitions and purchase orders that backup the summary amounts.

See Also

Project Summary Amounts: page 9 – 11

Implementing Commitments from External Systems: page 18 – 29

Example of Commitment Reporting

Study the following example to understand the flow of committed costs through Oracle Purchasing, Oracle Payables, and Oracle Projects.

Assume that you define committed costs as the total of these three buckets:

**Committed Costs =
(Open Requisitions + Open Purchase Orders + Pending Invoices)**

You use requisitions, purchase orders, and receipt and delivery in Oracle Purchasing. You track the delivery of purchase orders to better manage your project progress and schedule.

The following table provides examples of the charges that are incurred as you record transactions. The table analyses the effect of various

actions, such as receiving an invoice for purchased goods, on committed costs and the total costs charged to a project. Descriptions of each action follows the table.

Example of Commitment Reporting								
Action	Open Req	Ordered POs	Delivered POs	Open POs	Pending Invoices	Total Committed Costs *	Actual Costs	Total Project Costs **
Enter Requisition	1000					1000		1000
Create PO from Req	200	800		800		1000		1000
Receive Goods	200	800	500	800		1000		1000
Receive Invoice	200	800	500	300	500	1000		1000
Enter non-PO Invoice	200	800	500	300	600	1100		1100
Interface Invoices	200	800	500	300	0	500	600	1100
Close PO	200	0	0	0	0	200	600	800
Close Requisition	0	0	0	0	0	0	600	600
Charge labor to Project	0	0	0	0	0	0	5600	5600
Charge Blanket PO	0	400	0	400	0	400	5600	6000
* Total Committed Costs = Open Requisitions + Open Purchase Orders + Pending Invoices								
** Total Project Costs = Total Committed Costs + Actual Costs								

Table 13 – 2 (Page 1 of 1)

Enter requisition

You enter and approve a requisition totalling \$1000, with two lines of \$800 and \$200.

The requisition amount is included in the Open Requisitions and the Total Committed Costs amounts.

Create purchase order from requisition

You create a purchase order for the first line of the requisition, totalling \$800. You approve the purchase order.

The Open Requisition amount decreases by \$800 and the Ordered Purchase Order and Open Purchase Order amounts increase by \$800. The total committed costs remain the same.

Receive delivery of purchased goods

The supplier delivers \$500 of the \$800 of goods that you ordered.

The Delivered Purchase Order amount increases by \$500. The Open Requisition, Ordered Purchase Order, Open Purchase Order, and Total Committed Costs amounts do not change.

Receive invoice for delivered goods

You are invoiced for the \$500 of goods that you received. The Payables department matches the invoice to the purchase order.

The Open Purchase Order amount decreases by \$500, and the Pending Invoice amount increases by \$500. The Total Committed Costs amount does not change. The Ordered Purchase Order amount does not change.

Enter supplier invoice not associated to purchase order

You receive another invoice for \$100 that is not associated to a purchase order. The Payables department enters the invoice.

Both the Pending Invoice amount and the Total Committed Cost amounts increase by \$100. The Total Project Cost also increases because the Total Committed Costs amount increases.

Interface invoices to Oracle Projects

The Payables department approves and posts all invoices to Oracle General Ledger, and then interfaces the supplier invoices to Oracle Projects. The invoice costs totalling \$600 are now recorded against your project in Oracle Projects.

The Pending Invoice amount, along with the Total Committed Costs amount decreases by \$600. The Actual Costs amount increases by \$600. The Total Project Costs amount does not change.

Close purchase order

You close the purchase order that has \$300 remaining, because you do not expect any more activity against that purchase order. The purchase order is no longer reported in your committed costs.

Closed purchased orders are not reported in the commitment reporting, so all of the Purchase Order amounts are reduced for the purchase order closed. The Total Committed Costs amount, and in turn, the Total Project Cost amount, decreases by \$300, which was the Open Purchase Order amount for the purchase order closed.

Close requisition

You close the requisition for \$200 because you no longer need the goods requested. The requisition is no longer reported in your committed costs.

Closed requisitions are not reported in the commitment reporting, so Open Requisition amount decreases by \$200 for the requisition that you close. The Total Committed Costs amount, along with the Total Project Costs, also decreases by \$200.

Charge labor costs to project

Employees working on your project record time to your project, which totals \$5000.

The Actual Costs amount increases by \$5000. The Total Project Costs amount also increases.

Enter release against blanket purchase agreement

You need to order supplies for your project. You create a \$400 release against a blanket purchase agreement that your company has negotiated with a supplier.

The Ordered Purchase Order and Open Purchase Order amounts increase by \$400. In turn, the Total Committed Costs and Total Project Costs also increase.

Adjustments

You can adjust project-related documents in Oracle Purchasing, Oracle Payables, and Oracle Projects. You can perform an adjustment under specific conditions; your adjustments have different effects depending on the process flow.

Requisition Adjustments

You can update project information on a requisition. If the requisition is included on a purchase order before you update the project information, the purchase order is not updated with the new project information. If the requisition line is included on a new purchase order after you change the project information, Oracle Purchasing copies the new project information to the new purchase order.

The Account Generator builds a new account number value when you change the project information. The new project information is used in commitment reporting.

Purchase Order Adjustments

You can update project information on a purchase order, even after it is approved and invoiced. If the purchase order is invoiced before you update the project information, the invoice is not updated with the new project information. If the purchase order line is invoiced on a new invoice after you change the project information, Oracle Payables copies the new project information to the new invoice.

The Account Generator builds a new account number when you change the project information. The new project information is used in commitment reporting.

Supplier Invoice Adjustments in Payables

You can perform supplier invoice adjustments in Oracle Payables at any stage in the process flow.

Adjusting project information for matched invoices

If you have matched an invoice to a purchase order, you cannot directly change any of the project information copied from the purchase order. You may encounter cases in which you want to change the project information; in particular, you may want to change the expenditure item date that was copied from the purchase order, because the expenditure item date on the purchase order was not maintained.

If you want to change the project information in this case, there are two ways of making the change.

You can reverse the matching distribution line from the purchase order in the Distributions Summary window in Oracle Payables, change the purchase order project information in Oracle Purchasing, and match the invoice to the purchase order again. See: *Adjusting Invoice Distributions Oracle Payables User's Guide*.

You can also create two adjusting invoice distributions on the original invoice which net to zero, but have different project information. This is a generally a simpler way to correct the project information. Using either the Invoices or Distributions windows in Oracle Payables, you first enter a negative distribution line with the same project information as on the incorrect invoice distribution line. You then enter a positive distribution line with the correct project information. The two lines that you entered net to zero, but record the correction to the project information, without having to match to the purchase order again.

Adjusting manually entered, unposted invoices

You can directly change any or all of the project information before an invoice is posted. The Account Generator derives a new account number based on the new project information that you enter.

Adjusting manually entered, posted invoices

You cannot directly change any project information on a posted invoice. You must reverse the distribution line and create a new distribution line with the new project information using the Distributions Summary window in Oracle Payables. See: *Adjusting Invoice Distributions Oracle Payables User's Guide*.

Interfacing adjusting lines to Oracle Projects

If the original invoice distribution line that was reversed was not yet interfaced to Oracle Projects, the Interface Supplier Invoices from Payables process does not interface the original or reversing items, that are included on the same invoice, to Oracle Projects. These items are marked as net zero adjustment lines that are not to be interfaced to Oracle Projects. The new line with the correct project information is interfaced to Oracle Projects.

If the original invoice distribution line that was reversed was interfaced to Oracle Projects before the adjustment, the Interface Supplier Invoices from Payables process interfaces the reversing and new invoice adjustment lines that you created to correctly maintain project costs in Oracle Projects.

Supplier Invoice Adjustments in Oracle Projects

You perform the following adjustments for supplier invoices in Oracle Projects:

- Transfer between projects/tasks
- Split expenditure item
- Reclassify item as billable or non-billable
- Reclassify item as capitalizable or non-capitalizable
- Edit comment
- Hold or release from billing

Project users can perform these adjustments in Oracle Projects because the actions do not change the amount of the invoice which is processed

in Oracle Payables. These adjustment actions change the project information of the supplier invoice item, which is used in Oracle Projects processing.

After you have made adjustments to supplier invoice items, you must send the adjustment information back to Oracle Payables so the payables distribution lines match what is recorded in Oracle Projects. Oracle Payables will interface adjustments that affect the GL account number to Oracle General Ledger. You run the following processes in Oracle Projects for supplier invoice adjustments:

- PRC: Distribute Supplier Invoice Adjustment Costs
- PRC: Interface Supplier Invoice Adjustment Costs to Payables

If you need to change the invoice amount, supplier, or expenditure type, organization, or item date for a supplier invoice line, reverse the line and create a new in Oracle Payables. See: Adjusting Project Information for Matched Invoices: page 13 – 56.

See Also

Adjustments to Supplier Invoices: page 4 – 44

Restrictions to Supplier Invoice Adjustments

Adjustments to supplier invoices in Oracle Projects must adhere to the business rules imposed by Oracle Payables. When Projects is integrated with Payables, you cannot adjust supplier invoices (either in Oracle Projects or in Oracle Payables) if the invoice is:

- Cancelled

When you cancel an invoice in Payables, reversing distribution lines are created for each distribution line, and the invoice amount is set to zero. The invoice status is set to Cancelled, and its distribution lines are posted to GL the next time the Transfer to General Ledger program is run in Payables. When an invoice has a status of Cancelled, it cannot be adjusted.

- Paid, if any of the following conditions apply:
 - The Payables setup option "Allow Adjustments to Paid Invoices" is disabled

Payables provides a system-level control to prevent users from adjusting paid invoices. If you want to allow adjustments to paid invoices, enable the "Allow Adjustments to Paid Invoices" setup option.

- You are using the Prorate Expense or Prorate Tax discount distribution method

Payables does not allow adjustments to paid invoices if a prorated discount distribution method is used.

- You are using cash basis accounting
- You are using automatic offsets in Payables

If you enable the Automatic Offsets feature in Payables, you cannot enable the Allow Adjustments to Paid Invoices setup option in Payables.

- Prepaid, either fully or partially
- Selected for payment

You cannot adjust an invoice selected for payment until the Confirm Payment Batch action has been performed.

Integrating with Oracle Receivables

Oracle Projects fully integrates with Oracle Receivables to process your invoices and track customer payments. Oracle Projects generates draft invoices and uses Oracle Receivables features to create invoices and interface the accounting transactions to Oracle General Ledger.

When you interface invoices to Receivables, you use an Oracle Projects process which collects all eligible released draft invoices in Oracle Projects and interfaces them to Oracle Receivables interface tables. This process also maintains project balances of unbilled receivables and unearned revenue and creates accounting transactions for these amounts.

Once interfaced to these interface tables, the draft invoices await further processing by Oracle Receivables AutoInvoice process. After you run the AutoInvoice program to create invoices in Receivables, you tieback successfully interfaced invoices as well as rejected invoices using another Oracle Projects process. Rejected invoices are corrected, and interfaced again to Receivables.

You can use standard Oracle Projects reports to track your invoices as you interface data between Oracle Projects and Receivables. You can also use AutoInvoice output reports to review imported transaction data and transaction data that fails when you run AutoInvoice.

For information pertaining to performing an action on a project invoice, such as generating, cancelling, crediting, or writing off an invoice; and tracking customer payments on an invoice, see: *Invoicing a Project*: page 8 – 48.

See Also

Determining Your Invoice Printing Method: page 17 – 153

Implementing Oracle Receivables for Oracle Projects Integration: page 18 – 55

Importing Invoice Information into Oracle Receivables Applications Using AutoInvoice *Oracle Financials and Oracle Public Sector Financials Implementation Manual*

Data that Oracle Projects Predefines

Oracle Projects predefines most of the information that AutoInvoice needs to create your customer invoices in Oracle Receivables, such as an invoice batch source, transaction types for your invoices and credit memos, as well as other information.

Invoice Batch Source

An invoice batch source indicates the source of an invoice that you interface to Oracle Receivables. An invoice batch source also determines how AutoInvoice processes an invoice.

The batch source controls your invoice batch numbering sequence, supplies transactions with a default transaction type and grouping rule, and indicates which calculation and validation options you want AutoInvoice to use. All Oracle Projects transactions use the same Oracle Receivables batch source. Oracle Projects predefines a batch source of PROJECTS INVOICES.



Warning: Do not modify the invoice batch source that is predefined and used by Oracle Projects.

Invoice Transaction Types

An invoice transaction type tells AutoInvoice how to process an invoice transaction. A transaction type determines whether a transaction:

- Generates an open receivables balance
- Posts to your general ledger
- Is printed

Oracle Projects creates standard invoices with an invoice transaction type. An invoice credit memo transaction type reduces the amount outstanding on the original invoice by the amount of the credit and reverses the appropriate general ledger transactions.

Oracle Projects predefines two invoice transaction types for the processing of invoices:

- Projects Invoice – creates an open receivable, posts to the general ledger, and is printed
- Projects Credit Memo – corresponds to the invoice transaction type for processing credit memos and writeoffs; creates an open receivable, posts to the general ledger, and is not printed by default.

You use the Oracle Receivables Transaction Types form to define additional transaction types. See: Define Transaction Types for Invoice Processing: page 18 – 57.



Warning: Do not modify transaction types that are predefined and used by Oracle Projects.

Line Ordering Rules

Line ordering rules tell AutoInvoice how to order Oracle Projects invoice lines on an invoice. Oracle Projects predefines an invoice line ordering rule named *Projects Line Order* that uses the following attributes:

- Project Manager
- Line Number
- Line Type (Standard or Tax)



Warning: Do not modify the line ordering rule that is predefined and used by Oracle Projects.

Line Grouping Rules

Line grouping rules tell AutoInvoice how to group Oracle Projects invoice lines into an invoice. Each grouping rule is associated with the batch source that you use for your invoicing.

Oracle Projects predefines a grouping rule named *Projects Grouping Rule* that uses the following attributes:

- Project Number
- Draft Invoice Number
- Agreement Number
- Project Organization



Warning: Do not modify the line grouping rule that is predefined and used by Oracle Projects.

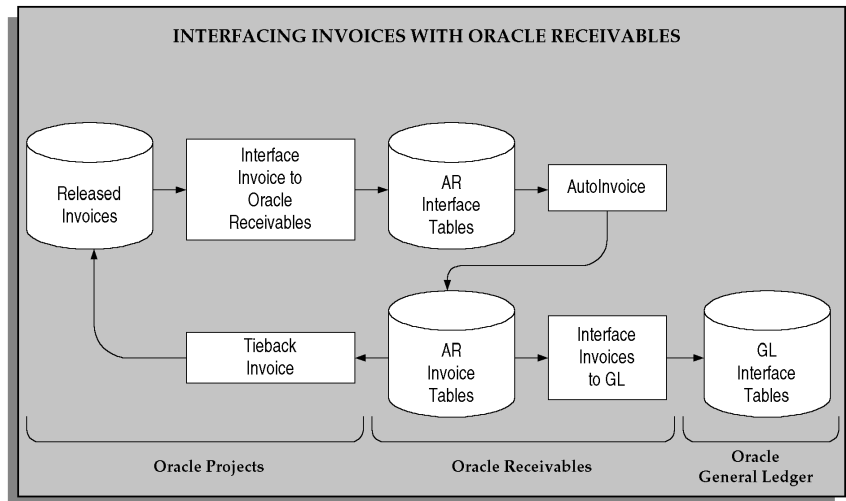
Credit Memo Reason QuickCodes

Oracle Projects predefines two QuickCodes to process credit memos and writeoffs. Oracle Receivables predefines the Credit Memo *Reason* QuickCode Type under which Oracle Projects predefines two credit memo reason QuickCodes:

- Projects Write Off

- Projects Credit Memo

Figure 13 – 7



You can interface released invoices and invoice lines from Oracle Projects to Receivables whenever you are ready and as many times during an accounting period as you wish.

Submitting Processes

We recommend that you interface invoices to Oracle Receivables using Oracle Projects streamline processes. When you use a streamline process, you submit one request that interfaces invoices to Oracle Receivables, runs AutoInvoice, and ties back invoices to Oracle Projects. The streamline process submits each process sequentially. We discuss each of these processes in the pages that follow.

You use the following streamline options to interface invoices with Oracle Receivables:

- XI: Interface Draft Invoice to AR
- XRXI: Interface Draft Revenue to GL and Draft Invoice to AR

You submit a streamline process by requesting the PRC: Submit Interface Streamline Process in the Submit Request window.

If you need to perform an individual function (such as interfacing invoices), you can use an individual process.

See Also

Submitting Requests: page 10 – 2

Processes: page 11 – 1

Interface Invoices to Receivables

When you interface invoices and invoice lines to Receivables, Oracle Projects places invoice information into Receivables interface tables.

GL Date

The GL Date of the invoice determines the accounting period in which it affects your general ledger account. Oracle Projects determines the GL Date as the end date of the open or future GL period in which the invoice date falls as defined in Oracle Receivables, when you interface an invoice.

See: Date Processing in Oracle Projects: page 15 – 3

Accounting Transactions

When you interface invoices to Oracle Receivables, Oracle Projects uses AutoAccounting to determine several receivables accounts for each invoice. For details about these accounts, see: Accounting for Revenue and Invoices: page 17 – 295.

The accounting transactions that the process creates are interfaced to Oracle Receivables interface tables. Oracle Projects does not use Oracle Receivables AutoAccounting to determine account codings except for tax transactions for taxable invoice lines. If an invoice line has tax information, Oracle Receivables AutoAccounting determines the tax account. See: Accounting Transactions: page 15 – 16

Interfacing the Agreement Number to Receivables

When invoice lines are interfaced to Receivables, the Agreement Number from Projects is copied to the PURCHASE_ORDER column and the INTERFACE_LINE_ATTRIBUTE3 column of the RA_INTERFACE_LINES_ALL table. Receivables copies this value to the PURCHASE_ORDER column in the customer transaction table, RA_CUSTOMER_TRX_ALL.

If the invoice being interfaced is a cancelled invoice, credit memo, or write off, these columns are populated by a null value.

Output Reports

Each time you interface invoices to Oracle Receivables, Oracle Projects prints output reports (Account Receivables Interface Report and Account Receivables Interface Exception Report) which allow you to track your successfully interfaced invoices, as well as those invoices which fail to interface. You should correct any exceptions in Oracle Projects and resubmit the process to successfully import rejected invoices. See: Interface Invoices to Receivables: page 11 – 48

AutoInvoice

Oracle Receivables AutoInvoice feature takes the interface invoice line information stored in Receivables interface tables, validates it, and converts the interface data into invoices and credit memos and writeoffs in Oracle Receivables.

AutoInvoice creates an invoice batch for each group of invoice records. For each invoice in a batch, AutoInvoice creates an invoice header. For each header in a invoice batch, AutoInvoice creates an invoice line and distribution line that corresponds to the invoice line records you interfaced from Oracle Projects to Receivables.

You can run AutoInvoice from Oracle Receivables or from one of the Oracle Projects streamline options. If you run AutoInvoice from Oracle Receivables, you can specify a value of PROJECTS INVOICES (for customer invoices) or PA INTERNAL INVOICES (for intercompany or inter-project invoices) for the invoice source to process.

Each time you run AutoInvoice, Oracle Receivables prints output reports which allow you to track each invoice created by AutoInvoice, as well as exceptions that AutoInvoice encounters during the import process.

See Also

Run AutoInvoice *Oracle Receivables Reference Manual*

AutoInvoice Processing Report *Oracle Receivables Reference Manual*

AutoInvoice Validation Report *Oracle Receivables Reference Manual*

Tieback Invoices from Receivables

You run the Tieback process to ensure that your project accounting invoice data loaded successfully into Oracle Receivables. For successfully interfaced invoices loaded into Oracle Receivables, the tieback process updates your project accounting data to reconcile invoices in Oracle Projects to Oracle Receivables. Rejected invoices are purged from the Oracle Receivable interface tables. The Invoice Status in Oracle Projects is updated so you can correct them and interface them again to Oracle Receivables.

Each time you tieback invoices from Oracle Receivables, Oracle Projects prints output reports which allow you to track your successfully interfaced invoices, as well as those invoices which fail to interface. You should correct any rejected invoices in Oracle Projects and interface them again to Oracle Receivables.

The Tieback process automatically loads all successfully interfaced intercompany and inter-project invoices into the interface table of the receiver operating unit's Oracle Payables system with an invoice source of Projects Intercompany Invoices or Inter-Project Invoices, respectively.

See Also

Tieback Invoices from Receivables: page 11 – 69

Interfacing Invoices to Oracle General Ledger

After AutoInvoice creates invoices, you interface your invoice accounting information to Oracle General Ledger interface tables. You use the Run General Ledger interface process in Oracle Receivables to send invoice transactions to Oracle General Ledger.

In General Ledger, you post the invoice interface data to update your account balances.

See Also

Run General Ledger Interface *Oracle Receivables Reference Manual*

Automatic Tax Calculation

When invoices from Oracle Projects are processed, AutoInvoice automatically calculates tax for invoice lines that have tax information. (Oracle Projects uses Oracle Receivables AutoAccounting for tax accounting only; Oracle Projects uses its own AutoAccounting for all other accounting transactions.)

See Also

Applying Tax to Project Invoices: page 18 – 66

Reporting

Oracle Projects provides you with reports that display information that help you to track your invoices as you interface data between Oracle Projects and Receivables.

Invoice Flow Detail

You can use the Invoice Flow Detail report to review the flow of project invoices through Oracle Projects. This report groups invoices by

invoice status, which allows you to quickly identify where your draft invoices currently are in the invoice processing flow.

Invoice Flow Summary

You can use the Invoice Flow Summary report to review summary flow information about project invoices by project organization and project member. You can use this report to quickly identify how many invoices are in each stage of the invoice processing flow and the invoice amounts involved.

See Also

Invoice Flow Detail and Invoice Flow Summary: page 10 – 33

Viewing Invoices in Oracle Receivables

Once invoices have been interfaced from Oracle Projects to Receivables, you can query receivables information by project-related query data. Project information in Receivables is located in the Transaction Flexfield and Reference field. The following fields in Receivables hold project-related data:

Oracle Receivables Field Name	Oracle Projects Data
Transaction Number	Invoice Number
Source	Either the predefined Projects Invoices source, or sources you have defined
Batch	Concatenation of source and processing request ID; for example, Projects Invoices_1614
Transaction Type	Either the predefined Projects Invoices and Projects Credit Memo or the transaction types you have defined
Transaction Flexfield Value 1 / Reference Number	Project Number
Transaction Flexfield Value 2	Draft Invoice number from Oracle Projects

Table 13 – 3 (Page 1 of 2)

Oracle Receivables Field Name	Oracle Projects Data
Transaction Flexfield Value 3/ PO Number	Agreement Number
Transaction Flexfield Value 4	Project Organization
Transaction Flexfield Value 5/ Salesperson	Project Manager

Table 13 – 3 (Page 2 of 2)

The following table lists where project–related information is located in Oracle Receivables.

Oracle Receivables Window Name	Project–Related Information
Batches Summary	Folder includes Source, which can be queried for project batches by entering, for example, PROJECTS INVOICES
Find Batches	Find by Source
Transaction	Number Reference Source Salesperson (Main tabbed region) PO Number (More tabbed region)
Lines	Lines displayed under Main tabbed region match Invoice Lines in Oracle Projects Invoice Review. Reference field under More tabbed region corresponds to Project Number.
Line Transaction Flexfield	Data displayed includes: Project Number Draft Invoice Number Agreement Number Project Organization Project Manager Line Number
Transaction Summary	Folder includes: Transaction Flexfields 1–5 Transaction Number Source Batch Transaction Type

Table 13 – 4 (Page 1 of 2)

Oracle Receivables Window Name	Project-Related Information
Find Transactions	Main tabbed region includes: Transaction Numbers = Invoice Numbers Reference Numbers = Project Numbers PO Numbers = Agreement Numbers Sources = PROJECTS INVOICES Batches = PROJECTS INVOICES
Credit Memo	Source Reference Transaction Flexfield
Copy Transactions	Source Transaction Number Reference Number Type
Transaction Overview	Find and Transaction Overview includes: Source PO Number Type Reference Salesperson

Table 13 – 4 (Page 2 of 2)

AR Merge

If you are merging customers in Receivables, the customer reference on agreements and project customers are merged in Oracle Projects. Similarly, if you merge customer addresses in Receivables, the address references on project customers and tasks in Oracle Projects are updated.

If after you have merged customers in Receivables, you reprint an invoice generated by Oracle Projects, that is, the original invoice was billed before the merge, the new customer information will print on the reprinted invoice.

After you merge the customers, when you query invoice information in Oracle Projects for the remaining customer after the merge you will see all invoices for the merged customer. For example, the customer for Project A is XYZ Corp and the customer for Project B is XYZ Corporation. Project A has invoices totaling \$3,500 and Project B has invoices totaling \$10,100. In Receivables, you merge the two customers into one customer: XYZ Corporation. The customer associated with

the agreement for Project A and the customer on Project A are automatically updated to XYZ Corporation. When you query in Oracle Projects Invoice Review for all invoices for XYZ Corporation, all invoices for both Project A and Project B will be displayed for a total of \$13,600.

See Also

Merge Customers *Oracle Receivables User's Guide*

Integrating with Oracle Assets

Oracle Projects integrates with Oracle Assets, allowing you to manage capital projects in Oracle Projects and update your fixed assets records when assets are ready to be placed in service. In a capital project, you can collect construction-in-process (CIP) and expensed costs for each asset you are building. Oracle Projects collects labor, expenses, usages, miscellaneous transactions, and supplier invoice costs, and using a combination of AutoAccounting and Workflow, assigns the costs either to a CIP or an expense account.

When you are ready to place the asset in service, you use Oracle Projects processes to collect all eligible CIP cost distribution lines, summarize them, and create asset lines. You can review and make changes to the asset lines before interfacing them to Oracle Assets. When you are satisfied that the asset lines are correct, you use Oracle Projects processes to interface the costs for the completed asset to the Oracle Assets Mass Additions table.

After you interface the costs to the Oracle Assets Mass Additions table, you can make changes to the asset definition, if necessary, and then run the Post Mass Additions process. This program creates the asset records in Oracle Assets. When you run the Create Journal Entries process in Oracle Assets, journal entries will be created and sent to Oracle General Ledger to relieve the CIP account and transfer the amount to the appropriate asset cost account.

There is currently no interface between Oracle Assets and Oracle Projects which allows you to post depreciation expenses directly to projects.

Implementing Oracle Assets

You need to implement Oracle Assets before you can create asset lines for your CIP projects if you plan to interface assets to Oracle Assets. The following information is used by Oracle Projects to validate your asset definition:

- Corporate Book
- Category FlexField
- Location FlexField
- Automatic Asset Numbering
- Accounting FlexField

You may elect to interface asset costs without the category, location, depreciation expense account or asset number defined. You will then be required to add this information after the asset is posted to the mass additions table in Oracle Assets. However, you cannot create asset lines for an asset until it has a corporate book assigned to it. Whether a complete asset definition is required before interfacing the asset to Oracle Assets is determined by the Project Type setup in Oracle Projects.

There are no additional implementation requirements in either Oracle Assets or Oracle Projects to interface asset costs from Oracle Projects to Oracle Assets.

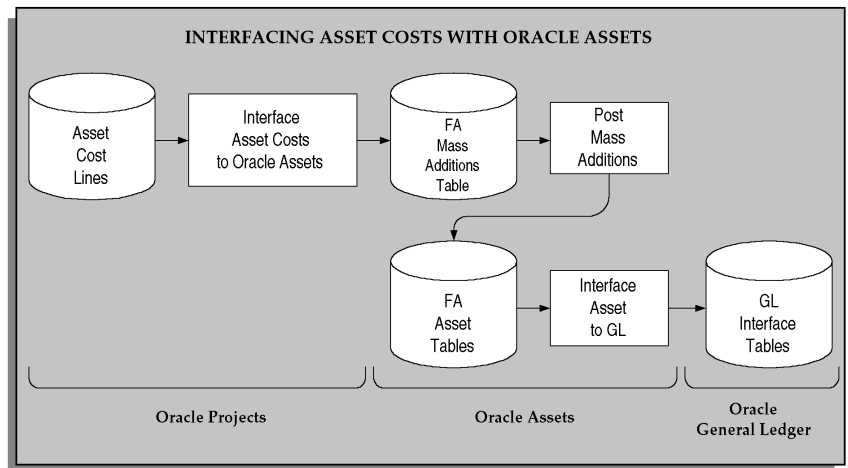
When Oracle Assets is not installed

When Oracle Assets is not installed, the capital projects forms disables the following fields:

- Location
- Category
- Book
- Depreciation Expense Account

Interfacing Assets to Oracle Assets

Figure 13 – 8



You can interface asset costs from Oracle Projects to Oracle Assets whenever you are ready and as many times during an accounting period as you wish.

Submitting Processes

When you are ready to place your CIP assets in service, you can interface the asset costs to Oracle Assets. You interface asset cost lines by running the Oracle Projects process PRC: Interface Assets. You can run this process whenever you are ready and as many times during an accounting period as you want. You can run the process for a single project or for a range of projects. You can choose to interface costs for assets that are placed in service as of a date you specify in the processing parameters.

Prerequisites

- Interface and tie back labor, usage, and miscellaneous transaction costs to Oracle General Ledger by running the appropriate streamline process in Oracle Projects.
- Interface expense report and supplier invoice costs to Oracle General Ledger by running the Payables Transfer to General Ledger process in Oracle Payables.
- If you are interfacing burdened asset costs to Oracle Assets, Interface Burden Costs to Oracle General Ledger) by running the appropriate streamline process in Oracle Projects.
- Post all asset costs previously interfaced to the FA Mass Additions table by running the Post Mass Additions process in Oracle Assets.
- Assign the asset an appropriate in service date in the Capital Projects Workbench.
- Run the Generate Asset Lines process in Oracle Projects to create asset cost lines.

Accounting Transactions

Each asset cost line sent to Oracle Assets from Oracle Projects includes the CCID (code combination ID) for the account number charged for the CIP costs.

Fremont Corporation charges \$100 of supplies to a capital project to build a new research lab in Sacramento.

- The supplies are costed to account 01.100.1531.
- When the asset is placed in service and interfaced to Oracle Assets, account 01.100.1531 is relieved of \$100 in costs.
- The \$100 is charged to the appropriate asset cost account based on the asset category of the new asset.

Output Reports

Each time you run the Interface Assets process, Oracle Projects prints output reports which allow you to track you successfully interfaced assets, as well as those assets which failed to interface.

See Also

Sending Asset Lines to Oracle Assets: page 7 – 29

Mass Additions

Successfully interfaced asset cost lines from Oracle Projects are written to the Mass Additions table. These source system for all these costs is Oracle Projects. You can use the Prepare Mass Additions window to review the interfaced assets. You can use all the normal functionality of Oracle Assets for assets that originate in Oracle Projects. You can perform the following operations on assets within Mass Additions:

- Split assets with more than 1 units into multiple assets.
- Add the new asset to an existing asset in Oracle Assets.
- Merge 2 or more new asset records into a single asset .
- Change the asset information defined in Oracle Projects; for example, asset category, asset key, or asset location.

Asset records created by Oracle Projects will have one of the following queue statuses:

- POST – A new asset from Oracle Projects with all required fields populated. The records for this asset can be posted to the FA tables.

- **NEW** – A new asset from Oracle Projects which needs to have required fields manually populated before it can be posted to the FA tables.
- **MERGED** – The individual summarized cost lines created in Oracle Projects. These records are merged into a single asset record in Oracle Assets. You do not make changes to the merged records.
- **COST ADJUSTMENT** – New costs for a previously interfaced asset. These costs can be either positive or negative. You can make changes to certain fields on cost adjustments, as allowed by Oracle Assets.

When you have completed making changes to the asset records in Mass Additions, run the Post Mass Additions process in Oracle Assets. Records that have been successfully posted to FA tables will have a queue status of *posted*.

See Also

Sending Asset Lines to Oracle Assets: page 7 – 29

Viewing Capital Project Assets in Oracle Assets

Once capitalized assets have been interfaced from Oracle Projects to Oracle Assets, you can locate the assets by project and task. You can also drill down to the underlying expenditure items that support the asset costs from within Oracle Assets.

The following table lists where project-related information is located in Oracle Assets.

Menu Item	Window Name	Project–Related Information
Prepare Mass Additions	Find Mass Additions	Find criteria include Project / Task fields
	Mass Additions Summary	Folder includes Project / Task fields
	Mass Additions (select <i>Open</i> from Mass Additions Summary window)	• Source tabbed region includes Project / Task fields • Window includes Project Details button to drill down to Lines Details folder in Oracle Projects
	Find Assets (select <i>Add to Asset</i> from Mass Additions Summary window)	Find by Source Line tabbed region includes Project / Task fields
	Merge Mass Additions (select <i>Merge</i> from Mass Additions Summary window)	Lines folder includes Project / Task fields
Asset Workbench	Find Assets	Find by Source Line tabbed region includes Project / Task fields
	View Source Lines (select <i>Source Lines</i> from Assets window)	• Cost tabbed region includes Project / Task fields • Window includes Project Details button to drill down to Lines Details folder in Oracle Projects
Financial Information Inquiry	Find Assets	Find by Source Line tabbed region includes Project / Task fields
	View Source Lines (select <i>Source Lines</i> from Assets window)	• Folder includes Project / Task fields • Window includes Project Details button to drill down to Lines Details folder in Oracle Projects

Adjustments

You can make changes in Oracle Assets to the asset information and cost amounts for assets interfaced from Oracle Projects. However, any changes made in Oracle Assets will not be reflected in Oracle Projects.

You cannot change the Project or Task information associated with assets interfaced from Oracle Projects.

Cost Adjustments

You can adjust an asset's cost after you have interfaced the asset to Oracle Assets. For example, expense reports or supplier invoices may be processed after you have placed the asset in service which are part of the asset's costs. You process these costs the same as you normally do. Generate new asset lines for the costs by running the Generate Asset Lines process in Oracle Projects. These new asset lines will be interfaced to Oracle Assets as cost adjustments.

See Also

Adjusting Assets After Interface: page 7 – 31

Integrating with Oracle Human Resources

Oracle Projects fully integrates with Oracle Human Resources to keep track of employees and information relevant to them, such as bill rates and mailing address. If you have installed Oracle Human Resources, you must use an Oracle Human Resources responsibility to define employees. Otherwise, you enter this information directly into Oracle Projects and other Oracle Applications that integrate with it (Payables, Receivables, and Purchasing).

This section describes how to use Oracle Project to add or delete an employee or change an employee's name, and delete an employee. Unless otherwise noted, perform each step within Oracle Projects from the window indicated in parentheses. For navigator paths for each window, see: .

Adding an Employee

► **To Add an Employee:**

1. Define the employee and enter the employee organization and job assignment (Enter Person). See: Employees and Employee Assignments: page 17 – 51. Optionally give the employee assignments for:
 - billing title, if using billing titles in invoice formats
 - location, if using with Payables or Purchasing
2. You can enter either the employee's home or work address (Enter Person). Oracle Projects reads this value when interfacing expense reports to Payables. If you enter a home address, you must define the employee's primary home address.
3. Enter the employee's cost rate (Employee Cost Rates).
4. Add the employee's bill rate to any employee-based bill rate schedules (Bill Rate Schedules).
5. Add the employee to any resource lists that use employees (Resource Lists).
6. Using the System Administrator responsibility, define the employee's Applications Object Library (AOL) username. Assign the appropriate responsibilities to the employee (System Administrator: Navigate Security User Define).
7. In Purchasing, optionally define the employee as a buyer for use with Purchasing (Purchasing: Setup Personnel Buyers).

8. In Receivables, optionally define the employee as a salesperson, if the employee is a project manager or you want to transfer credit receivers from Oracle Projects to Receivables (Receivables: Set Up Transactions Salespersons).

The first 30 characters of the employee's full name must match the first 30 characters of the salesperson's name, since Oracle Projects compares these values when interfacing to Receivables.

Changing an Employee's Name

In addition to changing an employee's name in the Person window, complete the following steps.

► To Change an Employee's Name:

1. In Oracle Projects, update the resource list alias for the employee in all applicable resource lists (Resource Lists).
2. In Receivables, update the salesperson name for the employee, if applicable (Receivables: Set Up Transactions Salespersons).

Terminating an Employee

In addition to terminating an employee in the Person window, complete the following steps:

► To Terminate an Employee:

1. Remove / disable the employee from all applicable resource lists (Resource Lists).
2. Using the System Administrator responsibility, disable the employee's AOL username (System Administrator: Navigate Security User Define).
3. In Purchasing, delete / disable the employee from the list of buyers (Purchasing: Setup Personnel Buyers).
4. In Receivables, delete / disable the employee from the list of salespeople (Receivables: Set Up Transactions Salespersons).

See Also

Employee and Employee Assignments: page 17 – 51

Enter Person *Oracle Human Resources Documentation Set*

Integrating with Oracle Project Manufacturing

Oracle Project Manufacturing is a solution for companies that manufacture products using projects or contracts. Oracle Project Manufacturing combines three major applications:

- Oracle Projects, which provides the project costing, project billing, and project budgeting functions.
- Oracle Manufacturing
- Third-party project planning and scheduling systems (project management systems)

When used as a part of the Project Manufacturing functionality, Oracle Projects acts as a cost repository for manufacturing-related activities from other products in the Project Manufacturing suite.

The incorporation of Oracle Projects in the Project Manufacturing suite allows you to:

- Set up the WBS for a manufacturing project in Oracle Projects. All manufacturing costs are then tracked by project and task, and are imported to Oracle Projects using the Transaction Import process.
- Track projects and tasks defined in Oracle Projects throughout various manufacturing applications.
- Charge project costs from inventory and work in process to a project and task.
- Include project costs from manufacturing and distribution in your budget to actual cost analysis in Oracle Projects.

Importing Project Manufacturing Costs

When costs are incurred in Oracle Manufacturing that are related to a project, the Cost Collector process in Oracle Cost Management passes those costs to Oracle Projects. The Cost Collector finds all costed transactions in Manufacturing that have a project reference and passes the referenced transaction costs to the correct project, task, and expenditure type in Oracle Projects. Oracle Projects imports the costs using the Transaction Import process.

Suggestion: If you integrate with Oracle Manufacturing, use function security to prevent users from entering pre-approved

batch items with an expenditure type class of Inventory or Work in Process.

Adjusting Project Manufacturing Transactions

Transactions that are imported into Oracle Projects from Oracle Project Manufacturing cannot be adjusted in Oracle Projects. They must be adjusted in Oracle Project Manufacturing.

See Also

Overview of Transaction Import: page 14 – 11

Loading Project Manufacturing Costs: page 14 – 19

Transaction Import: page 11 – 74

Integrating with Oracle Inventory

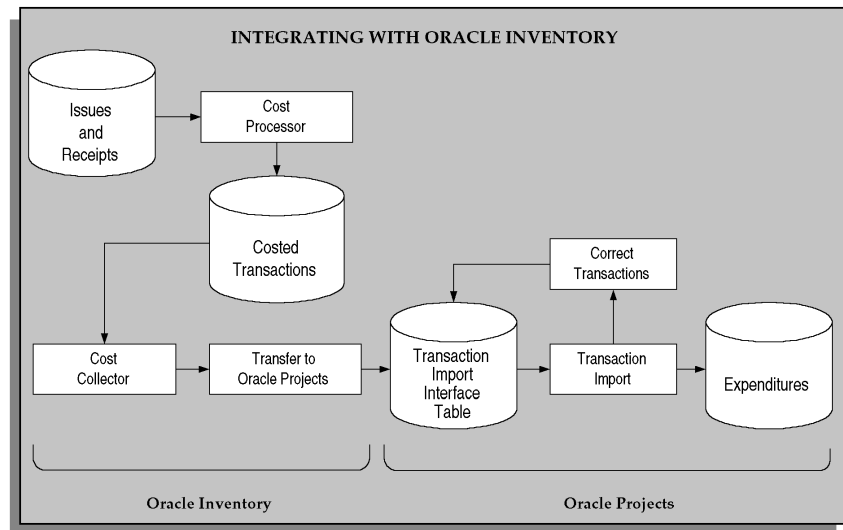
Oracle Projects fully integrates with Oracle Inventory to allow you to enter inventory transactions in Inventory and transfer them to Oracle Projects. You can order and receive items into inventory before assigning them to a project. You can then assign the items to a project as they are taken out of or received into Oracle Inventory.

When you enter project-related transactions in Oracle Inventory, you enter the project information on the source transaction. Oracle Inventory and Oracle Projects carry the project information through from the Issue To or Receipt From transaction in Oracle Inventory to the project expenditure in Oracle Projects.

Suggestion: If you integrate with Oracle Inventory, use function security to prevent users from entering pre-approved batch items with an expenditure type class of Inventory or Work in Process.

Figure 13 – 9 illustrates the flow of project-related inventory transactions in a non-manufacturing environment.

Figure 13 – 9



The transactions are imported into to Oracle Projects as accounted and costed. The cost distribution cannot be modified in Oracle Projects.

For information about transferring transactions from Oracle Inventory to Oracle General Ledger, please refer to the *Oracle Inventory User's Guide*.

Miscellaneous Transactions

You enter project-related transactions using the Miscellaneous Transactions window in Inventory. You enter the following project-related information:

- Inventory Organization
- Expenditure Item Date as the Transaction Date
- Project
- Task
- Expenditure Type (optional)

To understand whether you need to enter the expenditure type, see: Oracle Inventory Profile Options (*Oracle Inventory User's Guide*).

- Organization

See Also

Performing Miscellaneous Transactions (*Oracle Inventory User's Guide*)

Transaction Types (*Oracle Inventory User's Guide*)

Costing

The next step in moving inventory transactions to Oracle Projects is to run the Cost Collector in Inventory. The Cost Collector is a batch job that you run using Standard Report Submission. After you run the Cost Collector, transactions are eligible for import from Inventory to Oracle Projects. The total Inventory Cost becomes the Raw Cost in Oracle Projects.

Project Cost Transfers

Inventory transfers expenditures to Oracle Projects using the Project Cost Transfers window.

- Organization
- Number of Days to Leave Costs Uncollected

The Project Cost Transfers window submits a batch job that transfers the amount and quantities of the inventory transactions to the Oracle Projects Transaction Import Interface table.

Transaction Import

To import the transactions, you submit the PRC: Transaction Import process. The transactions are imported as costed and accounted transactions with the expenditure type class and the transaction source that were defined during implementation.

Review Transaction Import

If transactions are rejected during the Transaction Import process, you can review and correct them using the Review Transactions window. After you correct transactions, you resubmit the Transaction Import process.

See Also

Transaction Import: page 14 – 11

Viewing Rejected Transactions: page 14 – 59

Oracle Inventory User's Guide

Adjust Inventory Transactions

You can adjust inventory transactions as you adjust other expenditure items in Oracle Projects. Because inventory transactions are imported

as costed and accounted, you must set up AutoAccounting rules for costing inventory transactions before processing the adjustments.

See Also

Expenditure Adjustments: page 4 – 26

Oracle Inventory User's Guide

Integrating with Oracle Workflow

Oracle Projects provides the ability to integrate with Oracle Workflow to automate the following processes:

- Project Status Change
- Budget Status Change (Submission and Baseline)

Using the powerful abilities of Oracle Workflow, you can create, view, and modify business processes that determine the project and budget workflows. Workflow automatically routes the project or budget to the appropriate person for approval and notifies the preparer of its current approval status. The approval process updates the project or budget status as approvals are obtained or denied.

You decide which projects or budgets need to be routed through workflow, what is the approval chain, and what business rules must be met before the transaction can be approved.

Project and budget approval can be initiated using the Activity Management Gateway (AMG) or by using the standard product windows.

Oracle Projects provides a default project workflow process and a default budget workflow process. You can modify these processes and create additional processes to accommodate the needs of your business.

Default Workflow Processes

Oracle Projects provides default Workflow processes for project status changes and budget submission and baseline. You may customize the processes or create new processes, using the Oracle Workflow Builder.

If you want to create a new process to meet your company's needs, use the Oracle Workflow Builder to create a new process, or copy the existing default process and change its name before making changes to it.

Customizing Workflow Messages

When you customize a workflow, we recommend that you customize the workflow item processes and the loop counters, but not the messages. Instead of modifying a workflow message, you should create a new message. The reasons are explained below:

- When you create a process definition, Oracle Workflow Builder assigns a new version number to an activity if you make changes to it. It saves the new version of the activity to the database without overwriting older versions of the activity. In Oracle Workflow, activities also have dates of effectivity so that at any time, only one version of the activity is "in effect".

If a process is running, Oracle Workflow uses the version of the activity that was in effect when the process was initiated. It does not switch versions of the activity midway through the process. Since a process itself is an activity, a process definition always remains constant until the process instance completes.

- Oracle Workflow Builder does not maintain version information for objects such as item types, item type attributes, messages, and lookup types. For these objects, their latest definition always applies, so you must consider whether a change to any of these objects is backwards compatible. If the modification affects existing processes, you should create a new object rather than edit the existing object.

See Also

Oracle Workflow Guide

Default Project Workflow Process: page 13 – 93

Default Budget Workflow Process: page 13 – 101

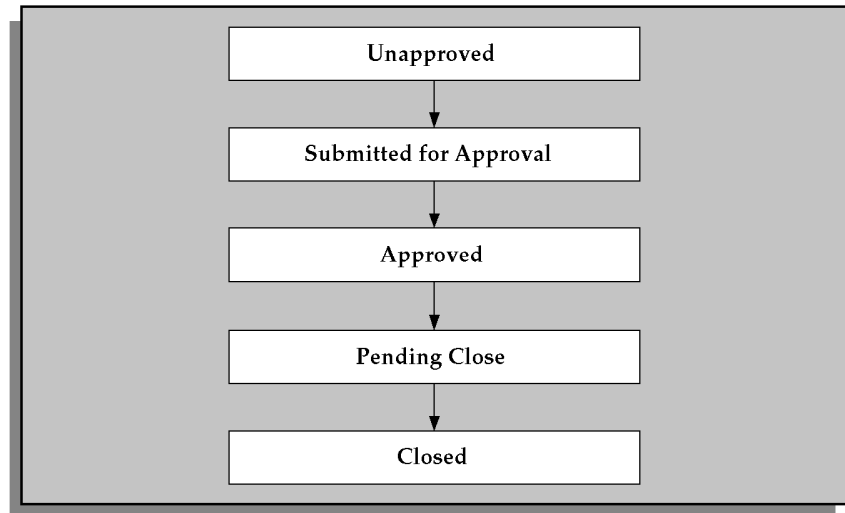
Project Status Change Workflow

When a project status change is integrated with Workflow in Oracle Projects, a project is routed to one or more destinations for approval when a status change is made, if Workflow is enabled for the project status and the project type.

Figure 13 – 10 shows a typical flow of status changes for a project. The names of projects statuses are user-defined, and the statuses you create for your business may be different from those in the example. You may have some projects that require several status changes, while other projects (those with a short duration, for example) may have fewer status changes, and may not require approval. Oracle Projects enables

you to implement the status flow you require for each project, and to use Workflow to automate the approvals and processes involved with each status.

Figure 13 – 10

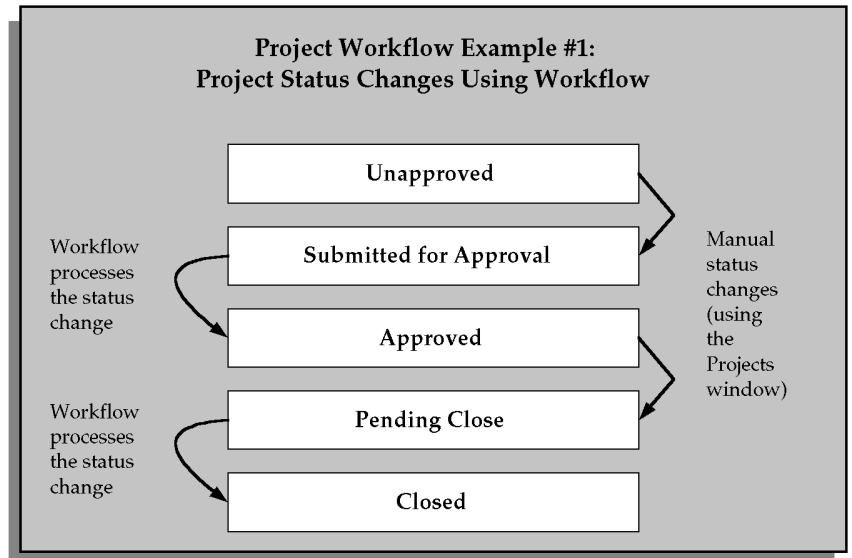


Examples of Project Life Cycles Using Workflow

Figure 13 – 11 shows a project status flow where Workflow is used for two status changes during the life of a project:

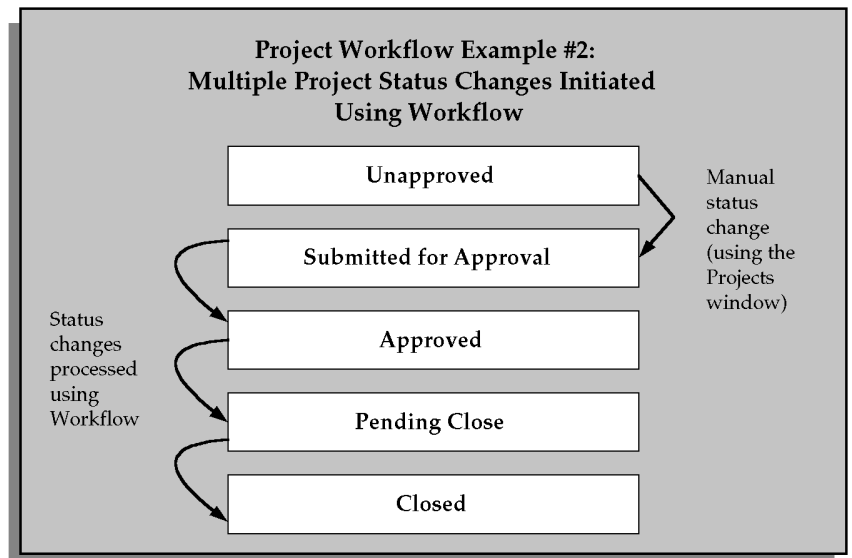
1. A user manually sets the status to *Submitted for Approval*. A Workflow process is initiated. If the Workflow process is successful, the status is updated to *Approved*.
2. A user manually sets the status to *Pending Close*. A workflow process is initiated. If the workflow process is successful, the status is updated to *Closed*.

Figure 13 – 11



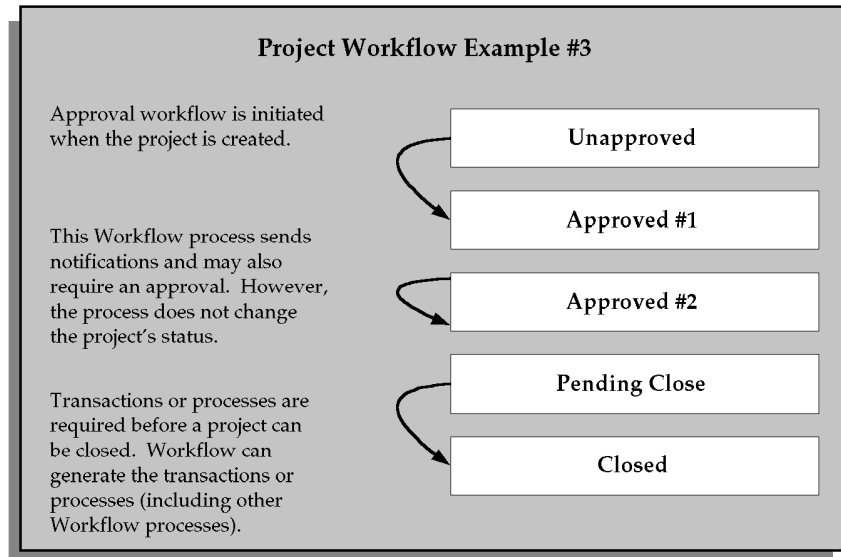
In Figure 13 – 12, Workflow is used for each status change after the project is submitted for approval.

Figure 13 – 12



In Figure 13 – 13, approval workflow is initiated as soon as the project is created. Another workflow process sends notifications when the project status is changed to *Approved #2*. A third workflow process generates transactions and submits processes when the project status is changed to *Pending Close*, and verifies that the processes have completed successfully before changing the status to *Closed*.

Figure 13 – 13



Guidelines for Using the Project Status Change Workflow

Use the following guidelines when you work with the Project Status Change workflow:

1. **Process detail diagram:** Use the diagram of the default project workflow process to guide you in developing the project workflow process for your installation. See Default Project Workflow Process: page 13 – 93.
2. **Customizing the default process:** You can customize the default process, or you can create a new one, using the Oracle Workflow Builder. Use the Project Statuses window to specify the workflow item type that will be used to change a project status. See Project Statuses: page 17 – 183.
3. **Using the default process:** While the default project workflow process can be modified or replaced, customization is not required

for the default process to run without error. See Default Project Workflow Process: page 13 – 93.

4. **Customizing process activities:** If you decide to customize the default project workflow process, you can alter, delete, or move any of the activities to obtain the results you want for your installation.

You can use the project workflow extension and project verification extension to further customize the default process. See Select Project Approver (Node 2): page 13 – 95 and Verify Project Rules (Node 6): page 13 – 95.

Implementing Project Workflow

To use Workflow for project status changes, you must perform the following steps:

- Set up one or more project statuses with the Enable Workflow check box enabled. For each of these project statuses, specify the Success Project Status and Failure Project Status. See: Project Types: page 17 – 196 and Project Statuses: page 17 – 183.
- Set up one or more Project Types with the Use Workflow for Project Status Changes check box enabled. See: Project Types: page 17 – 196.
- Modify the project workflow process to perform the routing, notifications, and process initiations that you require for each status change.
- You can optionally use client extensions to further customize project workflow rules. See: Project Workflow Extension: page 19 – 113.

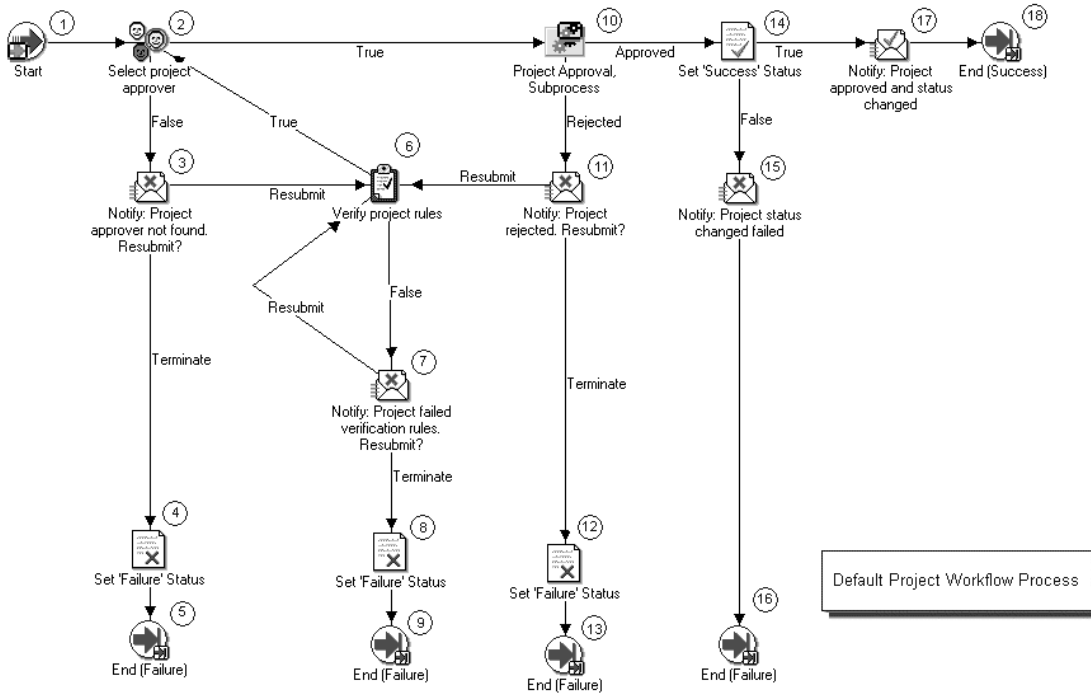
Default Project Workflow Process

Oracle Projects provides a default project workflow process, called PA Project Workflow. The default process routes approval of a project status change to the immediate supervisor of the person who submitted the status change.

The default project workflow process does not need to be modified in order to run without error. You may customize the process or create a new one, using the Oracle Workflow Builder. For more information on how to use the Oracle Workflow Builder, see the *Oracle Workflow Guide*.

The process consists of eighteen activity nodes. In the diagram shown below, the process activity nodes are numbered for reference in the descriptions that follow. The numbered circles are not part of the process diagram.

Figure 13 – 14



Default Project Workflow Activities

Following is a description of each activity in the default project workflow process, listed by function name.

Start (Node 1)

This is a standard activity that marks the start of the process.

Select Project Approver (Node 2)

This activity selects the approver for the project by calling the client extension procedure

pa_client_extn_project_wf.select_project_approver. The approver in the default procedure is the immediate supervisor of the person who submitted the workflow.

This activity has two possible outcomes.

- If a project approver is found, the process branches to Node 10.
- If a project approver is not found, the process branches to Node 3.

Notify Project Approver Not Found (Node 3)

This activity notifies the submitter of the project that no project approver was found. The submitter can optionally resubmit the project or terminate the submission.

- If the project is resubmitted, the process branches to Node 6.
- If the submission is terminated, the process branches to Node 4.

Set Failure Status (Nodes 4, 8, and 12)

This activity sets the project status to the *Failure Status* indicated in the Project Statuses window. The process branches to an End (Failure) node.

End (Failure) (Nodes 5, 9, 13, and 16)

This activity terminates the process and returns the result *Failure*.

Verify Project Rules (Node 6)

This activity verifies that the project satisfies the requirements for approval by calling the client extension procedure

pa_client_extn_proj_status.verify_project_status_change.

- If the verification rules are satisfied, the process branches to Node 2.
- If the verification rules are not satisfied, the process branches to Node 7.

Notify: Project Failed Verification Rules (Node 7)

This activity notifies the submitter that the project failed the verification rules. The submitter may resubmit the project for approval or terminate the submission.

- If the project is resubmitted, the process branches to Node 6.
- If the submission is terminated, the process branches to Node 8.

Project Approval Subprocess (Node 10)

This activity runs the Project Approval Subprocess. See: Project Approval Subprocess: page 13 – 97

- If the Project Approval Subprocess succeeds, the process branches to Node 14.
- If the Project Approval Subprocess fails, the process branches to Node 11.

Notify: Project Rejected (Node 11)

This activity notifies the submitter that the status change for the project was rejected.

- If the submitter chooses to resubmit the project, the process branches to Node 6.
- If the submitter terminates the submission, the process branches to Node 12.

Set Success Status (Node 14)

This activity sets the project status to the *Success Status* indicated in the Project Statuses window.

- If the project status is successfully changed, the process branches to Node 17.
- If the status change is unsuccessful, the process branches to Node 15.

Notify: Project Status Change Failed (Node 15)

This activity notifies the submitter that the project status change failed.

The status change can fail if the project was changed after it was approved, so that it no longer complies with the project verification rules. An Oracle database error can also cause the failure.

Notify: Project Approved and Status Changed (Node 17)

This activity notifies the submitter that the project was approved and the project status was changed.

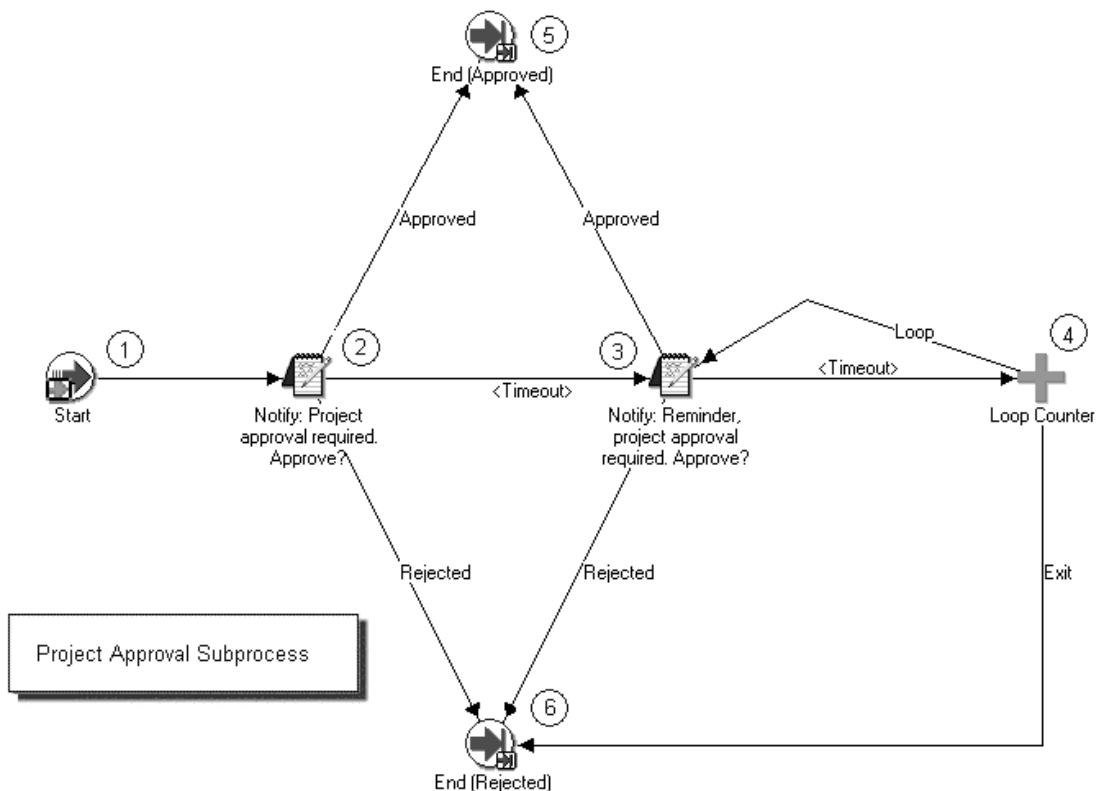
End (Success) (Node 18)

This activity terminates the process and returns the result *Success*.

Project Approval Subprocess

The Project Approval Subprocess is called by the default PA Project Workflow process. In the diagram shown below, the process activity nodes are numbered for reference in the descriptions that follow.

Figure 13 – 15



Following is a description of each activity in the default Project Approval Subprocess.

Start (Node 1)

This is a standard activity that marks the start of the process.

Notify: Project Approval Required (Node 2)

This activity notifies the project approver that approval is required for the project status change.

- If the project approver approves the project, the subprocess branches to Node 5.
- If the project approver rejects the project, the subprocess branches to Node 6.
- If the activity times out, the subprocess branches to Node 3. The default time for the activity to time out is two days. You can use the Oracle Workflow Builder to change the timeout value to suit your business needs.

Notify: Reminder, Project Approval Required (Node 3)

This activity sends a reminder notification to the project approver.

- If the project approver approves the project, the subprocess branches to Node 5.
- If the project approver rejects the project, the subprocess branches to Node 6.
- If the activity times out, the subprocess branches to the Loop Counter (Node 4).

Loop Counter (Node 4)

This activity counts the number of times the subprocess has branched to this node.

- If the count has reached the Loop Limit (a constant that is set in this node), the subprocess branches to Node 6.
- If the count has not reached the Loop Limit, the subprocess returns to Node 3.

The loop counter defaults to a limit of 1. (You can change the default value of the loop counter.)

After the activity reaches the Loop Limit, the process sends one more reminder. If there is no response, the loop counter stops counting and branches to node 6.

End (Approved) (Node 5)

This activity ends the subprocess and returns the result *Approved*.

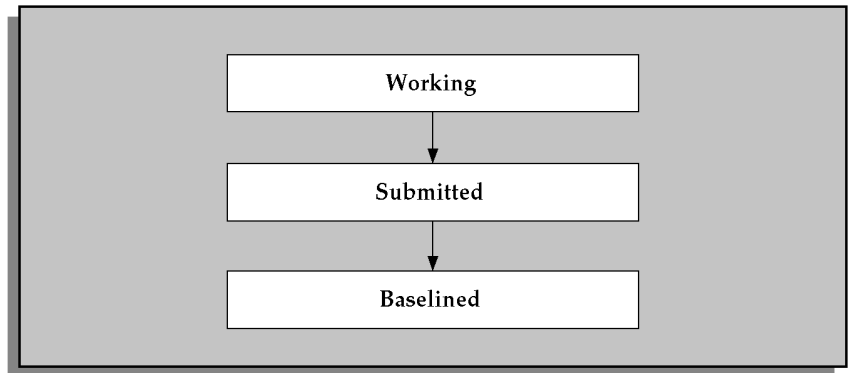
End (Rejected) (Node 6)

This activity ends the subprocess and returns the result *Rejected*.

Budget Workflow

The flow of statuses for budgets in Oracle Projects is controlled by buttons in the Budgets windows. Figure 13 – 16 shows the status flow for budgets.

Figure 13 – 16



When Oracle Projects budgeting is integrated with Workflow, Workflow is initiated for budget approval when you choose the Submit button to submit the budget draft. The budget is routed via Workflow if you defined the budget type to use Workflow. You can further define rules in the budget workflow extension.

Oracle Projects also supplies a budget verification extension. Workflow calls this extension twice: once before it initiates the budget approval process, and again before it changes the budget status. This ensures that the verification rules for the status change are met, even if changes have been made to the budget during the approval process.

See Also

Submitting a Draft: page 3 – 32.

Budget Workflow Extension: page 19 – 119.

Budget Verification Extension: page 19 – 116.

Guidelines for Using the Budget Workflow

Use the following guidelines when you work with the budget workflow:

1. **Process detail diagram:** Use the diagram of the default budget workflow process to guide you in developing the budget workflow process for your installation. See Default Budget Workflow Process: page 13 – 101.
2. **Customizing the default process:** You can customize the default process, or you can create a new one, using the Oracle Workflow Builder. If you create a new workflow, you must use the budget workflow extension to specify the conditions under which each workflow item type will be used for budget approval. See Budget Workflow Extension: page 19 – 119.
3. **Using the default process:** While the default budget workflow process can be modified or replaced, customization is not required for the default process to run without error. See Default Budget Workflow Process: page 13 – 101.
4. **Customizing process activities:** You can alter, delete, or move any of the activities in the default budget workflow process to obtain the results you want for your installation.

You can use the budget workflow extension to further customize the workflow process. See Select Budget Approver (Node 2): page 13 – 102 and Verify Budget Rules (Node 6): page 13 – 102.

Implementing Budget Workflow

To use Workflow for approving project budgets, you need to perform the following steps:

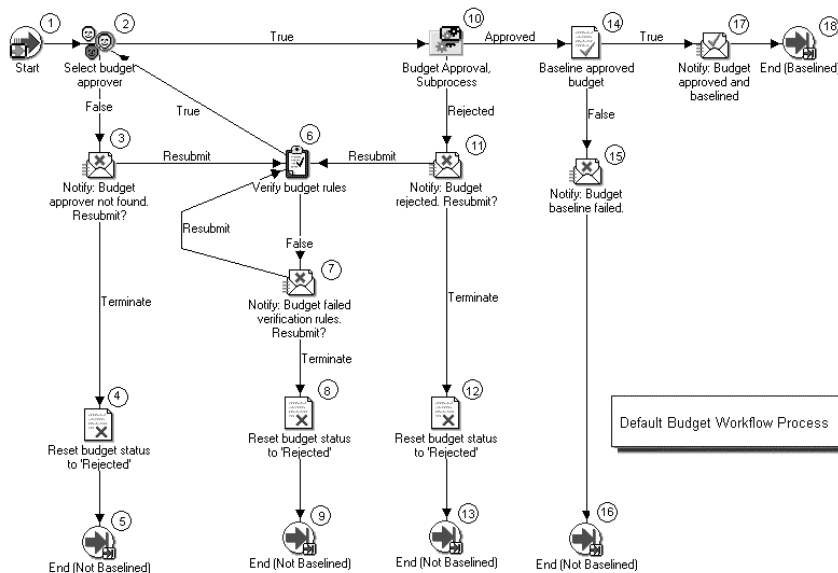
- Set up one or more budget types with the Use Workflow for Budget Status Change check box enabled. See: Budget Types: page 17 – 168.

- Modify the Budget Workflow process to perform the routing, notifications, and /or process initiation that you require for each status change.
- You can optionally use client extensions to further customize budget approval workflow rules. See: Budget Workflow Extension: page 19 – 119.

Default Budget Workflow Process

Oracle Projects provides a default budget workflow process, called PA Budget Workflow. You may customize the process or create a new one, using the Oracle Workflow Builder. For more information on how to use the Oracle Workflow Builder, see the *Oracle Workflow Guide*.

The process consists of eighteen activity nodes. In the diagram shown below, the process activity nodes are numbered for reference in the descriptions that follow. The numbered circles are not part of the process diagram.



Default Budget Workflow Activities

Following is a description of each activity in the default budget workflow process, listed by function name.

Start (Node 1)

This is a standard activity that marks the start of the process.

Select Budget Approver (Node 2)

This activity selects the approver for the budget by calling the client extension procedure **pa_client_extn_budget_wf.select_budget_approver**. The approver in the default procedure is the immediate supervisor of the person who submitted the budget.

This activity has two possible outcomes.

- If a budget approver is found, the process branches to Node 10.
- If a budget approver is not found, the process branches to Node 3.

Notify Budget Approver Not Found (Node 3)

This activity notifies the submitter of the budget that no budget approver was found. The submitter can optionally resubmit the budget or terminate the submission.

- If the budget is resubmitted, the process branches to Node 6.
- If the submission is terminated, the process branches to Node 4.

Reset Budget Status to Rejected (Nodes 4, 8, and 12)

This activity sets the budget status to the *Rejected*. The process branches to an End (Not Baselined) node.

End (Not Baselined) (Nodes 5, 9, 13, and 16)

This activity terminates the process and returns the result *Not Baselined*.

Verify Budget Rules (Node 6)

This activity verifies that the project satisfies the requirements for approval by calling the client extension procedure

pa_client_extn_budget_wf.verify_budget_rules . The default procedure does not include any requirements.

- If the verification rules are satisfied, the process branches to Node 2.
- If the verification rules are not satisfied, the process branches to Node 7.

Notify: Budget Failed Verification Rules (Node 7)

This activity notifies the submitter that the budget failed the verification rules. The submitter may resubmit the budget for approval or terminate the submission.

- If the budget is resubmitted, the process branches to Node 6.
- If the submission is terminated, the process branches to Node 8.

Budget Approval Subprocess (Node 10)

This activity runs the Budget Approval Subprocess. See: Budget Approval Subprocess: page 13 – 104.

- If the Budget Approval Subprocess succeeds, the process branches to Node 14.
- If the Budget Approval Subprocess fails, the process branches to Node 11.

Notify: Budget Rejected (Node 11)

This activity notifies the submitter that the budget was rejected.

- If the submitter chooses to resubmit the budget, the process branches to Node 6.
- If the submitter terminates the submission, the process branches to Node 12.

Baseline Approved Budget (Node 14)

This activity sets the budget status to *Baselined*.

- If the budget baseline is successful, the process branches to Node 17.
- If the budget baseline is unsuccessful, the process branches to Node 15.

Notify: Budget Baseline Failed (Node 15)

This activity notifies the submitter that the budget baseline failed.

The baseline can fail if the budget was changed after it was approved, so that it no longer complies with the budget verification rules. An Oracle database error can also cause the failure.

Notify: Budget Approved and Baselined (Node 17)

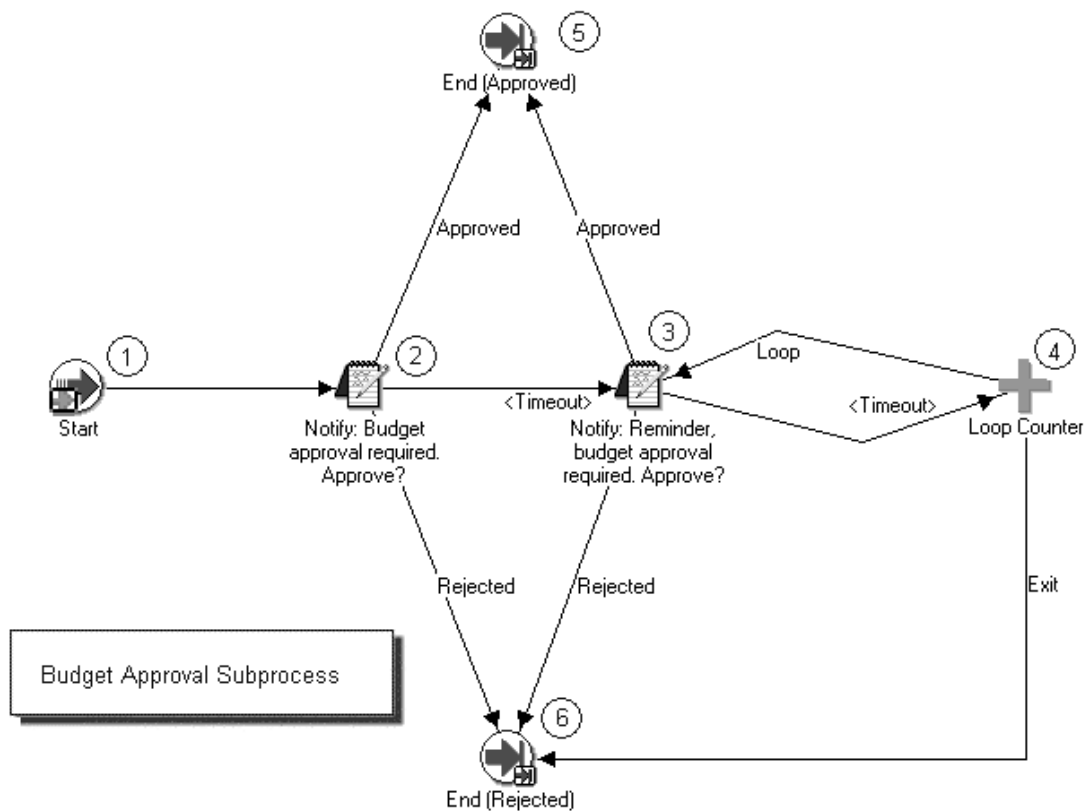
This activity notifies the submitter that the budget was approved and baselined.

End (Baselined) (Node 18)

This activity terminates the process and returns the result *Baselined*.

Budget Approval Subprocess

The Budget Approval Subprocess is called by the default PA Budget Workflow process. In the workflow diagram shown below, the process activity nodes are numbered for reference.



The Budget Approval Subprocess works similarly to the Project Approval Subprocess: page 13 – 97.

See Also

Budget Workflow Extension: page 19 – 119.

Integrating with Cash Management

The Cash Forecasting feature in Oracle Cash Management captures cash flow information from Oracle Projects. It also captures cash flow information from other Oracle applications that store projects–related information (Oracle Purchasing, Oracle Receivables, Oracle Order Management, and Oracle Payables).

By integrating Oracle Projects with Cash Forecasting, you can define and generate a cash forecast for a specific project. You can:

- Project cash flows from Oracle Projects sources throughout your enterprise, and across organizations as needed
- Forecast in any currency, and analyze your project’s currency exposure by forecasting transactions that are entered in a particular currency

The following table describes source types to use for Oracle Projects.

Cash	Source	Source Type	Description
I N F L O W	Receivables and Projects	Customer Invoices	Unpaid customer invoices for a project, and customer invoices in Projects that have been released but have not been interfaced to Receivables.
	Projects	Project Billing Events	Events with invoicing impact that have not been released
		Project Inflow Budgets	Inflow budgets that you enter
	Order Management	Sales Orders	Uninvoiced sales orders for a project
O U T F L O W	Payables	Supplier Invoices	Unpaid Projects–related supplier invoices projected to be paid (supplier and expense reports invoices).
	Payables and Projects	Expense Reports	Uninvoiced expense reports entered in Projects that have been interfaced to Payables, and released expense reports in Projects that have not been interfaced to Payables.
	Projects	Project Transactions	Usages, labor, and miscellaneous transactions
		Project Outflow Budgets	Outflow budgets that you enter

Table 13 – 5 Projects Integration with Cash Forecasting (Page 1 of 1)

See Also

Oracle Projects Integration with Cash Forecasting *Oracle Cash Management User’s Guide*

Integration with Non–Oracle Applications

This chapter describes how Oracle Projects integrates with non–Oracle applications using the Oracle Activity Management Gateway (AMG), Oracle Project Connect for Microsoft Project, and the Oracle Projects Transaction Import program.

The AMG provides application programming interfaces (APIs) that enable you to integrate your project information with non–Oracle applications. For detailed information about the AMG APIs, please refer to the *Oracle Activity Management Gateway Technical Reference Manual*.

Activity Management Gateway

Oracle Projects Activity Management Gateway is not included in the Oracle Projects product. You cannot use any of the features described in this section unless you have purchased and are a licensed user of Oracle Projects Activity Management Gateway.

The Oracle Projects Activity Management Gateway (AMG) is an open interface to Oracle Projects that provides a central source of data. Using the AMG, you can create, update, and delete projects and budgets in external systems; export actuals from Oracle Projects for analysis in your external system; and interface performance measurements, such as percent complete and earned value, to Oracle Projects.

You can use the AMG application programming interfaces (APIs) to integrate Oracle Applications with a wide variety of external systems, including the following:

- Project planning and scheduling systems
- Sales management systems
- Work management systems
- Customer asset management and plant maintenance systems
- Project manufacturing systems
- Collaborative project planning and scheduling systems

Whichever external system you use, the AMG enables you to safely share information using standard Oracle-supported interfaces and exceed the functionality of the individual applications. For detailed technical information about the Activity Management Gateway APIs, refer to the *Oracle Projects Activity Management Gateway Technical Reference Manual*.

Project Management Integration Date Fields

To support integration with external systems, Oracle Projects stores numerous field values that are commonly present in project management systems. Oracle Projects windows do not display these fields, but the information is stored in the Oracle Projects database. These stored fields include the following project and task dates:

- Actual start and finish dates

- Early start and finish dates
- Late start and finish dates
- Scheduled start and finish dates

Activity Management Gateway Controls



Attention: Oracle Projects Activity Management Gateway is not included in, but is additional to, the Oracle Projects product. You cannot use any of the features described in this section unless you have purchased and are a licensed user of Oracle Projects Activity Management Gateway.

The Activity Management Gateway Controls windows enable you to keep information consistent between Oracle Projects and all integrated external systems.

Control Actions Window

Use the Control Actions window to set up controls over data imported to Oracle Projects from an external system. Entering an action in this window prevents users from performing the action in Oracle Projects on a record that originated in the specified external system. The actions available in this window currently include the following:

- Add Task
- Baseline Budget
- Delete Project
- Delete Task
- Update Budget
- Update Project Dates
- Update Project Description
- Update Project Name
- Update Project Number
- Update Project Organization
- Update Project Status
- Update Task Dates
- Update Task Description
- Update Task Name
- Update Task Number
- Update Task Organization

For example, consider the following scenario:

- You have imported a project from an external system.
- You have a business rule that states that project and task dates are always maintained in the external system.
- To ensure data integrity, you want to prevent projects and tasks that originate in the external system from being deleted in Oracle Projects.

To enforce these rules, you would enter the following actions in the Control Actions window for the source product (external system):

- Update Project Dates
- Update Task Dates
- Delete Project
- Delete Task

► **To set up controls for integrated project data:**

1. Navigate to the Control Actions window.
2. Enter or query the source product for which you want to set up controls.
3. For each action that you want to control:
 - Select the action
 - Select the budget type (for budget actions only)
 - Enter effective dates for the control
4. Save your work.

Source Products Window

Use the Source Products window to enter names and descriptions of the external systems you use in conjunction with Oracle Projects, or to modify effective dates for existing source products. If you wish to set up restrictions in the Control Actions window for a product, you must first enter the product as a source product.

Oracle Projects currently integrates with a number of commercial project management systems. As a result, Oracle Projects already contains Source Product records for these systems. To view these records, select Find All from the Query menu in the Source Products window.

► **To enter or modify a source product:**

1. Navigate to the Source Products Lookups window.
2. Enter the following information for the unit.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

Project Connect

Oracle Project Connect is not included in the Oracle Projects product. You cannot use any of the features described in this section unless you have purchased and are a licensed user of both Oracle Projects Activity Management Gateway and Oracle Project Connect.

Oracle Project Connect enables Oracle Applications and Microsoft Project to safely share data and exchange information using the standard AMG APIs. These APIs support the two-way communication of project, task, resource, budget, and actuals information between Oracle Projects and Microsoft Project.

With the integration of Oracle Projects and Microsoft Project, you can:

- Enforce business rules, permission, security, and workflow across system boundaries. For example, sending a new project from Microsoft Project to Oracle Projects triggers an approval workflow. You can use Oracle's central workflow engine for project and budget approvals.
- Download valid class categories and class codes from Oracle Projects so you can classify projects within Microsoft Project.
- Define Oracle Projects key members directly from Microsoft Project. Oracle Projects automatically grants these employees project and function access and update privileges based on their project roles.
- Prepare a cost budget or a forecast budget using Microsoft Project and develop a revenue budget using a separate system.

The implementation requirements for Oracle Project Connect include:

- Oracle Projects Release 10.7, Production 16.1 or higher
- Microsoft Windows 95 or NT Version 4.0
- Microsoft Project Version 4.1 or 4.1a

For detailed instructions about installing and using Oracle Project Connect, refer to the *Oracle Project Connect User's Guide (for Microsoft Project)*.

Overview of Microsoft Project

Microsoft Project is an easy-to-use desktop planning, analysis, and management tool. To help you keep projects on schedule and on budget, Microsoft Project enables you to:

- Create a thorough plan of the work to be accomplished and the resources necessary to complete each task
- Make proactive management decisions by identifying and correcting problems before they impact your budget or schedule

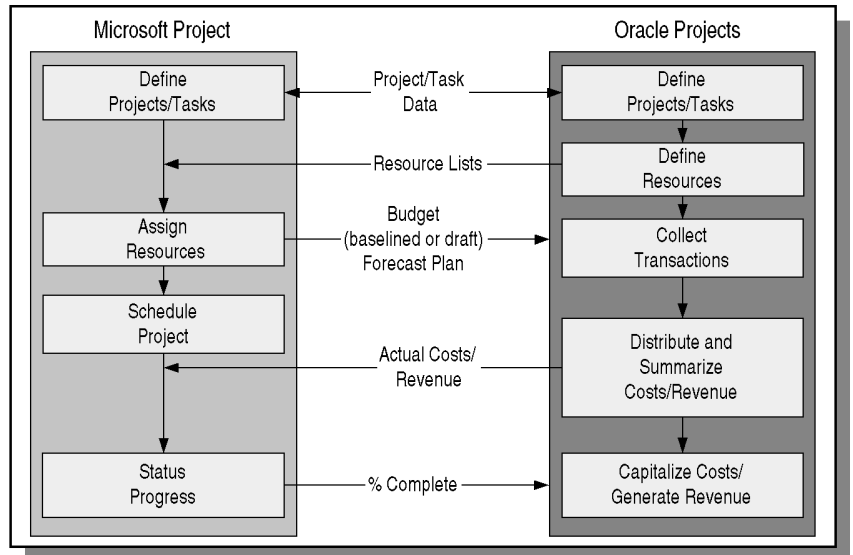
Microsoft Project allows you to visualize complex plans by splitting a project into manageable steps. By studying these steps, you can see in detail the relationships between tasks and which tasks have the greatest impact on your overall schedule, identify potential bottlenecks, and estimate the total project cost.

Where Information Originates

You enter different types of information in either Oracle Projects or Microsoft Project and interface the data to the other application. The figure below illustrates the data flow in this integration. The following paragraphs provide more detail about which types of information originate in each application and their uses.

Figure 14 – 1

Information flow between Microsoft Project and Oracle Projects



Microsoft Project to Oracle Projects

You enter the following information directly in Microsoft Project:

- Project and task definitions
- Budgets
- Percent complete

When initially sending projects from Microsoft Project, you can set preferences to specify how task numbers and names will appear in Oracle Projects. Once your project has been created in Oracle Projects, you can maintain your project and task definitions in Microsoft Project and automatically update them in Oracle Projects. You can even move a task within a project's task structure.

With this integration, you can enter budgeted *quantities* for project resources and calculate budget *amounts* based on the cost rates stored in Oracle Projects. You can rework your budget as necessary and baseline it from within Microsoft Project.

You can also use the latest actuals information to determine percent complete in Microsoft Project and export this information to Oracle Projects for additional project tracking purposes.

Oracle Projects to Microsoft Project

You enter the following information directly in Oracle Projects:

- Project templates
- Resource definitions
- Transactions

In Oracle Projects, you define project templates and types that define specific accounting rules for a project. When sending a project to Oracle Projects, you select a template to serve as the foundation for the new project. Oracle Projects automatically creates a project based on the information received from Microsoft Project. You can load default data into these templates to ensure that your new projects include all the information required by your company policies.

Oracle Projects also stores definitions of labor and non-labor resources and shares this information with Microsoft Project. By sharing resource definitions across your project planning and enterprise business systems, you ensure consistency of information for reporting and analysis throughout your company.

Oracle Projects acts as the central repository for all transaction costs. Once you have collected and distributed these costs, you can send the actual costs, by task or by resource, to Microsoft Project for progress tracking and graphical analysis.

Transaction Import

Transaction Import is an open interface that enables you to load transactions from external cost collection systems into Oracle Projects. Transaction Import creates pre-approved expenditure items from transaction data entered in external cost collection systems. Examples of external cost collection systems are:

- Timecard entry systems
- Expense report entry systems
- Supplier invoice entry systems, such as Oracle Payables
- Electronic data collection systems for asset usage (computer, printer, phone, etc.)
- Payroll systems that calculate complex transactions for benefits, overtime, and other labor charges
- Fixed assets systems that calculate depreciation charged to a project
- Manufacturing systems, such as Inventory and Work in Process

When loading transactions, Transaction Import creates expenditure batches, expenditures, and expenditure items. You can import costed or uncosted, accounted or unaccounted, and adjusted transactions into Oracle Projects.

You can use Transaction Import to import transactions that originate in any currency. The original currency and amount of each transaction is stored if the transaction currency is different from the project and /or functional currency.

This section describes how Transaction Import works. It also discusses how Transaction Import groups transactions to create expenditure batches. We also include information about the types of transactions you can load from external systems. Finally, we discuss how to view, process, and adjust the imported transactions in Oracle Projects.

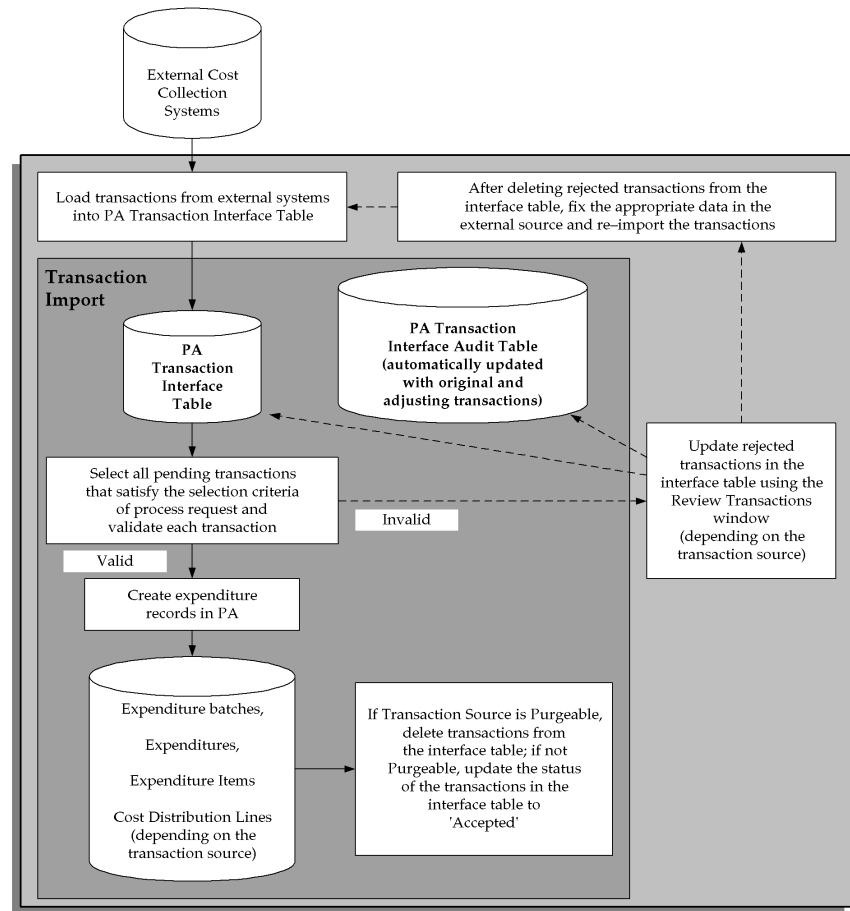
See Also

Transaction Import Interface: page 14 – 33

Expenditure Item Validation: page 4 – 3

Transaction Import Process Diagram

Figure 14 – 2



Using Transaction Import

When you import transaction information from external cost collection systems, Oracle Projects records the transaction details and the source of the imported transactions during transaction import. The PRC:

Transaction Import process (also referred to as Transaction Import) validates the transaction information, reports any exceptions, and creates transactions for all of the valid transactions. Oracle Projects does not import a transaction more than once.

Populating the Interface Table

Transaction Import uses transaction data from your external system to create corresponding transactions in Oracle Projects.

Before you submit the PRC: Transaction Import process, you must populate the Transaction Interface table (PA_TRANSACTION_INTERFACE_ALL) with records that you want to import.

To populate the table, you must write a custom feeder program to convert data into a standard data format that Transaction Import can read. Transaction Import can then convert your imported data into transactions in Oracle Projects.

Writing a Feeder Program

The type of environment from which you want to interface your data determines the type of feeder program you need to write. For example, you can use SQL*Loader, PL/SQL, or Pro*C to write a feeder program to interface transaction data from a non-Oracle system. Or, you can write a conversion program to interface historical data from your previous cost collection system.

Ensure that your transaction flat file has the appropriate information to populate PA_TRANSACTION_INTERFACE_ALL as indicated in the PA_TRANSACTION_INTERFACE_ALL Table Description. If a value is not required for a column, you may leave the column empty. See: PA_TRANSACTION_INTERFACE_ALL Table Description: page 14 – 34

Selecting an Import Utility

SQL*Loader is a powerful and easy-to-use tool that should be able to accommodate all of your import needs. However, depending on the complexity of your import program, you may also want to use Oracle's Pro* language products such as Pro*C, Pro*Cobol and Pro*Fortran to write the program.

Your import utility file must populate PA_TRANSACTION_INTERFACE_ALL as indicated in the previous table description. Also, you should code your file to populate the TRANSACTION_SOURCE

column in PA_TRANSACTION_INTERFACE_ALL with the Transaction Source code exactly as you defined it in the Transaction Sources window.

You must provide any information that the interface table requires that your external system does not provide. For example, if your external timecard system does not provide expenditure types, you must create at least one expenditure type and specify it in your control file.

Transaction Sources

When you submit Transaction Import, you must identify the source of the transactions that you want to import. The source can be any transaction source defined during implementation. You can also use transaction sources predefined by Oracle Projects.

The list of values for the transaction source parameter displays all of the transaction sources in the PA_TRANSACTION_SOURCES table. Any transaction source that has pending records in the Transaction Interface table are marked with an asterisk in the list of values.

Defining Transaction Sources

You define the source of transactions for Transaction Import in the Transaction Sources window. You can define an unlimited number of transaction sources. For each transaction source, you specify options that control how transactions are processed.

Use your import utility to enter this transaction source in the TRANSACTION_SOURCE column of the PA_TRANSACTION_INTERFACE_ALL table. You then select the name in the Submit Request window when you want to import transactions from this source. See: Transaction Sources: page 17 – 95

Importing Transactions

After you populate the interface table, complete the following steps to import external transactions into Oracle Projects:

You use the Submit Request window to run Transaction Import.

► To import transaction data into Oracle Projects:

1. In the Navigator window choose Expenditures > Transaction Import > Import Transactions. Oracle Projects opens the Submit

Request window and enters the PRC: Transaction Import request name.

Alternately, you can navigate to the Submit Requests window and submit the PRC: Transaction Import process.

2. Choose the Transaction Source you want to process. (This field is required.)
3. Optionally identify a specific batch within the transaction source to process.
4. Choose Submit.

Correcting and Resubmitting Transactions

Use the Review Transactions window to review and resubmit rejected transactions or to create and submit new transactions. See: Resolving Import Exceptions: page 14 – 58

Output Reports

Transaction Import has two output reports:

- an exception report, which lists all rejected transactions
- a summary report of successfully imported transactions

See Also

Submitting Requests: page 10 – 2

Transaction Import Interface: page 14 – 33

Transaction Import Report: page 11 – 74

Types of Items That You Can Import

Using Transaction Import, you can import transactions with various expenditure type classes, as listed below.

- Straight Time
- Expense Reports

- Usages
- Inventory
- Work in Process
- Miscellaneous
- Supplier Invoices

You can import the transactions listed above from any transaction source associated with any expenditure type class.

Unmatched Negative Transactions

You can import unmatched negative transactions. These transactions have a negative quantity and cost and do not reverse another transaction. Unmatched negative transactions are generally used for summary-level adjustments or to correct converted transactions.

Oracle Projects does not verify that an original transaction exists for unmatched negative transactions.

Exceptions

Overtime

Transaction Import does not import transactions with an expenditure type class of Overtime. However, you can load overtime from external systems by using an expenditure type class of Straight Time. To properly cost these transactions, you must either ensure that the transactions are loaded as costed, or use the Labor Costing extensions in Oracle Projects to properly calculate the overtime cost amounts.

See Also

Expenditure Type Classes: page 17 – 78

Transaction Sources: page 17 – 95

Loading Items as Costed or Uncosted

You can load uncosted items and costed items. The transaction source associated with the transaction specifies whether a transaction is costed or uncosted. If the Import Raw Cost Amounts option is selected for a transaction source, it indicates that the transactions have already been costed.

Uncosted Items	Items for which only the quantity is provided. Oracle Projects costs these transactions like other transactions based on the cost multiplier and quantity.
Costed Items	Items for which the quantity and transaction currency raw cost are provided. Oracle Projects does not recalculate the transaction currency raw cost of imported costed items.

With Oracle Projects, you can perform burdening and accounting on costed and uncosted items that you load via Transaction Import.

Loading Items as Accounted or Unaccounted

Each transaction source specifies whether items have already been accounted in the external system. Identifying items as accounted or unaccounted affects how Transaction Import processes the items. If the Raw Cost GL Accounted option is selected for a transaction source, it indicates that the transactions are accounted.

Unaccounted Items	Items for which the appropriate GL account has not been determined. When loading unaccounted items, the Transaction Import process calls any transaction control extensions that you have defined. Cost calculation processes (distribute raw and burden costs) determine the cost amount (for uncosted items only) and the GL account to which the cost should be posted.
Accounted Items	Items for which the functional currency raw cost amounts and GL accounts have already been determined and posted to GL by external systems. No processes within Oracle Projects will cost these transactions or transfer them to GL. When loading accounted items, Transaction Import creates cost distribution lines with a status of Received. Transaction Import also creates expenditure items

and expenditures that are identified as accounted. If you import accounted items, you must provide the debit and credit code combination ID. When loading accounted transactions, Transaction Import will not call any extensions, create related items, or allow you to import related items.



Warning: If you import items with both the "GL Accounted" and "Allow Adjustments" options enabled, users will be able to adjust imported transactions that are already GL accounted. You may need to reconcile costs both between Oracle Projects and the external system, and between General Ledger and another general ledger application.

Loading Burden Transactions

You can import burden costs using the Transaction Import process. Depending on the definition of the transaction source, you can control how burden costs are imported and accounted. You can import the burdened costs as either a value on the expenditure item or as separate burden transaction expenditure items. Alternatively, you may choose not to import burden costs and allow Oracle Projects to calculate and store the burden costs as you have defined them in Oracle Projects.

Burden transactions have raw costs and quantities of zero and only burden amounts associated with the transactions. You identify burden transactions by assigning them an expenditure type class of Burden Transaction.

There is no predefined transaction source for burden transactions. You can create a new transaction source with a default expenditure type class of Burden Transaction and then use this transaction source to import burden transactions.

Controlling Import of Burden Transactions

Like the expenditure entry programs, Transaction Import allows burden transactions to be charged to projects that are not set up for burdening — that is, projects on which the associated project type costing information does not have the Burdened option enabled.

You can use Transaction Controls to prevent users from entering or importing burden transactions on a project.

Loading Project Manufacturing Costs

Oracle Projects predefines the following transaction sources to enable you to import manufacturing resource costs from Oracle Manufacturing for the Project Manufacturing integration:

Transaction Source	Default Expenditure Type Class
Work in Process	Work in Process
Inventory	Inventory
Inventory Misc	Inventory

Table 14 – 1 Transaction sources and their default expenditure type classes

If you want to import manufacturing transactions from a non–Oracle manufacturing application, you must define your own transaction source.

Any transaction characterized by one of the transaction source and default expenditure type class combinations represented in the table above constitutes a manufacturing cost. However, you can use these transaction sources with other expenditure type classes. Note the following issues regarding Oracle Project Manufacturing transactions:

- Manufacturing transactions with a transaction source of Inventory or Work In Process are accounted for and interfaced to General Ledger by Oracle Manufacturing. Oracle Projects acts as the repository for these cost amounts but does not perform any accounting functions on them.
- Because they are transferred to Oracle Projects by sub–element (which maps to the expenditure type), multiple manufacturing transactions with a transaction source of either Inventory or Work In Process can use the same original system reference.
- You cannot adjust manufacturing costs in Oracle Projects, since all accounting for the costs is performed in Oracle Manufacturing. Any adjustments to these costs must originate in Oracle Manufacturing.

See Also

Project Manufacturing: page 13 – 82

Loading Foreign Currency Transactions

Transaction Import enables you to import transactions that originate in any currency. This section describes how Transaction Import handles foreign currencies.

Currency Conversion Attributes for Imported Transactions

When transactions are imported that originated in a currency different from the functional currency or project currency, Oracle Projects must convert the transaction amount to those currencies.

To convert foreign currency transactions to the functional and project currencies, Oracle Projects must first determine the exchange rate type and exchange rate date.

To determine conversion attributes for foreign currency transactions imported by Transaction Import, Projects uses the logic shown below.

Each of the attributes is determined separately. That is, if a rate type is found in step one, but no rate date is found at that level, the rate type is used and the logic is followed to the next level to determine the rate date.

Case 1: Functional Currency Equals Project Currency

If the functional currency of the operating unit that incurred the cost (the expenditure operating unit) is equal to the functional currency of the operating unit that owns the project to which the cost is charged (the project operating unit), the following logic is used to determine the currency conversion attributes used in converting the transaction amounts from the transaction currency:

First, the functional currency attributes are determined as follows:

1. If user-entered conversion attribute is included in the transaction, that attribute is used for the conversion.
2. If user-entered attribute is not included in the transaction, the system looks for a default attribute for the task to which the transaction is charged.
3. If default conversion attribute does not exist for task, the system uses the default conversion attribute for the project to which the transaction is charged.
4. If there are no defaults entered at the project or task level, the default attribute is the attribute entered in the implementation options for the expenditure operating unit.

These attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the functional currency. Since the functional currency is equal to the project currency, the project currency amount is equal to the functional currency amount.

This logic is illustrated in Table 14 – 2.

Functional Currency Rate Type and Rate Date	Project Currency Rate Type and Rate Date
The following hierarchy is used: 1. User-entered value 2. Default value from the lowest task 3. Default value from the project 4. Default value from the expenditure operating unit's implementation options	The functional currency attributes are used.

Table 14 – 2 Functional currency equals project currency (Page 1 of 1)

Case 2: Functional Currency Does Not Equal Project Currency

If the functional currency for the transaction is not equal to the project currency, the following logic is used to determine the currency conversion attributes:

The functional currency attributes are determined as follows:

1. If a user-entered conversion attribute is included in the transaction, that attribute is used for the conversion.
2. If a user-entered attribute is not included in the transaction, the system uses the default attribute in the implementation options for the expenditure operating unit.

The attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the functional currency.

The project currency attributes are determined as follows:

1. If user-entered conversion attribute is included in the transaction, that attribute is used for the conversion.
2. If user-entered attribute is not included in the transaction, the system looks for a default attribute for the task to which the transaction is charged.

3. If default conversion attribute does not exist for task, the system uses the default conversion attribute for the project to which the transaction is charged.
4. If there are no defaults entered at the project or task level, the default attribute is the attribute entered in the implementation options.
 - The default rate date is the implementation option for the expenditure operating unit.
 - The default rate type is the implementation option for the project operating unit.

The attributes are used to obtain a conversion rate, which is used to convert the transaction currency amount to the project currency.

This logic is illustrated in Table 14 – 3.

Functional Currency Rate Type and Rate Date	Project Currency Rate Type and Rate Date
The following hierarchy is used: 1. User–entered value 2. Default value from the expenditure operating unit’s implementation options	The following hierarchy is used: 1. User–entered value 2. Default value from the lowest task 3. Default value from the project 4. For the rate type, the default value from the project operating unit’s implementation options. For the rate date, the default value from the expenditure operating unit’s implementation options.

Table 14 – 3 Functional currency does not equal project currency (Page 1 of 1)

Calculating Costs for Accounted Multi–Currency Transactions

Functional Currency Raw Cost: Rounding Limit

When a transaction is imported as accounted, you must supply a value for ACCT_RAW_COST (functional raw cost). If the transaction currency is different from the functional currency, you must also supply the functional conversion attributes.

Transaction Import recalculates the functional raw cost, using the functional currency attributes you provide, to ensure that the imported functional raw cost and functional currency attributes are in agreement. The rounding limit (ACCT_EXCHANGE_ROUNDING_LIMIT) is used as a tolerance level when comparing the calculated and supplied figures.

If the difference between these two amounts is less than or equal to the tolerance limit, then Transaction Import accepts the transaction. Otherwise, the Transaction Import rejects the transaction.

Examples of this calculation are shown in Table 14 – 4:

Column or Calculation	Example 1: Values Within Rounding Limit (transaction is accepted)	Example 2: Values Outside the Rounding Limit (transaction is rejected)
Transaction raw cost (DENOM_RAW_COST)	80 GBP	80 GBP
Functional raw cost (ACCT_RAW_COST)	100 USD	85 USD
Functional Exchange Rate (based on supplied currency attributes)	1.2375	1.2375
Rounding Limit (ACCT_EXCHANGE_ROUNDING_LIMIT)	10	10
Calculated functional raw cost (DENOM_RAW_COST * Functional Exchange Rate)	99 USD	99 USD
Difference between calculated and supplied functional raw cost	abs (100 – 99) = 1	abs (85 – 99) = 14

Table 14 – 4 (Page 1 of 1)

In Example 1, the calculated functional raw cost (99 USD) differs from the supplied functional raw cost (100 USD) by 1, which is less than the tolerance limit (10). Therefore, the transaction is accepted.

In Example 2, the values are the same as in Example 1, except that the supplied functional raw cost is 85 USD. This amount differs from the calculated functional raw cost (99 USD) by 14, which is more than the tolerance limit (10). Therefore, the transaction is rejected.

If the supplied ACCT_ROUND_LIMIT value is null, the rounding limit is zero.

Import Options (Transaction Source)

Transaction Import processes transactions based on the transaction source you select for each imported transaction. When you set up each transaction source, you select options that determine how transactions are processed by Transaction Import.

Following are some of the fields and actions you can control when you choose transaction source options:

- the default expenditure type class
- whether Projects calculates raw cost amounts
- whether Projects calculates burden amounts
- whether Projects interfaces amounts to GL and AP
- whether Projects imports the expenditure organization for employee transactions
- whether to allow manual adjustments before transaction import
- whether duplicate reference IDs are allowed within a transaction source
- whether the transaction can be reversed or adjusted after it is imported
- whether Projects calculates MRC reporting currency amounts

For a detailed description of all transaction source options, see: Transaction Sources: page 17 – 95.

Grouping Transactions into Expenditure Batches and Expenditures

This section describes how Transaction Import groups transactions into expenditure batches and expenditures.

When you load transactions into the interface table from an external system, Oracle Projects requires that you specify the following information for each transaction:

- Transaction source
- Batch name
- Expenditure ending date
- Employee name or Organization

- Expenditure type class (if this information is not provided for the transaction, the value defaults to the expenditure type class assigned to the transaction source during implementation)
- The following currency attributes, if foreign currencies are used:
 - transaction currency
 - functional currency conversion rate date
 - functional currency conversion rate type
 - functional currency conversion rate

Transaction Import groups all of the transactions processed during an interface run into expenditures and expenditure batches in the following manner.



Attention: If the employee number is specified, Transaction Import ignores any value for the organization and derives the organization value based on the employee's assignment.

An exception to this is if the Import Employee Organization option is selected for the transaction source.

Straight Time and Expense Reports

If the transaction source of the transactions being processed is defined with an expenditure type class of *Straight Time* or *Expense Reports*, the transactions are grouped into expenditures and expenditure batches based on the following information:

- Transaction source
- Expenditure type class
- Batch name
- Employee number
- Expenditure ending date
- Additional grouping criteria, provided by the user, using the following columns:
 - ORIG_EXP_TXN_REFERENCE1
 - USER_ORIG_EXP_TXN_REFERENCE
 - VENDOR_NUMBER
 - ORIG_EXP_TXN_REFERENCE2
 - ORIG_EXP_TXN_REFERENCE3

- The following currency attributes, if applicable:
 - transaction currency
 - functional currency conversion rate date
 - functional currency conversion rate type
 - functional currency conversion rate

Each unique batch name becomes an expenditure batch, and each unique expenditure type class, employee number, and expenditure ending date combination becomes an expenditure within the expenditure batch. The ending date of the expenditure batch is set to the maximum ending date of all the expenditures created within that batch.

An employee number is required for all transactions with an expenditure type class Straight Time or Expense Reports. Transactions with any other expenditure type classes do not require an employee number.

All Other Expenditure Type Classes

If the transaction source of the transactions being processed is defined with an expenditure type class of *Usages*, *Miscellaneous Transactions*, *Burden Transactions*, *Inventory*, or *Work in Process*, the key information in the interface table used in grouping transactions into expenditures and expenditure batches is as follows:

- Transaction source
- Expenditure type class
- Batch name
- Employee number (optional)
- Expenditure organization name
- Expenditure ending date
- Additional grouping criteria, provide by the user, using the following columns:
 - ORIG_EXP_TXN_REFERENCE1
 - USER_ORIG_EXP_TXN_REFERENCE
 - VENDOR_NUMBER
 - ORIG_EXP_TXN_REFERENCE2
 - ORIG_EXP_TXN_REFERENCE3

- The following currency attributes, if applicable:
 - transaction currency
 - functional currency conversion rate date
 - functional currency conversion rate type
 - functional currency conversion rate

Each unique batch name becomes an expenditure batch, and each unique expenditure type class, employee number, organization, and expenditure ending date combination becomes an expenditure within the expenditure batch. The ending date of the expenditure batch is set to the maximum ending date of all the expenditures created within that batch.

Transaction Import Example: Labor and Expense by Employee Number

Example 1 You load the following transactions (expenditure items) into the interface table. The transaction source of Site1 has expenditure type classes of Straight Time and Expense Reports.

In this example, all imported expenditures are in the functional currency. Therefore, currency attributes are ignored in grouping expenditure items.

Trx Number	Trx Source	Expenditure Type Class	Batch Name	Employee Number	Expenditure Ending Date
1	Site1	Straight Time	L1	1000	02-OCT-95
2	Site1	Straight Time	L1	1000	25-SEP-95
3	Site1	Expense Reports	L1	1000	25-SEP-95
4	Site1	Expense Reports	L1	1001	09-OCT-95
5	Site1	Straight Time	L2	1001	09-OCT-95
6	Site1	Straight Time	L2	1001	09-OCT-95

Table 14 – 5 (Page 1 of 1)

If you submit Transaction Import for the transaction source of Site1 and do not specify a specific batch to process (pick all transactions with a transaction source of Site1), then Transaction Import will process all six of the above transactions.

Assuming that all of the transactions in this example are valid, then Oracle Projects creates two expenditure batches—L1 and L2:

Batch Name	Transaction Number	Expenditure Type Class	Employee Number	Expenditure Ending Date
L1	1	Straight Time	1000	02-OCT-95
	2	Straight Time	1000	25-SEP-95
	3	Expense Reports	1000	25-SEP-95
	4	Expense Reports	1001	09-OCT-95
L2	5	Straight Time	1001	09-OCT-95
	6	Straight Time	1001	09-OCT-95

Table 14 – 6 (Page 1 of 1)

Since the transaction source has expenditure type classes of Straight Time and Expense Reports, Transaction Import groups the transactions by employee, expenditure ending date, and expenditure type class when creating expenditures. Therefore, the resulting expenditures are as follows:

Batch Name	Transaction Number	Expenditure Type Class	Employee Number	Expenditure Ending Date
L1	1	Straight Time	1000	02-OCT-95
	2	Straight Time	1000	25-SEP-95
	3	Expense Reports	1000	25-SEP-95
	4	Expense Reports	1001	09-OCT-95
L2	5,6	Straight Time	1001	09-OCT-95

Table 14 – 7 (Page 1 of 1)

Notice that even though transactions 2 and 3 were for the same employee and the same ending date, Oracle Projects created two expenditures. Transactions with different expenditure type classes are imported into different expenditure batches. Different batch names will also result in the creation of different expenditure batches, even if they contain transactions for the same employee and ending date.

Since the ending date of the expenditure batch created is equal to the maximum ending date of the expenditures created within that batch, the batch ending dates for our example are as follows:

Batch Name	Expenditure Ending Date
L1	09-OCT-95
L2	09-OCT-95

Table 14 – 8 (Page 1 of 1)

Transaction Import Example: Usage

Example 2 You load the following transactions into the interface table; the transaction source of Usage has an expenditure type class of Usages. The grouping logic is slightly different for usage items, because usage expenditures can be created for an employee or an organization.

In this example, all imported expenditures are in the functional currency. Therefore, currency attributes are ignored in grouping expenditure items.

You do not need to enter an employee number for usage transactions.

Trx Number	Txn Source	Expenditure Type Class	Batch Name	Employee Number	Organization	Expenditure Ending Date
1	Usage	Usages	U1	1000	West	02-OCT-95
2	Usage	Usages	U1	1000	East	02-OCT-95
3	Usage	Usages	U1		West	02-OCT-95
4	Usage	Usages	U1		Midwest	02-OCT-95

Table 14 – 9 (Page 1 of 1)

Since all of these transactions have the same batch name, Oracle Projects creates only one expenditure batch. For usage items, Transaction Import groups transactions by employee, organization, and expenditure ending date when creating expenditures. Therefore, the resulting expenditures after import would be as follows:

Batch Name	Trx Number	Expenditure Type Class	Employee Number	Organization	Expenditure Ending Date
U1	1, 2	Usages	1000	*Employee Org*	02-OCT-95
	3	Usages		West	02-OCT-95
	4	Usages		Midwest	02-OCT-95

Table 14 – 10 (Page 1 of 1)

Notice that transactions (1) and (2) appear in the same expenditure because they were for the same employee/ expenditure ending date, even though the organization name specified for both is different. If a transaction specifies an employee number, Transaction Import ignores any value for Organization and derives the organization value based on the employee's assignment (if the Import Employee Organization option is not used).

Also note that even if employee 1000's organization assignment were West, the resulting expenditures would still be the same. Transaction Import never groups usage transactions for an employee into the same expenditure as usage transactions for an organization.

Viewing and Processing Imported Transactions

Viewing Transactions in Oracle Projects

Transaction Import loads transactions as pre-approved expenditure items. Expenditure batches are created with a status of Released. A status of Released indicates that the expenditure batch is fully approved and ready for cost distribution.

All transactions that have already been accounted for in external systems, including manufacturing transactions, are loaded as costed transactions. These transactions are created with cost distribution lines and a status of Received.

You can view imported expenditure batches and associated expenditures and expenditure items using the Expenditure Inquiry and Expenditure Batches windows in Oracle Projects.

Expenditure Batch Names

The expenditure batch name within Oracle Projects is created as a concatenation of the batch name and expenditure type class entered in

the transaction interface table and the interface ID. For example, an expenditure batch name may appear as follows: B1ST101.

B1 is the batch name loaded from the external system. ST is the expenditure type class ('ST' for Straight Time). 101 is the interface ID generated when you run Transaction Import.

The maximum length of the expenditure batch name is 20 characters (10 for the batch name, 3 for the expenditure type class, and 7 for the interface ID). The interface ID is an Oracle sequence that resets to 1 after 9999999. If a duplicate expenditure batch name results from resetting the interface ID to 1, change the batch name of the entire batch.

Viewing Transactions in the Audit Report

To see detailed information on successfully imported expenditure items, use the following information as parameters for the AUD: Pre-Approved Expenditure Entry Audit Report. The information for these parameters is displayed in the Transaction Import output report.

- Expenditure batch
- Employee name that corresponds to the user ID of the person who submitted Transaction Import

Identifying the "Entered By" User for Reporting Purposes

For viewing imported transaction online, or for using the Entered By parameters in reports such as the Pre-Approved Expenditures Entry Audit Report, use the employee name that corresponds to the user ID of the person who submitted the process as the entered by person.



Suggestion: You may want to create a new user to run Transaction Import with a unique name, such as TRX IMPORT USER, so you can easily identify and report imported transactions.

Adjusting Imported Transactions in Oracle Projects

You can adjust imported transactions in Oracle Projects, if the transaction source allows this type of change. See: Expenditure Adjustments: page 4 – 26 and Transaction Sources: page 17 – 95.

Raw cost values for transactions that were already costed when loaded into Oracle Projects will not be changed if you mark the item for cost recalculation.

Uniquely Identifying Transactions

You can uniquely identify imported transactions by the transaction source and the original transaction reference, if you do not allow duplicate system references for the transaction source. You can review this information in the Expenditure Items window, which you can access from the Expenditure Inquiry window.

Processing Imported Transactions

Oracle Projects processes imported transactions just as it processes transactions entered using the expenditure entry forms. The imported transactions that are not accounted (as specified for the transaction source) are processed in the appropriate cost distribution program. If expenditure items are billable and charged to a contract project, they are also processed during revenue and invoice generation. Accounting transactions are then interfaced to other Oracle Applications.

Purging Imported Transactions

You can purge imported transactions from the interface table either automatically or manually:

- To purge imported transactions automatically, you specify that a particular transaction source is purgeable.
- To purge imported transactions manually, use SQL*Plus to remove the records from the interface table.

Transaction Import Interface

This section includes a detailed description of the Transaction Import interface table, PA_TRANSACTION_INTERFACE_ALL. It also describes the validation Oracle Projects performs for imported transactions. This section also describes how to resolve import exceptions.

Transaction Import Validation

You use an import utility to load transaction information into the interface table (PA_TRANSACTION_INTERFACE_ALL) for each transaction you want to create. You can load the table directly from your external system, or you can fill in some values using SQL*Plus.

Transaction Import validates your data for compatibility with Oracle Projects by ensuring that the columns in the interface table reference the appropriate and active values and columns in Oracle Projects.

Validating Expenditure Items

Transaction Import validates all items within an expenditure before it creates an expenditure. If at least one item in an expenditure fails the validation, Oracle Projects rejects all items in the expenditure. The item that failed is marked with a rejection reason; all other items in the expenditure are marked as rejected without a reason.

Transaction Import detects only one error per transaction each time you run the import process. If a single transaction has multiple errors, you will need to run Transaction Import more than once to discover all the errors.

You can correct rejected transactions using the Review Transactions window. After you make your corrections, you can validate the revised information by resubmitting the corrected transactions from the same window. See: Resolving Import Exceptions: page 14 – 58.

If Transaction Import detects errors during the validation process, you do not need to correct all rejected items to save your transaction information. You need to correct all items, however, before you can successfully import your transactions.

Validating and Loading Transactions

Transaction Import validates data before importing it, to ensure that your transactions contain the appropriate data for Oracle Projects. For a list of the validation criteria, see: Expenditure Item Validation: page 4 – 3.

Detailed information on additional column validation is contained in the section: The Transaction Import Interface Table: page 14 – 34.

Target Expenditure Tables

The Transaction Import program validates all required transaction data in this table. If the transaction data is valid, Transaction Import creates transactions (expenditure items) from the information in the interface table and places the transaction information in the following expenditure tables:

- PA_EXPENDITURE_GROUPS_ALL
- PA_EXPENDITURES_ALL
- PA_EXPENDITURE_ITEMS_ALL
- PA_COST_DISTRIBUTION_LINES_ALL
- PA_EXPENDITURE_COMMENTS

The Transaction Import Interface Table

The Transaction Import interface table (PA_TRANSACTION_INTERFACE_ALL) is the table you populate to import transactions from external sources into Oracle Projects. For a complete description of the Transaction Import interface table, including foreign keys and database triggers, please consult the *Oracle Projects Technical Reference Manual*.

The interface table is organized by columns that store specific transaction information. For example, the column called TRANSACTION_SOURCE in PA_TRANSACTION_INTERFACE_ALL stores transaction source information.

Table 14 – 11 describes the columns in the Transaction Import interface table and indicates which columns require values for importing transactions into Oracle Projects.

NULL and NOT NULL Columns

Table 14 – 11 indicates whether each column in the Transaction Import interface table is a NULL or NOT NULL column.

NOT NULL columns

You must enter values for all NOT NULL columns to successfully import an expenditure item.

NULL Columns

A NULL column is a column in the interface table that does not require a value. There are two types of NULL columns:

- Some NULL columns are required only for some types of transactions. For example, for usage items, the NON_LABOR_RESOURCE column must be populated. We mark these columns as Conditionally Required. See: Conditionally Required; page 14 – 35.
- Some NULL columns should never be populated because they are used by the Transaction Import program. These columns are called System Assigned Columns. See System Assigned; page 14 – 36.

Other Column Attributes

The Comments column in Table 14 – 11 lists features of the Transaction Import interface table columns that you need to consider when populating the interface table. These features are described below.

Conditionally Required

Conditionally required columns may require a value, depending on the value in another column.

For example, if you are importing a usage expenditure item, the value of SYSTEM_LINKAGE is Usages. When the value of SYSTEM_LINKAGE is Usages, you must supply a value for the NON_LABOR_RESOURCE and NON_LABOR_RESOURCE_ORGANIZATION columns. (These columns are not required for labor expenditure items.) Therefore, the Comments column for NON_LABOR_RESOURCE contains the words "Required for usage items."

As another example, several columns are required only if the transaction has been accounted and interfaced to GL. This criterion is determined as follows:

1. The column TRANSACTION_SOURCE must contain a valid transaction source.
2. Each transaction source in Oracle Projects has an flag that indicates whether transactions have been GL accounted before being imported.

Optional

Columns marked Optional are for optional transaction information tracking.

You can use these columns to import additional information for the transactions that Transaction Import creates. Transaction Import imports the data that you load into these optional columns, provided that the information passes the validation checks.

System Assigned

Oracle Projects assigns values to the system–assigned columns during the import process.



Attention: Your import file must leave these columns blank.

Additional Transaction Interface Tables

Oracle Projects uses the PA_TRANSACTION_XFACE_CTRL_ALL table to control processing of transactions by the Transaction Import program. You must not insert or update records in this table directly. This table is populated by database triggers when you load or update the PA_TRANSACTION_INTERFACE table.

PA_TRANSACTION_INTERFACE_ALL Column Descriptions

Table 14– 11 shows column types, null/not null characteristics, and comments about each column in the PA_TRANSACTION_INTERFACE_ALL table. More information about the each column is provided after the table.

Columns of type VARCHAR2 are case sensitive.

Column Name	Null	Type	Comments
TRANSACTION_SOURCE: page 14 – 40	NOT NULL	VARCHAR2(30)	
BATCH_NAME: page 14 – 40	NOT NULL	VARCHAR2(50)	
EXPENDITURE_ENDING_DATE: page 14 – 41	NOT NULL	DATE	
EMPLOYEE_NUMBER: page 14 – 41	NULL	VARCHAR2(30)	
ORGANIZATION_NAME: page 14 – 41	NULL	VARCHAR2(60)	
EXPENDITURE_ITEM_DATE: page 14 – 42	NOT NULL	DATE	
PROJECT_NUMBER: page 14 – 42	NOT NULL	VARCHAR2(25)	
TASK_NUMBER: page 14 – 42	NOT NULL	VARCHAR2(25)	
EXPENDITURE_TYPE: page 14 – 42	NOT NULL	VARCHAR2(30)	
NON_LABOR_RESOURCE: page 14 – 43	NULL	VARCHAR2(20)	Required for usage items
NON_LABOR_RESOURCE_ORG_NAME: page 14 – 43	NULL	VARCHAR2(60)	Required for usage items
QUANTITY: page 14 – 43	NOT NULL	NUMBER(22,2)	
RAW_COST: page 14 – 44	NULL	NUMBER(22,2)	Required for costed items. Otherwise Optional
EXPENDITURE_COMMENT: page 14 – 44	NULL	VARCHAR2(240)	Optional
TRANSACTION_STATUS_CODE: page 14 – 44	NOT NULL	VARCHAR2(2)	
TRANSACTION_REJECTION_CODE: page 14 – 45	NULL	VARCHAR2(30)	System Assigned
EXPENDITURE_ID: page 14 – 45	NULL	NUMBER(15)	System Assigned
ORIG_TRANSACTION_REFERENCE: page 14 – 45	NOT NULL	VARCHAR2(30)	
ATTRIBUTE_CATEGORY: page 14 – 46	NULL	VARCHAR2(30)	Optional
ATTRIBUTE1 through ATTRIBUTE10: page 14 – 46	NULL	VARCHAR2(150)	Optional
RAW_COST_RATE: page 14 – 46	NULL	NUMBER(22,5)	Optional
INTERFACE_ID: page 14 – 47	NULL	NUMBER(15)	System Assigned
UNMATCHED_NEGATIVE_TXN_FLAG: page 14 – 47	NULL	VARCHAR2(1)	Optional
EXPENDITURE_ITEM_ID: page 14 – 47	NULL	NUMBER(15)	System Assigned
ORG_ID: page 14 – 47	NULL	NUMBER(15)	
DR_CODE_COMBINATION_ID: page 14 – 48	NULL	NUMBER(15)	Required for transactions already accounted for in GL. (Each transaction source indicates whether transactions are GL accounted or not.)

Table 14 – 11 (Page 1 of 3) PA_TRANSACTION_INTERFACE_ALL

Column Name	Null	Type	Comments
CR_CODE_COMBINATION_ID: page 14 – 48	NULL	NUMBER(15)	Required for transactions already accounted for in GL
CDL_SYSTEM_REFERENCE1: page 14 – 48	NULL	VARCHAR2(30)	Required for transactions already accounted for in GL
CDL_SYSTEM_REFERENCE2: page 14 – 48	NULL	VARCHAR2(30)	Required for transactions already accounted for in GL
CDL_SYSTEM_REFERENCE3: page 14 – 49	NULL	VARCHAR2(30)	Required for transactions already accounted for in GL
GL_DATE: page 14 – 49	NULL	DATE	Required for transactions already accounted for in GL
BURDENED_COST: page 14 – 49	NULL	NUMBER(22,5)	Required for burden transactions
BURDENED_COST_RATE: page 14 – 49	NULL	NUMBER(22,5)	Required for burden transactions
SYSTEM_LINKAGE: page 14 – 50	NULL	VARCHAR2(30)	Optional
TXN_INTERFACE_ID: page 14 – 50	NULL	NUMBER(15)	System Assigned
USER_TRANSACTION_SOURCE: page 14 – 50	NULL	VARCHAR2(80)	Required if TRANSACTION_SOURCE is not populated
RECEIPT_CURRENCY_AMOUNT: page 14 – 51	NULL	NUMBER	Required if: – SYSTEM_LINKAGE is Expense Reports – and the item is uncosted – and RECEIPT_CURRENCY_CODE is not null and is different from TRANSACTION_CURRENCY_CODE
RECEIPT_CURRENCY_CODE: page 14 – 51	NULL	VARCHAR2(15)	Optional
RECEIPT_EXCHANGE_RATE: page 14 – 51	NULL	NUMBER	Required if RECEIPT_CURRENCY_AMOUNT and RECEIPT_CURRENCY_CODE are both not null.
DENOM_CURRENCY_CODE: page 14 – 51	NULL	VARCHAR2(15)	Required
DENOM_RAW_COST: page 14 – 52	NULL	NUMBER	Required for costed items
DENOM_BURDENED_COST: page 14 – 52	NULL	NUMBER	Required for burden transactions
ACCT_RATE_DATE: page 14 – 52	NULL	DATE	Required for accounted transactions if functional currency and DENOM_CURRENCY_CODE are not the same
ACCT_RATE_TYPE: page 14 – 52	NULL	VARCHAR2(30)	Required for accounted transactions if functional currency and DENOM_CURRENCY_CODE are not the same

Table 14 – 11 (Page 2 of 3) PA_TRANSACTION_INTERFACE_ALL

Column Name	Null	Type	Comments
ACCT_EXCHANGE_RATE: page 14 – 53	NULL	NUMBER	Required (1) for accounted transactions if functional currency and DENOM_CURRENCY_CODE are not the same, or (2) if ACCT_RATE_TYPE is User
ACCT_RAW_COST: page 14 – 53	NULL	NUMBER	Required for accounted transactions
ACCT_BURDENED_COST: page 14 – 53	NULL	NUMBER	Optional
ACCT_EXCHANGE_ROUNDING_LIMIT: page 14 – 53	NULL	NUMBER	Optional
PROJECT_CURRENCY_CODE: page 14 – 54	NULL	VARCHAR2(15)	System Assigned
PROJECT_RATE_DATE: page 14 – 54	NULL	DATE	Optional
PROJECT_RATE_TYPE: page 14 – 54	NULL	VARCHAR2(30)	Optional
PROJECT_EXCHANGE_RATE: page 14 – 54	NULL	NUMBER	Required if PROJECT_RATE_TYPE is User
ORIG_EXP_TXN_REFERENCE1: page 14 – 55	NULL	VARCHAR2(60)	Populated with DIST.INVOICE_ID by Interface Supplier Invoices process.
ORIG_EXP_TXN_REFERENCE2: page 14 – 55	NULL	VARCHAR2(60)	Used for additional grouping.
ORIG_EXP_TXN_REFERENCE3: page 14 – 55	NULL	VARCHAR2(60)	Used for additional grouping.
ORIG_USER_EXP_TXN_REFERENCE: page 14 – 55	NULL	VARCHAR2(60)	Populated with INV.INVOICE_NUM by Interface Supplier Invoices process.
VENDOR_NUMBER: page 14 – 56	NULL	VARCHAR2(30)	Populated with INV.VENDOR_ID by Interface Supplier Invoices process.
OVERRIDE_TO_ORGANIZATION_NAME: page 14 – 56	NULL	VARCHAR2(60)	Ignored unless the Import Employee Organization option is set to Y in the Transaction Source
REVERSED_ORIG_TXN_REFERENCE: page 14 – 56	NULL	VARCHAR2(30)	Optional
BILLABLE_FLAG: page 14 – 56	NULL	VARCHAR2(1)	Optional
CREATED_BY: page 14 – 56	NOT NULL	NUMBER(15)	Standard Who Column
CREATION_DATE: page 14 – 57	NOT NULL	DATE	Standard Who Column
LAST_UPDATED_BY: page 14 – 57	NOT NULL	NUMBER(15)	Standard Who Column
LAST_UPDATE_DATE: page 14 – 57	NOT NULL	DATE	Standard Who Column

Table 14 – 11 (Page 3 of 3) PA_TRANSACTION_INTERFACE_ALL

TRANSACTION_SOURCE

Enter an implementation-defined transaction source code that classifies the transaction. This transaction source, along with the original transaction reference, identifies the source of transactions loaded into Oracle Projects from an external system.

If a transaction source is defined with the Import Raw Cost Amounts option enabled, then a raw cost amount must exist for the transaction.

If the transaction source is defined with the Purge After Import option enabled, then the transaction will be purged from the table when the import process has completed.

See: Transaction Sources: page 17 – 95.

This column is for internal use only; you cannot view values stored in this column from any Oracle Projects windows. You must enter this internal code or a value in `USER_TRANSACTION_SOURCE` to specify the transaction source.

Validation: The transaction source you enter must be a valid transaction source. You can obtain a list of valid transaction sources from `PA_TRANSACTION_SOURCES.TRANSACTION_SOURCE`.

Destination: `PA_EXPENDITURE_GROUPS_ALL`. `TRANSACTION_SOURCE` and `PA_EXPENDITURE_ITEMS.TRANSACTION_SOURCE`. The transaction source information is denormalized for performance optimization.

BATCH_NAME

An expenditure batch is a group of expenditures loaded into the interface table. All transactions in a batch must have the same transaction source.

The batch name is used to derive part of the expenditure batch name used in the expenditure tables. The expenditure batch name is created by Oracle Projects by combining the following three items from the transaction interface table:

- batch name (user-supplied)
- expenditure type class (user-supplied)
- interface ID (system-generated)

Validation: None

Destination: PA_EXPENDITURE_GROUPS_ALL.
EXPENDITURE_GROUP

EXPENDITURE_ENDING_DATE

Enter the date of the last day of the expenditure week for this transaction. All transactions in an expenditure must be on or before the expenditure ending date. In addition, all timecard items must be within the expenditure week date range. The maximum expenditure ending date of all expenditure items processed in a batch becomes the expenditure batch ending date.

Validation: Valid week ending date based on the expenditure cycle start day defined in Implementation Options.

Destination: PA_EXPENDITURES_ALL.EXPENDITURE_ENDING_DATE

EMPLOYEE_NUMBER

Enter the number of the employee who incurred the charge for this transaction. This column must be populated for labor and expense report items, but is optional for other expenditure type classes.

Validation: Must be a valid employee number in
PER_PEOPLE_F.EMPLOYEE_NUMBER

Destination: PA_EXPENDITURES_ALL.INCURRED_BY_PERSON_ID

ORGANIZATION_NAME

Enter the name of the organization that incurred the charge for this transaction. If employee number is provided, then this column can be null, in which case Transaction Import derives this value from the employee organization. If you provide both an employee and an organization, Oracle Projects uses the employee information to derive the organization (if the Import Employee Organization option is not used). Transaction Import uses the last employee assignment in the expenditure period to derive the employee organization.

Validation: Must be a valid organization in
PER_ORGANIZATION_UNITS.NAME

Destination: PA_EXPENDITURES_ALL.INCURRED_BY_ORGANIZATION_ID

EXPENDITURE_ITEM_DATE

Enter the date on which this transaction occurred.

- Validation:** The expenditure item date must be on or before the expenditure ending date. Also, the expenditure item date of timecard items must fall within the expenditure week as defined by the expenditure ending date.
- Destination:** PA_EXPENDITURE_ITEMS_ALL.
EXPENDITURE_ITEM_DATE

PROJECT_NUMBER

Enter the number of the project this transaction is charged to.

- Validation:** Must be a valid project number in PA_PROJECTS.SEGMENT1 and PA_PROJECTS_EXPEND_V; project must have a project status that allows new transactions; project must not be a project template; and project must allow charges from your operating unit (if multiple organization support is enabled).
- Destination:** None

TASK_NUMBER

Enter the number of the task this transaction is charged to.

- Validation:** Must be a valid task number in PA_TASKS.TASK_NUMBER for the project number specified; and task must be a lowest task that allows charges.
- Destination:** PA_EXPENDITURE_ITEMS_ALL.TASK_ID

EXPENDITURE_TYPE

Enter the expenditure type that classifies the type of charge for this transaction.

- Validation:** This expenditure type must be a valid expenditure type in PA_EXPENDITURE_TYPES.EXPENDITURE_TYPE. The expenditure type and expenditure type class combination must exist as an active combination in the PA_EXPEND_TYP_SYS_LINKS table. You cannot

import expenditure items with a expenditure type class of Supplier Invoices.

Destination: PA_EXPENDITURE_ITEMS_ALL.
EXPENDITURE_TYPE

NON_LABOR_RESOURCE

Enter the non-labor resource utilized for this transaction. This column is populated only for usage items.

Validation: This non-labor resource must be a valid non-labor resource in PA_NON_LABOR_RESOURCES.NON_LABOR_RESOURCE and must be a resource classified by the specified expenditure type.

Destination: PA_EXPENDITURE_ITEMS_ALL.NON_LABOR_RESOURCE

NON_LABOR_RESOURCE_ORG_NAME

Enter the name of the organization owning the non-labor resource utilized for the transaction. This column is populated only for usage items.

Validation: Must be a valid non-labor resource owning organization in PA_NON_LABOR_RESOURCE_ORGS.ORGANIZATION_ID for the specified non-labor resource.

Destination: rPA_EXPENDITURE_ITEMS_ALL.
ORGANIZATION_ID

QUANTITY

Enter the number of units for the transaction based on the unit of measure defined for the expenditure type. If the transaction is a multi-currency transaction and the expenditure type Unit of Measure is currency, then the quantity is the project currency quantity.

For burden transactions, this value must equal zero.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.QUANTITY

RAW_COST

Enter the total raw cost of the transaction. If the transaction is a multi-currency transaction, then this is the project currency raw cost amount.

For burden transactions, this value must equal zero.

Validation: If the transaction source is defined with the Import Raw Cost Amounts option enabled, a raw cost amount must exist. If the Import Raw Cost Amounts option is not enabled for the transaction source, then this column value is ignored.

Destination: PA_EXPENDITURE_ITEMS_ALL.RAW_COST

EXPENDITURE_COMMENT

Enter the description that you want to assign to the expenditure item created from this transaction.

Validation: None

Destination: PA_EXPENDITURE_COMMENTS.
EXPENDITURE_COMMENT

TRANSACTION_STATUS_CODE

You must set this value to *P* for transactions you want to import.

If TRANSACTION_STATUS_CODE is set to *A* after Transaction Import completes, this indicates that the TRANSACTION_SOURCE entered is not defined with the Purge After Import option enabled, and you must delete the item manually. See: Transaction Sources: page 17 – 95.

If an item is rejected, the rejection reason code will be generated in the TRANSACTION_REJECTION_CODE column.

The status codes are:

Status Code	Description
PO	Rejected by Pre Import
P	Passed Pre Import
PI	Rejected by Transaction Import

Table 14 – 12 (Page 1 of 2)

Status Code	Description
PR	Rejected by Post Import
I	Passed Import
A	Passed Import or Passed Post Import

Table 14 – 12 (Page 2 of 2)

Validation: Lookup codes for this column are stored in the PA_LOOKUPS table under the lookup type of TRANSACTION STATUS.

Destination: None

TRANSACTION_REJECTION_CODE

This column is populated by a system–defined code indicating why the transaction was rejected by the Transaction Import program. For a list of codes, see: Resolving Import Exceptions: page 14 – 58.

Validation: This column is system assigned. Lookup codes for this column are stored in the PA_LOOKUPS table under the lookup type of TRANSACTION REJECTION REASON.

Destination: None

EXPENDITURE_ID

This column is populated by a system–defined value to identify the transactions grouped into an expenditure.

Validation: This column is system assigned.

Destination: PA_EXPENDITURES_ALL.EXPENDITURE_ID

ORIG_TRANSACTION_REFERENCE

Enter a reference to the original item imported from an external system via the Transaction Import program. Unless the transaction source allows duplicate references, this reference, along with the transaction source, uniquely identifies the original transaction.

Validation: An expenditure item must not already exist with the same identifier values as the transaction if the

transaction source does not allow duplicate system reference values.

Destination: PA_EXPENDITURE_ITEMS_ALL.
ORIG_TRANSACTION_REFERENCE

ATTRIBUTE_CATEGORY

Enter the descriptive flexfield category for the descriptive flexfield information you want to import.

Validation: Validated using the standard AOL application programming interface (API) for validating attribute categories.

Destination: PA_EXPENDITURE_ITEMS_ALL.
ATTRIBUTE_CATEGORY

ATTRIBUTE1 through ATTRIBUTE10

Enter the descriptive flexfield information that you want to import for a transaction (expenditure item). The structure of the information you enter in these columns (datatypes, value sets) should match the structure of the descriptive flexfield segments you have defined for your transaction or you will experience validation problems when you try to access the information in the expenditure entry forms.

Validation: Validated as expenditure item descriptive flexfield attributes, using the standard AOL application programming interface (API) for validating descriptive flexfields. **NOTE:** You must populate this field with the *attribute ID* (code) rather than the *meaning*. The meaning will not pass the validation.

NOTE: The Transaction Import process will validate descriptive flexfield attributes only if the Attribute Category field is populated.

Destination: PA_EXPENDITURE_ITEMS_ALL.
ATTRIBUTE1 through ATTRIBUTE10

RAW_COST_RATE

Enter the raw cost rate for the costed transaction. Oracle Projects uses this information for reporting purposes only.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
RAW_COST_RATE

INTERFACE_ID

This column is populated by a system-defined value to identify transactions processed by a given concurrent request.

Validation: This column is system assigned.

Destination: None

UNMATCHED_NEGATIVE_TXN_FLAG

A value of Y in this column indicates that the transaction is an unmatched negative transaction.

Enter Y or N so that Transaction Import can identify summary-level adjustments (negative amounts) for which there is no single matching item to adjust. If this column is set to Y, Transaction Import will bypass the matching validation logic that is usually executed for adjustments (negative transactions). If this column is set to N, Oracle Projects finds the matching item and populates PA_EXPENDITURE_ITEMS_ALL.ADJUSTED_EXPENDITURE_ITEM_ID.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.ADJUSTED_EXPENDITURE_ITEM_ID (if column is set to N)

EXPENDITURE_ITEM_ID

This column is populated by a system-defined value to identify the transactions created in Oracle Projects.

Validation: This column is system assigned.

Destination: PA_EXPENDITURES_ALL.
EXPENDITURE_ITEM_ID

ORG_ID

This column is populated by the identification code of the organization to which the user belongs. This information is used only if you have implemented multi-organization support.

Validation: Must be a valid organization ID defined in the following tables:

PA_EXPENDITURE_GROUP_ALL.ORG_ID,
PA_EXPENDITURES_ALL.ORG_ID,
PA_EXPENDITURE_ITEMS_ALL.ORG_ID, and
PA_COST_DISTRIBUTION_LINES_ALL.ORG_ID.

Destination: None

DR_CODE_COMBINATION_ID

If you are importing a transaction that has already been accounted for and interfaced to GL, enter the ID of the GL debit account. If you allow adjustments to these transactions, Oracle Projects uses this value to account for reversing, adjusting costs.

Validation: Must be a valid GL account in
GL_CODE_COMBINATIONS

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
DR_CODE_COMBINATION_ID

CR_CODE_COMBINATION_ID

If you are importing a transaction that has already been accounted for and interfaced to GL, enter the ID of the GL credit account.

Validation: Must be a valid GL account in
GL_CODE_COMBINATIONS

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
CR_CODE_COMBINATION_ID

CDL_SYSTEM_REFERENCE1

Enter the reference to the record in the external system if it has already been accounted for and interfaced to General Ledger. This information enables you to drill down to the transaction in the originating system.

Validation: None

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
SYSTEM_REFERENCE1

CDL_SYSTEM_REFERENCE2

Enter the reference to the record in the external system if it has already been accounted for and interfaced to General Ledger. This information enables you to drill down to the transaction in the originating system.

Validation: None

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
SYSTEM_REFERENCE2

CDL_SYSTEM_REFERENCE3

Enter the reference to the record in the external system if it has already been accounted for and interfaced to General Ledger. This information enables you to drill down to the transaction in the originating system.

Validation: None

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
SYSTEM_REFERENCE3

GL_DATE

Enter the GL date of the transaction if it has already been accounted for and interfaced to General Ledger. Oracle Projects uses this information for reporting purposes only.

Validation: If this column is null for an accounted transaction, then Transaction Import will reject the transaction.

Destination: PA_COST_DISTRIBUTION_LINES_ALL.
GL_DATE

BURDENED_COST

The system populates this column with the project currency burdened cost for transactions that meet either of the following criteria:

- An expenditure type class of Burden Transaction
- A transaction source with the Import Burdened Amounts option enabled

Burden transactions have quantities and raw costs equal to zero.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.BURDEN_COST

BURDENED_COST_RATE

Enter the burdened cost multiplier for the burden transaction. Oracle Projects uses this information for reporting purposes only.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
BURDEN_COST_RATE

SYSTEM_LINKAGE

Enter the expenditure type class of the given transaction. If the transaction has no expenditure type class, the default expenditure type class defined for the transaction source will be used. Oracle Projects stores this information at the expenditure item level and uses it to determine how to process the expenditure item.

Validation: Must be defined for the expenditure type. If this value is NULL, then the default system linkage (or expenditure type class) defined for the transaction source is used.

Destination: PA_EXPENDITURE_ITEMS_ALL.
SYSTEM_LINKAGE_FUNCTION

TXN_INTERFACE_ID

The values in this column are generated by a sequence to provide a unique identifier for each transaction loaded into the interface table.

Validation: This column is system assigned.

Destination: None

USER_TRANSACTION_SOURCE

Populate this column with the transaction source name. Oracle Projects will populate TRANSACTION_SOURCE based on this value if you do not specify the transaction source code. You can specify either value.

This column is a translatable transaction source column.

Validation: The transaction source you enter must be a valid transaction source. You can obtain a list of valid transaction sources from PA_TRANSACTION_USER.USER_TRANSACTION_SOURCE. Oracle Projects uses values from this table to derive the transaction source if you do not specify a value for the transaction source.

Destination: None

RECEIPT_CURRENCY_AMOUNT

The amount of the expenditure in the original currency (receipt currency).

- Validation:** If SYSTEM_LINKAGE is Expense Reports, the item is uncosted, and RECEIPT_CURRENCY_CODE is different from DENOM_CURRENCY_CODE, this value must equal zero or null.
- Destination:** PA_EXPENDITURE_ITEMS_ALL.RECEIPT_CURRENCY_AMOUNT

RECEIPT_CURRENCY_CODE

The currency code for the receipt currency (the currency in which an expense report transaction occurred).

- Validation:** Must be a valid currency code. A list of valid currency codes can be obtained from FND_CURRENCIES_VL.CURRENCY_CODE and FND_CURRENCIES_VL.ENABLED_FLAG.
- Destination:** PA_EXPENDITURE_ITEMS_ALL.RECEIPT_CURRENCY_CODE

RECEIPT_EXCHANGE_RATE

The exchange rate to convert from the receipt currency to the transaction (reimbursement) currency.

- Validation:** None
- Destination:** PA_EXPENDITURE_ITEMS_ALL.
RECEIPT_EXCHANGE_RATE

DENOM_CURRENCY_CODE

The currency code for the transaction currency (reimbursement currency for expense reports).

- Validation:** Must be a valid currency code. A list of valid currency codes can be obtained from FND_CURRENCIES_VL.CURRENCY_CODE and FND_CURRENCIES_VL.ENABLED_FLAG.
- Destination:** PA_EXPENDITURE_ITEMS_ALL.
DENOM_CURRENCY_CODE and

PA_COST_DISTRIBUTION_LINES_ALL.
DENOM_CURRENCY_CODE

DENOM_RAW_COST

The raw cost amount in the transaction currency.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
DENOM_RAW_COST and
PA_COST_DISTRIBUTION_LINES_ALL.
DENOM_RAW_COST

DENOM_BURDENED_COST

The burdened cost amount in the transaction currency.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
DENOM_BURDENED_COST and
PA_COST_DISTRIBUTION_LINES_ALL.
DENOM_BURDENED_COST

ACCT_RATE_DATE

The exchange rate date for converting to the functional currency.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
ACCT_RATE_DATE and
PA_COST_DISTRIBUTION_LINES_ALL.
ACCT_RATE_DATE

ACCT_RATE_TYPE

The conversion type for converting to the functional currency.

Validation: Must be a valid conversion type. You can obtain a list of valid conversion types from
PA_CONVERSION_TYPES_V.

Destination: PA_EXPENDITURE_ITEMS_ALL.
ACCT_RATE_TYPE and
PA_COST_DISTRIBUTION_LINES_ALL.
ACCT_RATE_TYPE

ACCT_EXCHANGE_RATE

The exchange rate for converting to the functional currency.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
ACCT_EXCHANGE_RATE and
PA_COST_DISTRIBUTION_LINES_ALL.
ACCT_EXCHANGE_RATE

ACCT_RAW_COST

The raw cost in the functional currency. For accounted transactions, Transaction Import compares this value to the value calculated from DENOM_RAW_COST, using the conversion attributes. It is validated to make sure that it is within the ACCT_EXCHANGE_ROUNDING_LIMIT. See: Rounding Limit: page 14 – 22.

Validation: For accounted transactions, the functional raw cost, which the system calculates using the given rate attributes (ACCT_RATE_DATE and ACCT_RATE_TYPE) must be within the rounding limit (ACCT_EXCHANGE_ROUNDING_LIMIT) of the entered ACCT_RAW_COST.

Destination: PA_EXPENDITURE_ITEMS_ALL.
ACCT_RAW_COST and
PA_COST_DISTRIBUTION_LINES_ALL.
ACCT_RAW_COST

ACCT_BURDENED_COST

The burdened cost in the functional currency.

Validation: None

Destination: PA_EXPENDITURE_ITEMS_ALL.
ACCT_BURDENED_COST

ACCT_EXCHANGE_ROUNDING_LIMIT

The functional currency rounding limit. If the derivation of the functional currency raw cost is within the rounding limit, a transaction is accepted. If not, it is rejected. See: Rounding Limit: page 14 – 22.

If the value of ACCT_EXCHANGE_ROUNDING_LIMIT is null, then the rounding limit value used is zero (0).

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. ACCT_ROUNDING_LIMIT

PROJECT_CURRENCY_CODE

This column is derived by the system, based on the project number.

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. PROJECT_CURRENCY_CODE and PA_COST_DISTRIBUTION_LINES_ALL. PROJECT_CURRENCY_CODE

PROJECT_RATE_DATE

The exchange rate date for converting to the project currency.

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. PROJECT_RATE_DATE and PA_COST_DISTRIBUTION_LINES_ALL. PROJECT_RATE_DATE

PROJECT_RATE_TYPE

The conversion rate type for converting to the project currency.

Validation:	Must be a valid conversion type. You can obtain a list of valid conversion types from PA_CONVERSION_TYPES_V.
Destination:	PA_EXPENDITURE_ITEMS_ALL. PROJECT_RATE_TYPE and PA_COST_DISTRIBUTION_LINES_ALL. PROJECT_RATE_TYPE

PROJECT_EXCHANGE_RATE

The exchange rate for converting to the project currency.

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. PROJECT_EXCHANGE_RATE and

PA_COST_DISTRIBUTION_LINES_ALL.
PROJECT_EXCHANGE_RATE

ORIG_EXP_TXN_REFERENCE1

Expenditure identifier in the external system (system reference). For supplier invoices imported from Payables, this column populated by the value of DIST.INVOICE_ID. This column is also used for additional grouping.

Validation: None
Destination: PA_EXPENDITURES_ALL.
ORIG_EXP_TXN_REFERENCE1

ORIG_EXP_TXN_REFERENCE2

Columns provided for additional grouping of transactions into expenditures. This column is also used for additional grouping.

Validation: None
Destination: PA_EXPENDITURES_ALL.
ORIG_EXP_TXN_REFERENCE2

ORIG_EXP_TXN_REFERENCE3

Columns provided for additional grouping of transactions into expenditures. This column is also used for additional grouping.

Validation: None
Destination: PA_EXPENDITURES_ALL.
ORIG_EXP_TXN_REFERENCE3

ORIG_USER_EXP_TXN_REFERENCE

Expenditure identifier in the external system (user reference). For supplier invoices imported from Payables, this column is populated by the value of INV.INVOICE_NUM.

Validation: None
Destination: PA_EXPENDITURES_ALL.
ORIG_USER_EXP_TXN_REFERENCE

VENDOR_NUMBER

The supplier number. For supplier invoices imported from Payables, this column is populated by the value of INV.VENDOR_ID.

Validation:	Must be a valid vendor number (PA_VENDORS.SEGMENT1).
Destination:	The corresponding supplier ID is stored in PA_EXPENDITURES_ALL. VENDOR_ID

VERRIDE_TO_ORGANIZATION_NAME

Override organization name.

Validation:	Must be a valid organization name in HR_ORGANIZATION_UNITS.
Destination:	The corresponding organization ID is stored in PA_EXPENDITURE_ITEMS_ALL. OVERRIDE_TO_ORGANIZATION_ID

REVERSED_ORIG_TXN_REFERENCE

The reference identifier of the original transaction that this transaction reverses.

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. ADJUSTED_EXPENDITURE_ITEM_ID

BILLABLE_FLAG

The billable or capitalizable flag.

Validation:	None
Destination:	PA_EXPENDITURE_ITEMS_ALL. BILLABLE_FLAG

CREATED_BY

This column is populated by the employee number of the user who originally created the expenditure in the Review Transactions window.

Validation:	None
Destination:	None

CREATION_DATE

This column is populated by the date on which the expenditure was created in the Review Transactions window.

Validation: None

Destination: None

LAST_UPDATED_BY

This column is populated by the employee number of the user who last updated the expenditure in the Review Transactions window.

Validation: None

Destination: None

LAST_UPDATE_DATE

This column is populated by the date on which the expenditure was last updated in the Review Transactions window.

Validation: None

Destination: None

Resolving Import Exceptions

Review Transactions (US** Vision Services US: USD)**

Transaction Source
Batch Name

Transactions



Transaction Status

☒ Pending
☐ Import -- Rejected
☐ Pre Import -- Rejected
☐ Post Import -- Rejected
☐ All

Project Number	Task Number	Expnd Ending Dat	Expnd Item Date	Expnd Type	Expnd Type Cl	Employee Num
Cost Reimburs	1.1.1	05/16/1999	05/13/1999	Consulting	VI	
Time & Materia	1.1	05/16/1999	05/11/1999	Consulting	VI	31
Cost Reimburs	1.1.1	05/16/1999	05/13/1999	Consulting	VI	
Fixed Price	1.1	03/15/1998	03/13/1998	Supplies	VI	
Time & Materia	2.0	03/15/1998	03/13/1998	Supplies	VI	
Time & Materia	3.0	03/15/1998	03/13/1998	Supplies	VI	
Time & Materia	1.1	05/16/1999	05/11/1999	Consulting	VI	31

The override-to organization is not a valid organization

You must correct rejected transactions before you can load them into Oracle Projects. You can correct transaction data in Oracle Projects using the Review Transactions window, or in your external feeder system before you reload the data.

If you correct exceptions in your external system, you must delete the rejected rows from the interface table before reloading the corrected transactions.

This section describes how to correct rejected data, and describes reports you can use to help resolve exceptions.

Examples of Rejection Reason Codes

Transaction Import may reject importing transactions for a variety of reasons. Examples of rejection reasons and their descriptions are shown in Table 14 – 13:

Rejection Reason	Description
DUPLICATE_ITEM	A transaction with the same transaction source and original transaction reference has already been imported into Oracle Projects (and the transaction source options do not allow duplicate references).
INVALID_END_DATE	The value for the expenditure ending date is not a valid week ending date.
INVALID_PROJECT	No project exists with the project number specified.
ITEM_NOT_IN_WEEK	The expenditure item date for a timecard item does not fall within the timecard expenditure week.
PA_EXP_TASK_TC	The transaction violates an expenditure transaction control at the task level.
PA_EXP_TYPE_INACTIVE	The expenditure item date falls outside the effective dates of the expenditure type. Change the expenditure item date, expenditure type, or expenditure type dates.

Table 14 – 13 Transaction import rejection reasons (Page 1 of 1)

You can get a complete listing of all the rejection reasons from the PA_LOOKUPS table under the lookup type of TRANSACTION REJECTION REASON. The codes are also listed in the *Oracle Projects Technical Reference Manual*.

Viewing Rejected Transactions

Transaction records that fail the validation process remain in the interface table.

If any one expenditure item in an expenditure fails validation, Oracle Projects rejects the entire expenditure and updates each expenditure item in the expenditure with a status of R (Rejected). However, only the expenditure item that was rejected appears on the exception report. Other expenditure items attached to the expenditure being rejected do not appear on the report. Also, the report specifies rejection reasons only for transactions with invalid data. The rest of the expenditures within the batch interface to Oracle Projects. Figure 14 – 3 demonstrates these concepts.

Before Transaction Import:			
	Status	Reason	Expenditure ID
Transaction 1	P		
Transaction 2	P		
Transaction 3	P		

After Transaction Import:			
	Status	Reason	Expenditure ID
Transaction 1 *	R	INVALID_PROJECT	1009
Transaction 2	R		1009
Transaction 3	R		1009

* This is the only item that is displayed on the exceptions report

There are three methods you can use to view rejected transactions:

- Use the Review Transactions window
You can use the Review Transactions window to search for rejected transactions by transaction source or batch name. See: To view rejected transactions: page 14 – 61.
- Use SQL*Plus
You can use SQL*Plus to identify the records that have been rejected by selecting those rows with a TRANSACTION_STATUS_CODE of R and selecting the rejection reason for each rejected record from the TRANSACTION_REJECTION_CODE column.
- Review an Oracle Projects report
The Transaction Import Exception Report shows you all of the transactions that were rejected during the Transaction Import process. For each rejected transaction, this report displays the key field values of the transaction in the interface table. It also displays the rejection reason code that identifies the cause of the transaction's rejection. See: Transaction Import Report: page 11 – 74.

► **To view rejected transactions:**

1. In the Navigator window, choose Expenditures > Transaction Import > Review Transactions.
2. Optionally enter the transaction source or the name of the expenditure batch containing the failed transaction(s).

If you do not enter any search criteria, Oracle Projects will retrieve all rejected transactions, sorted by transaction source and batch name.

3. Choose Find.

Review Transactions Window: Currency–Related Fields

The Review Transactions window is a folder–type window. Many of the currency fields are not displayed in the default folder. You may want to create folders that display the fields you need, for the types of entries you need to make.

For information about folder forms see: Administering Folders (*Oracle Applications System Administrator's Guide*).

Correcting Rejected Transactions within Oracle Projects

If you need to make changes to the source information because of invalid data, you need to delete the rejected rows from the interface table, correct the rejected transactions in the feeder system, and reload them from the feeder system. You can also correct the transaction in the interface table using the Review Transactions window. Oracle Projects automatically updates the status of corrected items and all other transactions in the same expenditure to P (Pending).

The original and updated values for corrected transactions are stored in the audit table PA_TXN_INTERFACE_AUDIT_ALL.

► **To correct and resubmit rejected transactions:**

1. After you use the Review Transactions window to query your rejected transactions, make the changes indicated by the transaction rejection reasons. Oracle Projects validates each transaction and displays any errors before proceeding to the next transaction. Acknowledge each error message by choosing OK if you want to save the transaction with the errors, or choose Cancel and correct the error.
2. Save your work.

3. Choose Import to re-import all the records with a status of Pending for this transaction source and batch. Oracle Projects will validate the transactions online.

You can also use the Review Transactions window to create one or more new transactions without loading them from the feeder system. This window was designed to expedite minor additions to expenditure batches, primarily for testing purposes.

► **To create new transactions:**

1. In the Review Transactions window, choose Edit > New Record.
2. Enter transaction details for the new transaction. The information you must enter depends on the transaction source details, just as when you populate the Transaction Import interface table. See: The Transaction Import Interface Table: page 14 – 34.
3. Save your work.
4. Choose Import to start the Transaction Import process.

Correcting Rejected Transactions Using SQL*Plus

You can alternately update the rejected transactions in the interface table using SQL*Plus. Then update the TRANSACTION_STATUS_CODE column to set the value to P so Transaction Import selects the items the next time you run it. When you resubmit updated transactions for processing, all validation is performed again.

Example: Correcting a Rejected Transaction

Let's walk through an example of the steps you take to correct a rejected transaction using the rejected transaction in Figure 14 – 3 as our sample data.

1. Correct the invalid data for Transaction 1.

The validation process rejected Transaction 1 because the project you are charging is invalid. Using SQL*Plus, you update the project number of the transaction to a valid project number.

2. Run Transaction Import

Now that you have corrected the rejected expenditure item, and the status of all expenditure items within the rejected expenditure is updated, you can run Transaction Import to successfully import the updated transactions.

Auditing Updates in the Interface Table

You can update rejected and pending transactions in the interface table using the Review Transactions window or SQL*Plus. Whenever you update a transaction, the original and revised transactions are stored in the PA_TXN_INTERFACE_AUDIT_ALL table. Each transaction is uniquely identified by:

- The combination of the transaction source and original system reference
- The transaction interface ID (if the transaction source allows duplicate system references)

CHAPTER

15

Advanced Topics and Essays

This chapter includes essays about running Oracle Projects for your business.

List of Essays

The following essays appear in this chapter:

Account Transactions for Revenue: page 15 – 16

Date Processing in Oracle Projects: page 15 – 3

Project and Labor Cost Security in Oracle Projects: page 15 – 13

Reporting Requirements for Project Burdening: page 15 – 21

Organizations in Oracle Projects: page 15 – 41

Support for Multiple Organizations in Oracle Projects: page 15 – 46

Cross Charge and Intercompany Billing: page 12 – 37

Multilingual Support: page 15 – 58

Date Processing in Oracle Projects

Oracle Projects tracks detail transactions for project management and for financial accounting. Each transaction has many dates associated with it to handle the different types of processing and reporting required for these two purposes.

You can report transactions based on:

- when the work was incurred
- when the work was accounted for

The date the work was incurred is used for project and resource management control. The date the work was accounted for is for financial accounting control.

Oracle Projects also tracks dates when transactions were processed in the system for process flow audit.

Dates for Project and Resource Management

For project and resource management control, Oracle Projects maintains the date the transaction was incurred and the expenditure period in which the transaction date falls.

These dates are defined as follows:

Expenditure Item Date

The expenditure item date is the date upon which work was incurred. This date falls between the start date and end date of an expenditure period. For example, if you submit an expense report that includes an expenditure item for air travel incurred on 15-MAR-96, the expenditure item date is 15-MAR-96.

Expenditure Ending Date

The expenditure ending date is the end date of a weekly expenditure period. For example, if you submit a timecard for labor hours worked during the week of 20-MAR-96, the expenditure ending date is 20-MAR-96.

The expenditure periods usually correspond to the expenditure entry cycle of timecard and expense report entry.

Oracle Projects supports weekly expenditure periods. You specify the day of the week for the Expenditure Cycle Start Day in the Implementation Options window.

See Also

Expenditure Cycle Start Day: page 17 – 63

Dates for Financial Accounting

For financial accounting control, you report on general ledger periods (also referred to as GL periods).

You can also report by project accounting periods (also referred to as PA periods) to track project accounting data on a periodic basis, which may be more frequent than your general ledger accounting periods. Your project managers can review timely information by project accounting period; this information reconciles to your financial reporting by general ledger accounting periods.

Oracle Projects maintains the date a transaction was accounted for based on your general ledger periods and your project accounting periods.

These dates are defined as follows:

PA Date

The PA Date is the end date of the project accounting period in which costs, revenue, and invoices are accounted for.

When you initially set up PA periods, it is recommended that PA periods not overlap GL periods. This is explained in detail in *Defining PA Periods*: page 17 – 72.

GL Date

The GL Date is the end date of the GL Period in which costs, revenue, and invoices are accounted for.

Invoice Date

The invoice date applies only to customer invoices, and is the date which appears on the customer invoice. This date is used to calculate the invoice due date according to the customer payment terms.

See Also

Defining PA Periods: page 17 – 72

Dates for Process Flow Audit

Oracle Projects maintains the following dates to track process flow through the system.

Approved Date

The approved date applies only to customer invoices, and is the date on which the invoice was approved.

Oracle Projects sets this date when you approve an invoice in the Invoice Summary or Invoice windows.

Released Date

The released date applies only to revenue and customer invoices, and is the date on which the transaction was approved.

Oracle Projects sets this date when you release an invoice in the Invoice Summary or Invoice windows.

Interface Date

The interface date is the date on which you send cost, revenue, and invoices to other Oracle Applications. Oracle Projects sets this date on the date the interface process runs. The interface date is maintained for each cost distribution line, revenue distribution line, and invoice.

Determining Dates

Oracle Projects determines the various dates during the processing of each transaction.

Expenditure Item Date

Timecards, Expense Reports, Usages, and Miscellaneous Transactions

You enter the expenditure item date when you enter labor, usage, expense report, and miscellaneous transaction expenditure items in Oracle Projects. Each expenditure item has an expenditure item date.

Supplier Invoice Items

You enter the expenditure item date for supplier invoices when you enter the project information for the invoice distribution line in Oracle Payables. If you match the invoice to a purchase order, Oracle Payables copies the expenditure item date from the purchase order distribution line. If you use distribution sets to create invoices in Oracle Payables, the expenditure item date is set to the invoice date.

See Also

Integrating with Oracle Purchasing and Oracle Payables: page 13 – 40

Expenditure Ending Date

Timecards, Usages, Expense Reports, and Miscellaneous Transactions

You enter the expenditure ending date when you enter timecards, usage logs, expense reports, and miscellaneous transactions in Oracle Projects. The expenditure item dates for a labor expenditure must fall between the start and end dates of the expenditure period. The expenditure item date for expense reports, usages, and miscellaneous transactions must fall before or on the expenditure ending date. Each expenditure item is associated with an expenditure which has an expenditure ending date.

See Also

Overview of Expenditures: page 4 – 2

Supplier Invoice Items

Oracle Projects derives the expenditure ending date for supplier invoice items when you interface supplier invoices from Oracle Payables. The expenditure ending date is the ending date of the week the supplier invoice items are interfaced to Oracle Projects.

PA Date

Oracle Projects determines the PA Date when you distribute costs, interface supplier invoices from Oracle Payables, generate revenue, and generate invoices. Projects determines the PA date for each cost distribution line, draft revenue, and draft invoice.

PA Dates are determined according to the following criteria:

Timecards, Usages, Expense Reports, and Miscellaneous Transactions

Oracle Projects derives the PA date when you distribute costs. A PA date is determined for each cost distribution line created for an expenditure item.

The PA Date is set to the end date of the earliest PA period that is on or after the expenditure item date and has a status of Open or Future.

Supplier Invoice Items

Oracle Projects derives the PA date for each supplier invoice cost distribution line when you interface the supplier invoice from Oracle Payables. Each project related invoice distribution line in Oracle Payables becomes a cost distribution line associated with an expenditure item in Oracle Projects.

The PA Date is set to the end date of the earliest PA period that is on or after the expenditure item date and has a status of Open or Future.

You enter the expenditure item date and the GL date when you enter a supplier invoice in Oracle Payables. The PA date is derived during interface to Oracle Projects. In most cases, the PA date is earlier than the GL date. However, for supplier invoices, there are cases where the PA date may be later than the GL date. The conditions under which the PA date may be later than the GL date on a supplier invoice item are as follows:

- You enter an expenditure item date that is later than the GL date of an invoice.
- You close the PA period in which the expenditure item date falls before an item is interfaced to Oracle Projects.

Revenue and Invoices

When generating draft revenue or draft invoices, Oracle Projects derives the PA date for each revenue and invoice. All items associated with the draft revenue and the draft invoice use the PA date of the revenue or invoice.

Oracle Projects determines the PA date for draft revenue and invoices as follows:

1. Looks for the last expenditure item or event completion date on or before the invoice/revenue generation accrue through date.

If your project uses cost-to-cost revenue accrual, the completion date for all events is the revenue generation accrue through date.

2. Determines which PA Period includes the last expenditure item or event completion date.
3. If that PA Period has a status of Open or Future, the PA date is set to the end of that PA Period. Otherwise, Oracle Projects sets the PA date to the end of the next Open or Future PA Period.

GL Date

Oracle Projects determines the GL Date when you interface costs, revenue, and invoices to other Oracle Application products. The GL date is determined for each cost distribution line, each draft revenue, and each draft invoice.

GL Dates are determined according to the following criteria:

Timecard, Usage, and Miscellaneous Transaction Costs

Oracle Projects derives the GL date when you interface costs to Oracle General Ledger. A GL date is determined for each cost distribution line of an expenditure item.

The GL Date is set to the end date of the earliest GL period that is on or after the PA date of the cost distribution line and has a status of *Open* or *Future* according to the period status in Oracle General Ledger.

Expense Report Costs

Oracle Projects derives the GL date when you interface expense report costs to Oracle Payables. A GL date is determined for each cost distribution line of an expenditure item.

The GL Date is set to the end date of the earliest GL period that is on or after the latest PA date of the cost distribution lines included on the expense report and has a status of *Open* or *Future* according to the period status in Oracle Payables. The Oracle Payables Invoice Import program uses one GL date for each expense report loaded into Oracle Payables. Because of this, all cost distribution lines for an expense report must use the same GL date.

Supplier Invoice Costs

Oracle Projects copies the GL date for each supplier invoice cost distribution line from the GL date that you entered for the invoice distribution line in Oracle Payables, when you interface supplier invoices from Oracle Payables. This date may not be the end date of a GL period.

Supplier Invoice Adjustment Costs

Oracle Projects derives the GL date for supplier invoice adjustment distribution lines as it does for timecard, usage, and miscellaneous transaction items, which is explained above.

Revenue

Oracle Projects derives the GL date when you interface revenue to Oracle General Ledger. A GL date is determined for each draft revenue. All items associated with the draft revenue use the GL date of the draft revenue.

The GL Date is set to the end date of the earliest GL period that is on or after the PA date of the draft revenue and has a status of Open or Future according to the period status in Oracle General Ledger.

Invoice

Oracle Projects derives the GL date when you interface invoices to Oracle Receivables. A GL date is determined for each draft invoice.

The GL Date is set to the end date of the GL period that the invoice date of the draft invoice falls within and has a status of Open or Future according to the period status in Oracle Receivables.

Invoice Date

You specify the invoice date of the customer invoice when you release the invoice in the Summary Invoices or Invoices windows. Oracle Projects passes this date to Oracle Receivables when you interface invoices to Oracle Receivables.

Financial Accounting Date Processing

The following steps describe the process of determining the PA date for cost distribution lines, revenue, and invoices, and the GL date for all transactions.

1. If the PA period in which the expenditure item date falls is *Open* or *Future*, Oracle Projects sets the PA Date to the last day of the PA period of the expenditure item date.
2. If the PA period of the expenditure item date is closed, Oracle Projects sets the PA Date to the last date of the next earliest open PA period. (This is particularly applicable to adjustments which are processed after you close the PA period in which the expenditure item date falls.)
3. If the PA period of the expenditure item date is closed and no future periods are open, Oracle Projects will give you an error and the item will not be cost distributed.

Example of Date Processing

You can study the examples below to understand how dates are processed in Oracle Projects.

In the examples that follow, we used weekly PA periods and GL periods based on 5–4–4 calendar periods. The PA Periods correspond to expenditure periods, which are weekly and end on a Sunday.

A labor expenditure for \$100 dated Monday, February 14, 1997 is charged to the third PA Period in February and is processed the same week. That same item is posted in the February GL Period.

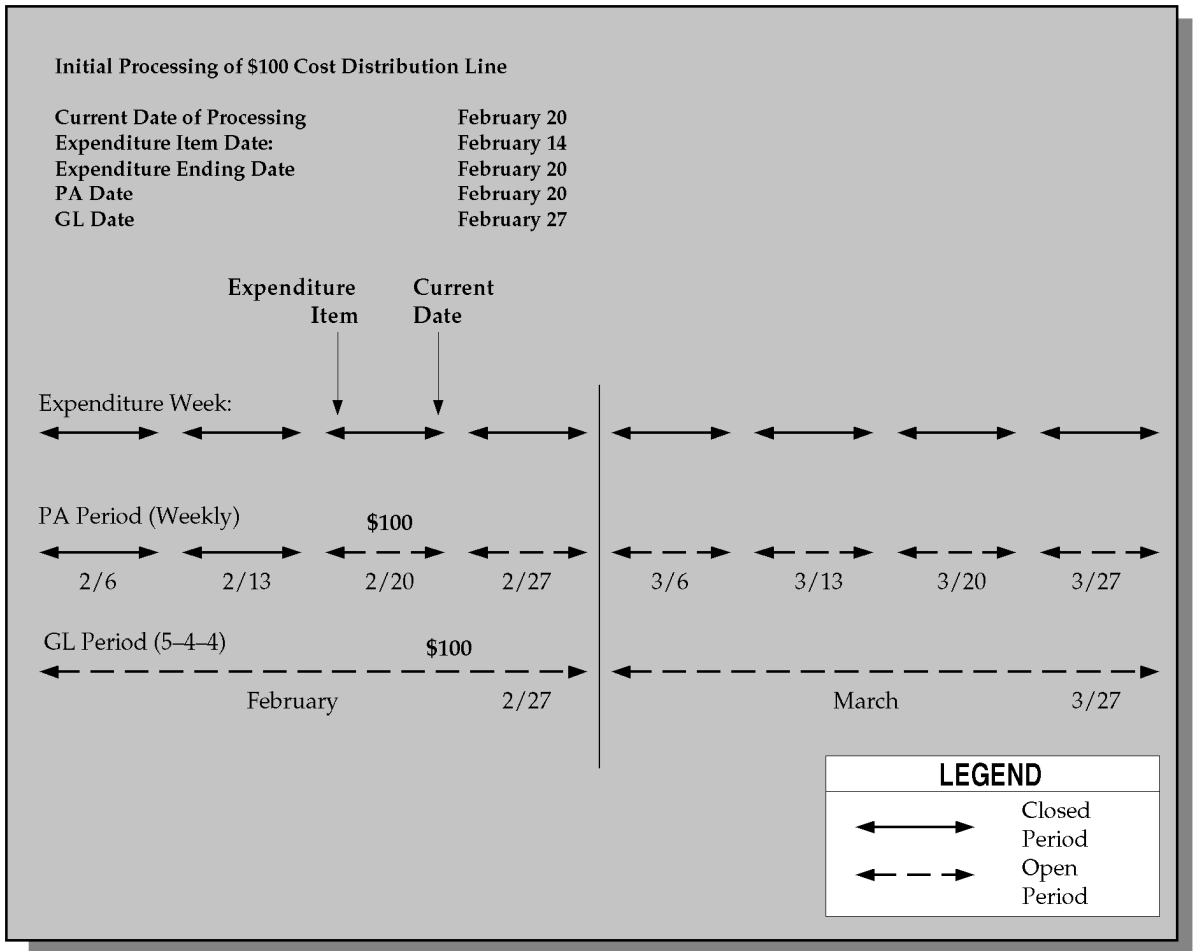
Later, that same expenditure item is re-costed the first week of March due to a retroactive cost rate change. The cost change results in a reversal of the \$100 cost distribution line and the creation of a \$200 cost distribution line. These adjusting distribution lines are accounted for in March periods.

In the examples below, we show you the detailed effect of the initial expenditure item processing on dates, and of the adjustment processing on dates.

Initial Processing of Expenditure Item

The following figure depicts the initial processing of the \$100 expenditure item.

Figure 15 – 1



Oracle Projects creates the following cost distribution line.

Line #	Line # Reversed	Amount	Account	PA Date	GL Date
1		100	04.401.5100	20-FEB-97	27-FEB-97

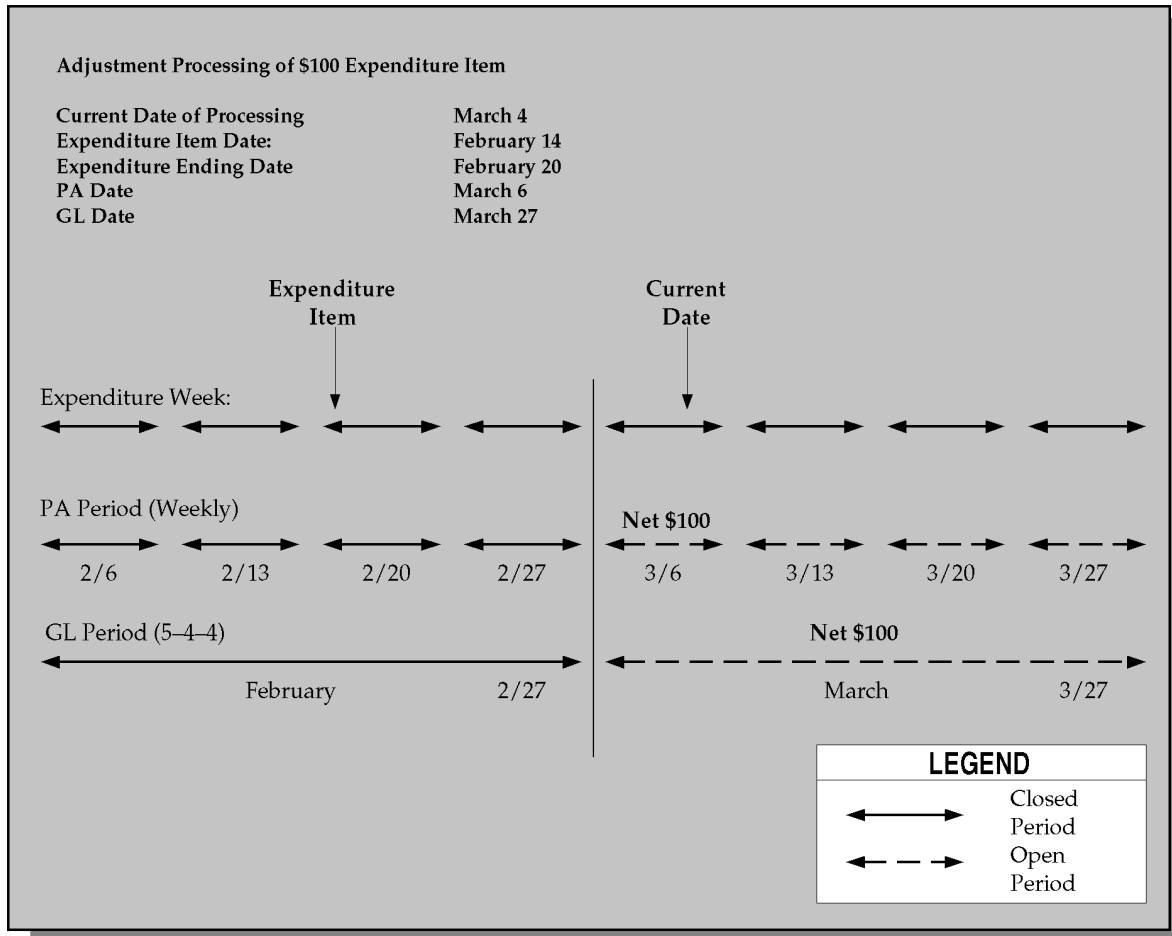
Table 15 – 1 Cost distribution line after initial processing

Adjustment Processing of Expenditure Item

The following figure depicts the adjustment processing of the \$100 expenditure item, resulting in the creation of an adjusting item for \$200

and a reversing item for –\$100, which are accounted for in the same periods.

Figure 15 – 2



Oracle Projects creates two adjusting cost distribution lines (lines #2 and #3) as shown below.

Line #	Line # Reversed	Amount	Account	PA Date	GL Date
1		100	04.401.5100	20-FEB-96	27-FEB-96
2	1	-100	04.401.5100	06-MAR-96	27-MAR-96
3		200	04.401.5100	06-MAR-96	27-MAR-96

Table 15 – 2 Cost distribution lines after adjustment processing

Project and Labor Cost Security in Oracle Projects

Oracle Projects provides three levels of project-based security to protect data ownership and sensitivity in relation to a given project or project template. For each level of security, Oracle Projects enforces default business rules depending on an employee’s relationship to a project, as illustrated below:

Action	Key Member	Cross-Project	Other Users
Query project information	✓	✓	✓
Update project information and perform functions on a project	✓	✓	
View labor costs of detail expenditure items	✓*	✓	
* Only if the user’s project role type is configured to view labor costs.			

Table A – 1 (Page 1 of 1) Security for Enter Projects Window

You can override the default logic or add additional security criteria via the Project Security Client Extension. For a detailed description of the project security extension, see: Project Security Extension: page 19 – 11.

Key members are responsible for the management and administration of the project to which they are assigned. Each key member is assigned a project role type, which describes the type of role that the employee has on the project. Project role types include Project Manager and Project Administrator. You define whether each role type can view labor costs online and in reports.

Cross-project users can view expenditure details and update information for any project, even if they are not assigned as a key member to the project. Cross-project users log in to Oracle Projects under a cross-project responsibility. You define an Oracle Projects responsibility as a cross-project responsibility by setting the PA: Cross-Project Responsibility profile option value to Yes.

View Labor Cost Allowed

This level of security determines whether or not you can view labor costs (both raw and burdened). The default business rule in Oracle Projects is that you may view labor costs if you are:

- A key member for the project and your project role type allows you to view labor costs
- A cross-project user

If you are not permitted to view labor costs, the amount is not shown in the form field; that is, the field will be blank.

How project security and function security work together

Project security controls what projects you can view and update. Function security controls what functions you can perform. Together these two types of security allow you to control the which functions you can perform on which projects. You can perform the functions that are available to you for any projects for which you have access to update the project.

For example, assume you can have access to the function to generate asset lines in the Capital Projects workbench. You can perform this function only on the projects for which you have update access.

You will be able to view labor costs in reports and windows where only summary amounts are shown. Labor cost security applies only at the most detailed level where it can be determined that the entire amount displayed is labor only.

See Also

Function Security in Oracle Projects: page C – 2

Windows Affected by Project and Labor Cost Security

The following table identifies the windows that access project and labor cost security:

Window	Query	Update	View Labor Cost
Project Workbench	✓	✓	
Project Status Inquiry	✓		✓
Budgets	✓	✓	
Capital Projects Workbench	✓	✓	✓
Project Funding Inquiry	✓	✓	
Invoice Review	✓	✓	✓

Table A – 2 (Page 1 of 2) Windows Affected by Project and Labor Cost Security

Window	Query	Update	View Labor Cost
Standard Report Submission (Single Project LOVs)	✓		
Agreements (Funding Zone)	✓	✓	
Expenditure Inquiry	✓	✓	✓

Table A – 2 (Page 2 of 2) Windows Affected by Project and Labor Cost Security

Reports Affected by Project Security

MGT: Expenditure Detail Only key members with labor cost access and cross–project users can view labor cost amounts for labor items.

MGT: Expenditure Summary Only key members with labor cost access and cross–project users can view labor cost amounts for labor items.

See Also

Projects Window Reference: page 2 – 7

Key Members (Project Option): page 2 – 46

Profile Options in Oracle Projects: page B – 2

Project Role Types: page 17 – 191

Client Extensions: page 19 – 2

Accounting Transactions

Each expenditure item’s accounting transactions are held as cost distribution lines. Cost distribution lines are debit amounts. Oracle Projects creates lines for raw costs, burden costs, and/or total burdened costs (depending on your burdening setup). AutoAccounting determines the General Ledger accounts to which Oracle Projects charges transactions.

Oracle Projects allows you to generate draft invoices and draft revenue using separate processes, which you can run at different times. To allow for different billing cycles and revenue accrual, the distribution lines for General Ledger are created during invoice and revenue generation.

During the Generate Draft Invoices process, the account that is credited with the invoice amount is either the unbilled receivables (UBR) account or the unearned revenue (UER) account, depending on whether you accrue revenue before or after you generate invoices.

Accounting Transactions for Cost

The following examples illustrate how Oracle Projects accounts for cost transactions.

Expenditure Type: Labor

Post labor costs:

Oracle Projects creates these transactions when labor is distributed.

Dr.	Raw Labor Costs	100.00	
	Cr. Payroll Clearing		100.00
Dr.	Total Debit (Project Inventory)	200.00	
	Cr. Total Credit (Transfer Out)		200.00

Pay timecard

These entries are created by your payroll system.

Dr.	Payroll Clearing	100.00	
	Cr. Cash		100.00

Expenditure Type: Expense

Post expense costs

Oracle Projects creates these transactions and sends them to Oracle Payables. Oracle Payables sends them to Oracle General Ledger.

Dr.	Expense	100.00	
	Cr. AP Liability		100.00

Pay expense report

Oracle Payables creates this entry when you reimburse employees for their expenses,

Dr.	AP Liability	100.00	
	Cr. Cash		100.00

Expenditure Type: Usage

Post usage costs

Oracle Projects creates this entry when usage distribution is processed.

Dr.	Usage Costs	100.00	
	Cr. Usage Clearing (Transfer Out)		9,205.00

See Also

Accounting for Burden Costs: page 5 – 36

Accounting Transactions for Revenue

The following examples illustrate how Oracle Projects accounts for revenue transactions.

Revenue

Once revenue is created, Oracle Projects runs AutoAccounting to determine the appropriate general ledger accounts. AutoAccounting selects all of the AutoAccounting parameters for each item or event,

determines the account coding, validates the account coding against the general ledger, and updates each revenue distribution line with the appropriate account.

Any items or events that fail in AutoAccounting are marked accordingly, and the associated draft revenue is marked with a generation error. See: Overview of AutoAccounting: page 17 – 237.

Invoice

When invoices are interfaced to Oracle Receivables, Oracle Projects runs AutoAccounting to determine the appropriate general ledger accounts.

Invoice

Oracle Projects creates this entry when the Interface Invoices to Oracle Receivables process is run.

Dr.	Receivables	200.00	
	Cr.	Unbilled Receivables and/or Un-earned Revenue	200.00

Collections

Oracle Receivables creates this entry.

Dr.	Cash	200.00	
	Cr.	Receivables	200.00

Examples of Revenue and Invoice Accounting Transactions

Example 1: Accrue prior to billing

Dr.	Unbilled Receivables	200.00	
	Cr.	Revenue	200.00

Revenue

Dr.	Receivables	200.00	
	Cr.	Unbilled Receivables	200.00

Invoice

Example 2: Invoice prior to accrual

Dr.	Receivables	200.00	
	Cr. Unearned Revenue		200.00
Invoice			
Dr.	Unearned Revenue	200.00	
	Cr. Revenue		200.00
Revenue			

Example 3: Accrue prior to invoicing and invoice partial amount of work

Dr.	Unbilled Receivables	200.00	
	Cr. Revenue		200.00
Revenue			
Dr.	Receivables	100.00	
	Cr. Unbilled Receivables		100.00
Invoice			

Example 4: Pre-bill and accrue more than pre-bill

Dr.	Receivables	200.00	
	Cr. Unearned Revenue		200.00
Invoice			
Dr.	Unearned Revenue	200.00	
Dr.	Unbilled Receivables	100.00	
	Cr. Revenue		300.00
Invoice			

Accounting Transactions for Cost Accrual

With revenue-based cost accrual, you initially account for the raw or burdened costs incurred as an asset in a cost work in process (WIP)

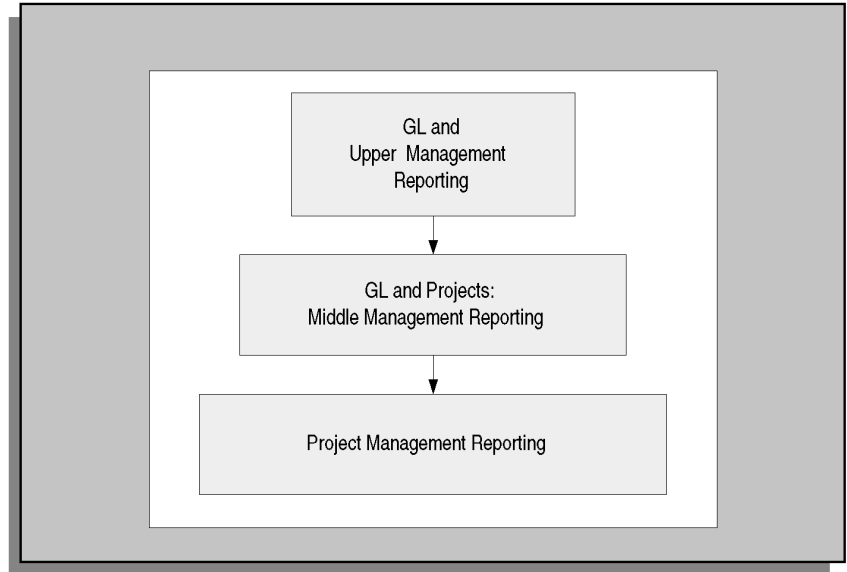
account. When you accrue revenue, the costs are recognized as expense via cost accruals.

For detailed examples of cost accrual transactions, see: Cost Accrual Accounting Entries: page 8 – 81.

Reporting Requirements for Project Burdening

There are generally three levels of reporting requirements for project costs, as shown in the figure below:

Figure 15 – 3 Project costs reporting pyramid



Oracle Projects provides several ways to set up burdening to serve project reporting needs. For example:

- You can show burden transactions individually a project, and also record the detail transactions in the general ledger.
- You can charge burden costs to internal projects to provide visibility within Oracle Projects of total recovered overhead costs.
- You can choose not to view the individual burden transactions in Oracle Projects, while charging total burdened cost to project inventory in the general ledger.

GL and Upper Management Reporting

During the financial cycle, the financial reports (income statement and balance sheet) provide a summary view of a company's fiscal performance. Before the beginning of a new fiscal year, the company

develops budgets for the coming year based on the prior year's performance, as well as expectations and plans for the coming fiscal year. The accountants review the total budgeted burden costs such as overhead, fringe, and G&A (general and administrative). They then estimate, for each project type, the burden multipliers and basis (such as labor hours) for applying the burden.

An overhead cost may be associated with the entire company and therefore must be shared across organizations. A burden multiplier algorithm can be implemented to distribute (burden) overhead costs to selected organizations and/or projects. To monitor the burdening of projects, the costing processes must capture the burden information. Management reports must track the recovery of overhead, identify overhead costs that have been insufficiently or excessively recovered ("unders" and "overs"), and show comparison ratios such as actual revenue to actual total cost, and budget to actual cost.

In the income statement and balance sheet in Figure 15 – 4 and Figure 15 – 5, overhead is recovered at the general ledger level. These statements do not reflect the use of project burdening.

Figure 15 – 4 Income statement showing overhead recovered in GL

INCOME STATEMENT	
Revenue	100
Direct Cost of Projects	<u><30></u>
Contribution Margin 1	70
Burden 1 Cost (Project Indirect Cost)	<u><10></u>
Contribution Margin 2	60
Burden 2 Cost (Corporate Expense)	<u><27></u>
PROFIT	33
	=====

Figure 15 – 5 Balance sheet showing overhead recovered in GL

BALANCE SHEET		
Assets		
Project Inventory		200
Construction in Progress (CIP)		<u>138</u>
TOTAL ASSETS		338
		=====
Liabilities		
Accounts Payable		75
Equity		
Owners' Shares & Retained Earnings	230	
"Raw Cost" Profit	<u>33</u>	
		263
TOTAL LIABILITIES AND EQUITY		338
		=====

In these financial statements, project expenditures are charged directly to projects and are subtracted from revenue to produce the Contribution Margin 1. Overhead (project indirect cost) is subtracted from Contribution Margin 1 to produce Contribution Margin 2. Corporate expense is then subtracted, to determine the profit.

If overhead is recovered at the project level, expense components of the income statement are reclassified as direct project cost elements. This provides management with an alternative view of the cost of doing business.

Burden Multiplier Algorithm

The cost of doing business may vary from department to department or from project to project. How you apply burden costs can be driven directly by how much overhead an organization or project incurs. You typically determine the burden multiplier based on a forecast of the amount of overhead cost incurred.

Following is an example of a burden multiplier algorithm:

Cost Element	Cost	Reference / Formula
Raw Labor (1 hour)	10	A
Burden 1 (30%)	3	$B = A \times .3$
Burden 2 (69%)	9	$C = (A+B) \times .69$
Total Labor	22	$D = A + B + C$

Table 15 – 3 (Page 1 of 1) Burden multiplier algorithm

In this algorithm, indirect costs (Burden 1) are weighted at a rate of 30% of an employee's hour of labor. Burden 2 is weighted at 69% of a labor hour after Burden 1 is applied.

If the algorithm shown in Table 15 – 3 were implemented in Oracle Projects, the financial statements would be restated to show overhead recovery, as shown in Figure 15 – 6 and Figure 15 – 7.

Figure 15 – 6 Reclassified income statement

INCOME STATEMENT		
Revenue		100
Cost of Projects (Total Cost Incurred Including Overhead)		<58>
Contribution Margin 1		42
Burden 1 Cost	<10>	
Less:		
Recovered Income Statement	7	
Recovered Balance Sheet	<u>2</u>	
		<1>
Contribution Margin 2		41
Burden 2 Cost	<27>	
Less:		
Recovered Income Statement	21	
Recovered Balance Sheet	<u>5</u>	
		<1>
PROFIT		40
		=====

Figure 15 – 7 Reclassified balance sheet

BALANCE SHEET			
Assets			
	Project Inventory	200	
	Plus Burden Cost	<u>5</u>	205
	Construction in Progress (CIP)	138	
	Plus Burden Cost	<u>2</u>	<u>140</u>
	TOTAL ASSETS		345
			=====
Liabilities			
	Accounts Payable		75
Equity			
	Owners' Shares & Retained Earnings		230
	Plus "Burdened" Profit	<u>40</u>	<u>270</u>
	TOTAL LIABILITIES AND EQUITY		345
			=====

Accounting Transactions for Burden Cost Reporting

Examples of typical payables, purchasing, and general ledger transactions that result in cost reporting in the general ledger are shown below:

Direct, Burden 1 and Burden 2 Costs		Debit Account	Credit Account
AP/PO	Material Purchase – Raw Cost	Cost of Project	
			AP Liability
AP/PO	Stationery Purchase – Burden 1	Stationery	
			AP Liability

Table 15 – 4 (Page 1 of 2) Cost-related transactions

Direct, Burden 1 and Burden 2 Costs		Debit Account	Credit Account
GL	Interest Expense – Burden 2	Interest Expense	
			Bank

Table 15 – 4 (Page 2 of 2) Cost-related transactions

The following Oracle Projects transactions are used to offset the above overhead entries. Labor hours are used as the cost basis for applying overhead.

Generated Transactions	Debit Account	Credit Account
Labor Hour	Labor Expense	
		Payroll Clearing
Burden 1	Project Burden 1	
		Burden 1 Recovered
Burden 2	Project Burden 2	
		Burden 2 Recovered

Table 15 – 5 (Page 1 of 1) Overhead offset entries

Burdening Options for General Ledger Accounting and Reporting

Oracle Projects provides the following options for accounting for and reporting project burdening in the general ledger:

1. Track burden amount for each burden cost code
2. Show burdening in one account
3. Show total burdened cost as one sum
4. Show total burdened cost as one sum, and expense project burden
5. No burden tracking in GL

Following are descriptions of these options.

In the examples in this document, we use a three-segment general ledger account. The segments are company, cost center, and account. Because all transactions occur within the same company, the journal entries show only the cost center segment and account.

GL Option 1: Track Burden Amount for Each Burden Cost Code

In this option, each burden transaction (Burden 1 and Burden 2 in our example) is charged to a general ledger account set up for the appropriate burden cost code. This provides visibility to overhead recovery information at the burden cost code level.

The burden transactions can optionally be charged (debited) to the same account as the raw cost, but the credit transaction will go to a recovery account set up for each burden cost code.

In Table 15 – 6 and the other tables illustrating generated transactions, the "Type of Account" column shows whether each account is an income statement (I.S.) or balance sheet (B.S.) account. This information illustrates our examples only. Your installation may have different requirements, and therefore your AutoAccounting setup may be different.

Generated Transactions	Cost Center Segment	Account	Dr.	Cr.	Type of Acct
Labor Costs	Project Organization	Project Expense	20		I.S.
	Expenditure Org.	Payroll Clearing		20	I.S.
Burden 1	Project Organization	Project Burden 1	6		I.S.
	Expenditure Org.	Burden 1 Recovered		6	I.S.
Burden 2	Project Organization	Project Burden 2	18		I.S.
	Expenditure Org.	Burden 2 Recovered		18	I.S.
Usage Cost	Project Organization	Project Expense	100		I.S.
	Expenditure Org.	Usage Clearing		100	I.S.

Table 15 – 6 (Page 1 of 1) Track each burden cost code

GL Option 2: Show Burdening in One Account

In this option, burden is accounted for separately from raw cost, for reconciliation and reporting purposes. It is recovered in one recovery account. A separate account is not required for each burden cost code.

The balance in the Burden Recovered account is the summary burden cost. The Project Inventory balance is total burdened cost (raw cost + burden cost).

Generated Transactions	Cost Center Segment	Account	Dr.	Cr.	Type of Acct
Labor Costs	Project Org.	Project Inventory	20		B.S.
	Expenditure Org.	Payroll Clearing		20	I.S.
Overhead (Burden 1 and Burden 2)	Project Org.	Project Inventory	24		B.S.
	Expenditure Org.	Burden Recovered		24	I.S.
Usage Cost	Project Org.	Project Inventory	100		B.S.
	Expenditure Org.	Usage Clearing		100	I.S.

Table 15 – 7 (Page 1 of 1) Burdening in one account

GL Option 3: Show Total Burdened Cost as One Sum

As in GL option 2, the net balance in the Burden Recovered account is the summary burden cost (24), and the Project Inventory balance is the total burdened cost (Labor=44, Usage=100). However, the amount for each burden cost code is not visible in the general ledger.

Generated Transactions	Cost Center Segment	Account	Dr.	Cr.	Type of Acct
Raw Cost:					
Labor Costs	Expenditure Org.	Burden Recovered	20		I.S.
	Expenditure Org.	Payroll Clearing		20	I.S.
Usage Cost	Expenditure Org.	Usage Expense	100		I.S.
	Expenditure Org.	Usage Clearing		100	I.S.
Total Burdened Cost:					
Labor Costs	Project Org.	Project Inventory	44		B.S.
	Expenditure Org.	Burden Recovered		44	I.S.
Usage Cost	Project Org.	Project Inventory	100		B.S.
	Expenditure Org.	Usage Transferred Out		100	I.S.

Table 15 – 8 (Page 1 of 1) Total burdened cost as one sum

GL Option 4: Show Total Burdened Cost as One Sum, and Expense Project Burden

For this option, total burdened cost is shown as one sum, as in GL option 3. In addition, total overhead costs, summarized by burden cost code, are accounted as expense. With this method, the Project Inventory account shows the total burdened cost, but details of the burden (by burden cost code) are stored separately for burden recovery purposes.

Generated Transactions	Cost Center Segment	Account	Dr.	Cr.	Type of Acct
Raw Cost:					
Labor Costs	Expenditure Org.	Burden Recovered	20		I.S.
	Expenditure Org.	Payroll Clearing		20	I.S.
Usage Cost	Expenditure Org.	Usage Expense	100		I.S.
	Expenditure Org.	Usage Clearing		100	I.S.
Total Burdened Cost:					
Labor Costs	Project Org.	Project Inventory	44		B.S.
	Expenditure Org.	Burden Recovered		44	I.S.
Usage Cost	Project Org.	Project Inventory	100		B.S.
	Expenditure Org.	Usage Transferred Out		100	I.S.
Total Overhead Costs:					
Burden 1	Expenditure Org.	Burden 1 Expense	6		I.S.
	Expenditure Org.	Burden 1 Recovered		6	I.S.
Burden 2	Expenditure Org.	Burden 2 Expense	18		I.S.
	Expenditure Org.	Burden 2 Recovered		18	I.S.

Table 15 – 9 (Page 1 of 1) Expense project burden

GL Option 5: No Burden Tracking in GL

In this option, the project managers need to track burden but upper and accounting managers do not.

Using this option, the burden cost journals in the general ledger net to zero. Only the raw cost is shown in the Project Inventory balance.

Generated Transactions	Cost Center Segment	Account	Dr.	Cr.	Type of Acct
Labor Costs	Project Org.	Project Inventory	20		B.S.
	Expenditure Org.	Payroll Clearing		20	I.S.
Usage Cost	Project Org.	Project Inventory	100		B.S.
	Expenditure Org.	Usage Clearing		100	I.S.
Total Burdened Cost	Expenditure Org.	Burden Recovered	24		I.S.
	Expenditure Org.	Burden Recovered		24	I.S.
Usage Cost	Expenditure Org.	Usage Clearing	100		I.S.
	Expenditure Org.	Usage Clearing		100	I.S.

Table 15 – 10 (Page 1 of 1) No burden tracking In GL

Middle Management Reporting

As shown in Figure 15 – 3, middle management relies on both Oracle Projects and the general ledger for their required information.

A division or department manager looks for project information at the summary projects level. This manager may want to see total project burdening by burden cost code (Burden 1 and Burden 2), as shown below:

All Projects	Total
Revenue	60
Raw Cost	<18>
Burden 1	<5>
Burden 2	<17>
Contribution Margin	20

Table 15 – 11 (Page 1 of 1) Total project burdening by burden cost code

Or, the division or department manager may want to see only the total burdened costs of all projects, as shown below:

All Projects	Total
Revenue	60
Total Cost of Projects	<40>
Contribution Margin	20

Table 15 – 12 (Page 1 of 1) Total project burdening

Project Management Reporting

During a project life cycle, project managers review project information in the Oracle Projects application. They review comparison ratios (revenue to cost, budget to actual, etc.) for each project and /or for all projects in a division or department.

The project manager and accounting manager may want to view the same level of detail for projects as for GL accounts, or their needs may be different.

A project manager is concerned about revenue and cost on an individual project basis. How is the project doing compared to the budget? When burden recovered in the project, at the expenditure item level, the project manager can review total project cost on an ongoing basis.

A project manager may want to see the burden cost on a project by burden cost code (Burden 1 and Burden 2), or may only want to see total burdened cost (raw + burden).

Burdening Options for Project Reporting

Oracle Projects provides flexible options to provide solutions for different project reporting requirements. Some examples of these requirements are:

- Burden costs are visible on each project
- Budgeting is done by burden cost code
- Only total cost needs to be visible on a project
- A project requires separation of raw cost and burden cost for a complete project management picture

The following burdening options are provided by Oracle Projects for project reporting.

1. Burden transactions on the original project/task
2. Total burdened cost and separate burden transactions
3. Total burdened cost only

These options are described below.

In the examples, labor costs are burdened with Burden 1 and Burden 2, and usage costs are not burdened. This rule is for these examples only — In practice, usage can be burdened. The examples are designed this way because

- it is a common practice to burden labor but not usage, and
- with this scenario we can illustrate how both burdened and non-burdened transactions are handled in each example.

Projects Option 1: Burden transactions on the original project/task

In this option, summarized burden transactions are shown on the same project/task as the original expenditures.

Using this option, the project manager can view the total project cost, and can also view the burden costs separately from the raw cost.

Table 15 – 13 shows this information as it might be viewed in Project Status Inquiry or in a custom report.

Project ABC Cost	Raw Cost	Burdened Cost
Labor Cost (Employee 1)	10	10
Labor Cost (Employee 2)	10	10
Burden 1 (30%)	0	6
Burden 2 (69%)	0	18
Total Labor Cost	20	44
Usage Cost	100	100
Total Burdened Cost	120	144

Table 15 – 13 (Page 1 of 1) Burden transactions on the original project/task

Projects Option 2: Total burdened cost and separate burden transactions

In this option, the project shows total burdened cost for each burdened expenditure. Summarized burden transactions are shown on a separate project.

Using this option, analysis and reporting on burden are done on an overview basis, not project by project. Budgeting can be done by burden cost code on the separate project. This enables budget-to-actual analysis of the overall project burden.

Project ABC Cost	Raw Cost	Burdened Cost
Labor Cost (Employee 1)	10	22
Labor Cost (Employee 2)	10	22
Total Labor Cost	20	44
Usage Cost	100	100
Total Project Cost	120	144

Table 15 – 14 (Page 1 of 1) Total burdened cost on the original project

The details of the total burdened cost are visible in database views, as shown in Table 15 – 15. Custom solutions can be developed for individual implementations to report the required details.

Project ABC	Total	Cost Breakdown
Revenue	4	
Total Cost	<3>	Raw 1.5 Burden 1 0.4 Burden 2 1.1
Contribution Margin	1	

Table 15 – 15 (Page 1 of 1) Cost breakdown of total burdened cost

A separate project, Project XYZ, is set up to collect burden transactions on Project ABC and other projects. Table 15 – 16 shows the burden costs collected by project XYZ for the labor cost incurred on project ABC.

In this table, the burden costs are displayed in the Burdened Cost/Burden Element column. While the amounts represent only the

burden element, they would be displayed in the Burdened Cost column when viewed in the Project Status Inquiry window.

Project XYZ Cost	Raw Cost	Burdened Cost /Burden Element
Burden 1 (30%)	0	6
Burden 2 (69%)	0	18

Table 15 – 16 (Page 1 of 1) Summary burden transactions on a separate project

Project Option 3: Total burdened cost only

In this option, the project shows total burdened cost. Separate burden transactions are not created.

You can use this option when the project manager does not need to view the burden transactions. Total burdened cost provides the information required to manage the project.

Project ABC Cost	Raw Cost	Burdened Cost
Labor Cost (Employee 1)	10	22
Labor Cost (Employee 2)	10	22
Total Labor Cost	20	44
Usage Cost	100	100
Total Project Cost	120	144

Table 15 – 17 (Page 1 of 1) Total burdened cost

Implementing Burdening to Fit Reporting Needs

The following table shows which pairs of options (Projects and GL) can be implemented to work together. The table shows which setup solution to use for each valid combination.

GL Options:	1. By Burden Cost Code	2. One Account	3. One Sum	4. Expensed	5. Not Tracked
Oracle Projects Options:					
1. Burden transactions on the original project	Setup A	Setup A	n / a	n / a	Setup D
2. Total burdened cost and separate burden transactions	n / a	n / a	Setup B	Setup B	Setup D
3. Total burdened cost	n / a	n / a	Setup C	n / a	Setup D

Table 15 – 18 (Page 1 of 1) Valid combinations of burdening options

Implementing Burden Cost Accounting

This section tells you how to set up these entities for each of the valid combinations shown in Table 15 – 18.

Entities That Affect Burdening

How a project is burdened depends on the setup of the following entities:

1. Burden Cost Code Expenditure Types

The expenditure types you set up to associate with burden cost codes are used only for burden transactions. These expenditure types are referred to as burden cost code expenditure types.

2. Burden Cost Codes

3. Burden Structures

When you define burden structures, you associate expenditure types with each cost base you enter. Therefore, although an expenditure type can be associated with multiple expenditure type classes, the burden structure is based on the expenditure type, not the expenditure type class.

4. Burden Schedules

5. Project Types

6. AutoAccounting for raw, burden, and /or total burdened cost

The instructions that follow tell you how to set up these entities for each project burdening solution.

Maximum Detail (Setup A)

This solution provides maximum visibility of burden costs on the original project, and shows details of the recovered burden in the general ledger.

Use this implementation to set up GL options 1 and 2 with Projects option 1, as shown in Table 15 – 18.

1. **Burden Cost Code Expenditure Types**

In the Expenditure Types window, create an expenditure type for each of the burden cost codes you plan to use. Each expenditure type must have the expenditure type class "Burden Transaction". If you define

each expenditure type with the same name as the corresponding burden cost code, it will make it easier to reconcile and set up AutoAccounting for your burden costs.

2. **Burden Cost Codes**

Assign the burden cost code expenditure types to burden cost codes in the Burden Cost Codes window.

3. **Burden Structures and Burden Schedules**

Create burden structures that map the different burden cost codes to cost bases and expenditure types. Create burden schedules that use appropriate burden multipliers.

4. **Project Types**

Define one or more project types with the following options selected in the Costing Information region:

- Enable the "Burdened" check box and select a burden schedule
- Enable the "Burden Cost as Separate Expenditure Item" check box. This selection generates summarized burden transactions on the same project/task where expenditures are incurred.

5. **AutoAccounting**

Set up AutoAccounting rules for all raw and burden costs.



Warning: Do not enable the rules for Total Burden Cost for this option.

Detail in Oracle Projects, One Sum in GL (Setup B)

With this solution, you report overall burden cost by burden cost code in Oracle Projects. In the general ledger, burden cost will be tracked as one sum. This solution implements Projects option 2, combined with either GL option 3 or GL option 4 (see Table 15 – 18).

1. **Burden Cost Code Expenditure Types**

Create an expenditure type for each of the burden cost codes you plan to use. Each expenditure type must have the expenditure type class "Burden Transaction". If you define each expenditure type with the same name as the corresponding burden cost code, it will make it easier to reconcile and set up AutoAccounting for your burden costs.

2. **Burden Cost Codes**

Assign the burden cost code expenditure types to burden cost codes in the Burden Cost Codes window. This step is necessary only if you have created expenditure types for burdening in step 1 above.

3. **Burden Structures and Burden Schedules**

Create burden structures that incorporate the multiple burden cost codes. Create burden schedules that use appropriate burden multipliers.

4. **Project Types**

Define one or more project types with the following options selected in the Costing Information region:

- Enable the "Burdened" check box and select a burden schedule
- Enable the "Burden Cost on Same Expenditure Item" option and the "Account for Burden Cost Components" check box. This selection generates summarized burden transactions on a separate project as well as total burdened cost on the original expenditure.
- Enter a project/task for the burden transactions.

5. **AutoAccounting**

Set up AutoAccounting rules for all raw, burden, and total burdened costs.

Total Burdened Cost (Setup C)

With this solution, total burdened cost will be shown on the project. The general ledger will show total burdened cost as one sum.

This solution implements Projects option 3 with GL option 3 (see Table 15 – 18).

1. **Burden Structures**

Create burden structures that incorporate the multiple burden cost codes. Create burden schedules that use appropriate burden multipliers.

2. **Project Types**

Define one or more project types with the following options selected in the Costing Information region:

- Enable the "Burdened" check box and select a burden schedule
- Enable the "Burden Cost on Same Expenditure Item" check box. This selection generates total burdened cost balances on each burdened expenditure item.

3. **AutoAccounting**

Set up AutoAccounting rules for all raw, burden, and total burdened costs. Burden transaction accounting is configured to handle one off, manual, or imported burden transactions.

No Project Burden Tracking in GL (Setup D)

With this solution, there is no tracking in the general ledger of burden recovered on projects. This solution implements GL option 5 in Table 15 – 18.

Steps 1 and 2 below are required if the you require visibility of burden transactions on the project. If you only want to report by summary burden cost codes, then these steps are not necessary. For reporting purposes, the individual burden expenditures are available internally.

1. **Burden Cost Code Expenditure Types**

Create an expenditure type for each of the burden cost codes you plan to use. Each expenditure type must have the expenditure type class "Burden Transaction". If you define each expenditure type with the same name as the corresponding burden cost code, it will make it easier to assign expenditure types correctly.

2. **Burden Cost Codes**

Assign the new expenditure types to burden cost codes in the Burden Cost Codes window.

3. **Burden Structures**

Create burden structures that incorporate the multiple burden cost codes. Create burden schedules that use appropriate burden multipliers.

4. **Project Types**

Define one or more project types with the following options selected in the Costing Information region:

- Enable the "Burdened" check box and select a burden schedule

- Projects option 1: If you want to view burden costs as separate transactions on the same project, enable the "Burden Cost as Separate Expenditure Item" check box. This selection generates summarized burden transactions on the same project where expenditures are incurred.
- Projects option 2: If you want to view burden costs on the same project, and collect summary burden transactions on a different project, enable the "Burden Cost on Same Expenditure Item" option and the "Account for Burden Cost Components" check box, and enter the project and task name. This selection generates summarized burden transactions on a separate project while generating total burdened cost on the original expenditure.

5. **AutoAccounting**

Set up AutoAccounting rules for all raw and burden costs.

Although this solution does not require general ledger tracking of burden recovery, Oracle Projects will still interface the burden transactions to the general ledger. To create a net zero transaction, set up AutoAccounting to post the debit and credit to the same account.



Warning: Do not enable the rules for Total Burden Cost for this option.

Organizations in Oracle Projects

This essay explains how Oracle Projects uses organizations and organization hierarchies and how to manage the changes to your Oracle Projects implementation when your organization structure changes. We include a case study to illustrate how to manage an organization structure change in Oracle Projects.

Overview of Organizations

The organizations and organization hierarchies of an enterprise are closely interrelated with the enterprise's policies and procedures. To configure Oracle Projects to meet your business requirements, you must make critical implementation decisions regarding how you set up your organizations in Oracle Projects.

For optimum control, consistency, and trend analysis, it is simplest to keep the organization definitions stable. However, in a dynamic business environment, changes to organizations and organization structures are inevitable. When your organization structure changes, it is very important to understand the implications to your Oracle Projects implementation.

You can change the organization hierarchy setup in Oracle Projects to reflect changes to your company's organization hierarchy. To maintain system control and enforce your business rules, it is important to plan and manage the change carefully. To do this, you must understand how organizations and organization hierarchies are used in Oracle Projects.

Terms Used in This Essay:

Following are definitions of the terms used in this essay.

Organization Classifications A set of system-defined attributes that categorize an organization. You set these attributes when you create the organization in the Define Organization window of Oracle Human Resources. The organization classifications that pertain specifically to Oracle Projects are:

- Project/Task Owning Organization
- Project Expenditure/Event Organization
- Project Invoice Collection Organization

Each organization classification may have additional information that is defined by the system. For example:

- Oracle Projects uses the project burdening hierarchy as additional information about a business group for the project burdening process.
- A project/task owning organization allows you to define what project type class (indirect, capital, or contract) the organization can own.

See *Creating an Organization* Oracle Human Resources User's Guide

Organization Hierarchy A structure that defines the rollup relationships of the organizations within an enterprise. The topmost organization in an organization hierarchy is generally the business group, although this is not required by the system. The parent-child hierarchy relationships can be different (even reversed) in different organization hierarchies that are used for different business purposes.

Organization Hierarchy Version Oracle Human Resources allows you to create multiple versions of an organization hierarchy. When you assign an organization hierarchy in an Oracle Projects implementation, you also assign the version. The following organization hierarchy versions are assigned in Oracle Projects:

- A Project/Task Owning Organization Hierarchy Version is assigned to each operating unit.
- An Expenditure/Event Organization Hierarchy Version is assigned to each operating unit.
- A Default Reporting Organization Hierarchy Version is assigned to each operating unit. This hierarchy version can be overridden at reporting time.
- A Project Burdening Hierarchy Version is assigned to each business group.

Start Organization The branch of your organization hierarchy that you specify in Oracle Projects as the top of your hierarchy. When you choose a start organization as a reporting parameter, the start organization and all organizations below it are included in the report.

Organization Hierarchy Branch The subset of an organization hierarchy that is uniquely identified by the organization hierarchy version and the start organization. For example, in the Fremont Corporation Case Study: page 16 – 31, the Engineering organization hierarchy branch consists of the following organizations: Engineering, Electrical, Mechanical, Structural, and Environmental.

Corresponding to the Organization Hierarchy Versions defined above, the following Organization Hierarchy Branches are assigned to each operating unit:

- Project/Task Owning Organization Hierarchy Branch
- Expenditure/Event Organization Hierarchy Branch

Organizations and Organization Hierarchies in Oracle Projects

You can define the following types of organizations for different uses in Oracle Projects:

Project/Task Owning Organizations

Project/Task Owning Organizations can own projects and /or tasks in the operating unit. To own projects and tasks in an operating unit, an organization must have the following characteristics:

- The Project/Task Owning Organization Classification must be enabled.
- The organization must belong to the Project/Task Owning Organization Hierarchy Branch assigned to the operating unit.

Expenditure/Event Organizations

Expenditure/Event Organizations can own project events, incur expenditures, and hold budgets for projects in the processing operating unit. To have these capabilities in the operating unit, an organization must have the following characteristics:

- The Project Expenditure/Event Organization classification must be enabled.
- The organization must belong to the Expenditure/Event Organization Hierarchy Branch assigned to the operating unit.

HR Organization

Any organization that has the HR Organization classification enabled can have employees assigned to it.

Prior to Release 11, Oracle Projects required the HR organization classification for all project and expenditure organizations. With the additional organization classifications, this restriction is removed. You

don't need to enable the HR organization classification for Oracle Projects unless you want to assign employees to the organization.

Resource Organizations

Resource Organizations are organizations that own resources and/or resource budgets. Any organization in the operating unit's business group can own non-labor resources.

- Only HR organizations can have employees assigned to them.
- Oracle Projects does not have a classification requirement for an organization to own non-labor resources.

Billing Schedule Organizations

Billing Schedule Organizations are organizations that have their own billing schedules.

Any organization in the operating unit's business group can have its own billing schedules.

Project Burdening Hierarchy Organizations

Burdening for costing uses the Project Burdening Hierarchy /Version set up in the business group for both the burden cost code multiplier setup and burdening. You set up different burden schedules if your business allows different ways to burden costs.

- Oracle Projects lets you assign burden multipliers to organizations in the Project Burdening Hierarchy Version. You can only assign burden cost code multipliers to organizations that are in the Project Burdening Hierarchy Version.
- Oracle Projects uses the Project Burdening Hierarchy Version associated with the business group and the burden schedule to calculate burdened cost. If Oracle Projects does not find the expenditure organizations in the Project Burdening Hierarchy Version during burden processing, the expenditure item is not burdened, and the burdened cost is equal to the raw cost.

For more information on burdening for costing, see Burden Schedules: page 5 – 21 and Burdening: page 5 – 16.

Project Invoice Collection Organizations

If your business decentralizes its invoice collection within an operating unit, you must enable the Project Invoice Collection Organizations

classification for each organization in which you want to process invoices.

Oracle Receivables uses transaction types to determine whether a transaction generates an open receivable balance and whether it posts to Oracle General Ledger. Each operating unit in Oracle Projects has at least two default transaction types to process invoices in Oracle Receivables. See *Defining Transaction Types for Invoice Processing*: page 18 – 58.

If your business decentralizes invoice collection, you must run the IMP: Create Invoice Organization Transaction Types process before you can successfully run the Interface Invoices to Oracle Receivables process. The IMP: Create Invoice Organization Transaction Types process creates a transaction type for each of the Project Invoice Collection Organizations that has the following characteristics:

- The organization has the Project Invoice Collection Organization classification enabled.
- The organization belongs to the Project/Task Owning Organization Hierarchy Branch assigned to the operating unit.

Oracle Projects uses the default transaction type if it cannot find a rollup project invoice collection organization for the invoice.

Default Reporting Organization Hierarchy Version

You can specify any Organization Hierarchy Version as the default hierarchy for Oracle Projects to report information associated with a group of organizations. For some reports, the rollup relationships within the Organization Hierarchy Version are used to report the accumulated project activities.

If an organization is missing in the selected Reporting Organization Hierarchy Version, the project activity is not reported.

Case Study: Organization Change in Fremont Corporation: page 16 – 31

Support for Multiple Organizations in Oracle Projects

The implementation of multiple organizations supports multinational enterprises and enterprises with complex organizational structures.

This section describes how to set up Oracle Projects to charge to multiple organizations in a single installation. By setting up Oracle Projects to use multiple organizations, you can:

- Ensure secure data access for each operating unit
- Integrate with other Oracle Applications that support multi-organization processing

See Also

Cross Charge and Interproject Billing: page 12 – 37

Multiple Organizations in Oracle Applications

Definition of Terms

Chargeable Projects

Projects to which expenditures can be charged, transferred, or allocated. A list of values of chargeable projects includes all projects in expenditure operating units and those projects that are eligible for cross charging. See: Cross Charge Control.

Expenditure Operating Unit

The operating unit where the expenditure item was incurred against a project. The expenditure operating unit is the operating unit where the incurring employee submits and gets paid for time and expenses. It is the operating unit into which non-labor resources, commitments, and supplier invoices are entered.

Expenditure Organization

For timecards and expense reports, the organization to which the incurring employee is assigned, unless it is overridden by project or task using organization overrides.

For usage, supplier invoices, and purchasing commitments, the expenditure organization is the organization entered on the expenditure.

Legal Entity

An organization that represents a legal company for which you prepare fiscal or tax reports. You assign tax identifiers and other relevant information to this entity.

Operating Unit

An organization that partitions data for subledger products (AP, AR, PA, PO, OE). It is roughly equivalent to an installation that uses a single organization.

Project Chargeable Employees

Employees included as the labor resource pool to a project. The displayed list of values of project chargeable employees for a project includes all employees, as defined in Oracle Human Resources, who belong to the business group associated with the project operating unit.

Project Burdening Organization Hierarchy

For each business group, the version of organization hierarchy that Oracle Projects uses to compile burden schedules for that business group. Each business group must designate a single organization hierarchy as its project burdening organization hierarchy.

Project Operating Unit

The operating unit within which the project is created.

Project Organization

The organization that owns a project. The project organization can be any organization that owns a project or task and that is displayed in the list of values when the project is defined.

PA Period Type

For each operating unit, the period type associated with the operating unit (the PA Period Type field in the PA implementation options). Oracle Projects uses the periods in the PA Period Type defined in the calendar of the operating unit's set of books to populate each operating

unit's PA periods. The PA periods correspond to GL periods when generating accounting transactions. The PA periods also drive the project summary for Project Status Inquiry.

See: Calendars *Oracle General Ledger User's Guide*

About Multiple Operating Units

Oracle Projects handles multiple operating units (also known as multiple organizations) like this:

- Each project and project template is owned by a single operating unit (the project operating unit).
- Project numbers and project template numbers are unique across all operating units in a single installation.
- Customers are shared across operating units, while customer sites are associated with a specific operating unit.
- Customer agreements are owned by one operating unit and can fund projects within that operating unit only.
- Expenditures can be charged or transferred or allocate to any project as long as the expenditure operating unit and project operating unit is eligible for cross-charging. See: Cross Charge Control and Project Transaction control.
- Costs are entered and processed in the same expenditure operating unit.
 - Expenditures are entered in the expenditure operating unit in Oracle Projects (timecards, expense reports and non-labor resource usage), AP (supplier invoices) or PO (requisitions and purchase orders).
 - Costs are calculated in the expenditure operating unit using cost rates set up for the expenditure operating unit. Costs are burdened based on the project burden schedule.
 - Accounting transactions are generated in the expenditure operating unit, and use the expenditure operating unit's AutoAccounting or Account Generator process.
 - Supplier invoices for a project are interfaced from the expenditure operating unit in Oracle Payables to the same operating unit in Oracle Projects.

- Labor cost is interfaced from the expenditure operating unit in Oracle Projects to the Oracle General Ledger set of books that is associated with the operating unit.
- Expense reports entered in Oracle Projects are interfaced from the expenditure operating unit in Oracle Projects to the same operating unit in Oracle Payables. If the expense report is entered as an invoice in Oracle Payables, it is interfaced from the expenditure operating unit in Oracle Payables to the same operating unit in Oracle Projects.
- The Expenditure Items window can be viewed in either project or cross-project mode:
 - In project mode, the window displays expenditures for a project in the project operating unit.
 - In cross-project mode, the window displays expenditures incurred in the expenditure operating unit.
- Revenue and invoices are processed by the project operating unit against transactions from any expenditure operating units.
 - Draft revenue and draft invoices are calculated in the project operating unit using the project operating unit's bill rates, the project billing rate overrides, or the project labor multipliers.
 - Project costs charged across operating units must be processed in the expenditure operating unit before they can be processed as project revenue and invoices in the project operating unit.

The Project Streamline Process calculates costs for expenditure items incurred in the project operating unit only.

- Accounting transactions for project billing are generated in the project operating unit using the project operating unit's AutoAccounting.
- Revenue is interfaced to Oracle General Ledger under the project operating unit, using the project operating unit's AutoAccounting.
- Invoices are interfaced to Oracle Receivables under the project operating unit.
- Transfers and splits will generate transactions in the same operating unit as the original transaction, although the transfer may be to any chargeable project.

- Reports that can be printed for a single project or a range of projects are submitted from the project operating unit on project-related transactions across expenditure operating units.
- Project summary amounts are processed and stored in the project operating unit. Project Status Inquiry performs queries on projects within the project operating unit.
- Reports for employees or organizations will list all transactions entered within the operating unit from which the report is submitted.
- Each asset is capitalized from a single capital project to an Oracle Assets corporate book that is associated with the project operating unit's set of books.

Adding Operating Units

Many of the steps you perform to implement your first Oracle Projects operating unit define parameters and features that are shared across all operating units. To set up additional operating units, you only need to perform the steps that control parameters for an individual operating unit. Similarly, some Oracle Projects setup steps define parameters that are shared across operating units associated with the same business group. You need perform these steps only once for each business group.

See: Implementation Steps: page 15 – 52 for the steps in the Oracle Projects Implementation Checklist to repeat for each operating unit. If your implementation requires that you integrate Oracle Projects with other Oracle applications, you must set up the other applications for each operating unit that you want to integrate. For comprehensive implementation information for each product, refer to the implementation instructions in the product's User's Guide, and to *Multiple Organizations in Oracle Applications*.

If your organization structure includes multiple business groups, complete the setup for each business group before you perform the setup steps for the related operating units. For instructions on setting up business groups, see the Human Resources setup steps (steps 4 through 9) in the Oracle Projects Implementation Checklist: page 17 – 6.

If your organization uses cross charging and internal billing, see: Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38 and Procedures for Cross Charge and Intercompany Billing: page 12 – 47.

See Also

Oracle Projects Implementation Checklist: page 17 – 6

Oracle Projects Implementation Checklist for Oracle Projects Integration: page 17 – 20

Implementation Steps

For each operating unit you want to add, perform the following steps.

1. Define implementation options

See: Implementation Checklist Step 13: page 17 – 8 and Implementation Options: page 17 – 57.

Each operating unit has its own implementation options. The options determine how data is interfaced with other Oracle applications and controls cross-charging and internal billing across operating units.

Automatic Project Numbering. If you use automatic project numbering, note that project numbers (including project template numbers) are unique across operating units. If a value is entered for next project number, all operating units that use the automatic project numbering method will display the same number.

Automatic Invoice Numbering. Unlike project numbers, invoice numbers are unique within an operating unit, not across operating units. If you use automatic invoice numbering, the next invoice number is specific to the operating unit.

If you are implementing Project Billing, the Invoice Batch Source field (under the Billing tabbed region) is required; Oracle Projects uses the batch source as a context value in the Invoice Transaction flexfield. The default is the Oracle Receivables batch source *Project Invoices* and two transaction types, *PA Invoice* and *PA Credit Memo*. For new operating units, the Receivables batch source *Project Invoices* is replicated automatically.

2. Define PA periods

See: Implementation Checklist Step 14: page 17 – 8 and PA Periods: page 17 – 69.

You define the PA periods you want to use in the calendar associated with your General Ledger set of books. When the PA period type is defined for the operating unit, the system will copy accounting periods from the calendar of the General Ledger set of books. For more information on how to define the period type and accounting periods, see Define Period Types and Adding Periods to a Calendar, *Oracle General Ledger User's Guide*.

Each operating unit maintains its own PA period status. You use the Maintain PA Periods Status window to maintain the period status and

the current reporting period. You can copy additional PA Periods from the calendar by choosing the Copy from GL button. Once a transaction is posted to a PA period from any of the operating units, you cannot change the period date range in the Calendar window.

You must open and save a period before you can define it as the current reporting period.

3. Define cost rates for expenditure types

See: Implementation Checklist Step 22: page 17 – 9 and Expenditure Type Cost Rates: page 17 – 101

Expenditure types are set up once and are shared across all operating units. However, the cost rates for expenditure types are specific to each operating unit. Each operating unit must have cost rates for the expenditure types in which expenditures are expected to be incurred. The cost rates are denominated in the functional currency of the General Ledger set of books for the operating unit.

4. Define usage cost rate overrides

See: Implementation Checklist Step 23: page 17 – 9 and Usage Cost Rate Overrides: page 17 – 102

Non-labor resources are set up once and are shared across all operating units. For each of the non-labor resources that an operating unit may put in service, you must set up a cost rate for the associated expenditure type. If you want to have non-labor resources with different cost rates in different operating units, define usage cost rate overrides for organizations in the business group associated with an operating unit. The cost rates are denominated in the functional currency of the General Ledger set of books for the operating unit.

5. Define employee cost rates

See: Implementation Checklist Step 25: page 17 – 10 and Employee Cost Rates: page 17 – 106

Employees are associated with a business group. An employee's work can be charged to any of the operating units that are associated with the employee's business group. If your business process allows an employee to work in a subset of these operating units, set up labor rates for each of the operating units in which the employee works. You can set up different labor rates for the same employee in different operating units. The cost rates are denominated in the functional currency of the General Ledger set of books for the operating unit.

6. Define bill rate schedules

See: Implementation Checklist Step 38: page 17 – 11 and Bill Rate Schedules: page 17 – 137

Bill rate schedules work similarly to cost rates. Each operating unit must have its own bill rates. You can have different bill rates for the same resource in different schedules of each operating unit. The bill rates in a bill rate schedule are denominated in the functional currency of the General Ledger set of books for the operating unit. For project billing, you can select the bill rate schedule only within the project operating unit. However, you can select any operating unit's bill rate schedule for a transfer price rule. See: Transfer Pricing: page 12 – 21.

7. Define project types

See: Implementation Checklist Step 62: page 17 – 13 and Project Types: page 17 – 196

Set up project types for each operating unit. Each project type is specific to the operating unit and has its own attributes to control project processing by operating unit.

8. Define project templates

See: Implementation Checklist Step 63: page 17 – 13 and Project Templates: page 2 – 16

Like project types and projects, project templates belong to a single operating unit. For each project type class, you must define at least one project template in order to define a project with that project type class. Project templates can only be maintained and copied within an operating unit. However, project template numbers are unique across operating units. A project template number cannot duplicate any project or project template number within the Oracle Projects installation.

9. Set up AutoAccounting for costs

See: Implementation Checklist Steps 75 through 82: page 17 – 15

AutoAccounting rules for costs are set up once for each chart of accounts. However, accounting rule assignments are specific to each operating unit. The multi-organization Replicate Seed Data process will replicate system-defined function transactions in each operating unit you set up. For each operating unit, you must enable cost function

transactions and assign proper accounting rules for Oracle Projects to use when automatically generating your cost accounting entries.

If you use SQL statement rules for your AutoAccounting or Account Generator, use partitioned tables (ending in `_ALL`). Since accounting rules may depend on data elements across operating unit boundaries, using the `_ALL` tables maintains your ability to use the cross-charging feature supported by Oracle Projects in a multiple organization installation.

See Also

Accounting for Labor Costs: page 17 – 260

Accounting for Expense Report Costs: page 17 – 278

Accounting for Usage Costs: page 17 – 283

Accounting for Supplier Invoice Adjustment Costs: page 17 – 289

Accounting for Burdened Costs: page 17 – 271

10. Set up AutoAccounting for revenue and billing

See: Implementation Checklist Steps 83 through 94: page 17 – 15

AutoAccounting rules for revenue and billing are set up once for each Chart of Accounts. However, accounting rule assignments are specific to each operating unit. The multi-organization Replicate Seed Data process will replicate system-defined function transactions in each operating unit you set up. For each operating unit, you must enable the revenue and billing function transactions and assign proper accounting rules for Oracle Projects to use when automatically generating your revenue and billing accounting entries.

If you use SQL statement rules for your AutoAccounting or Account Generator, use partitioned tables (ending in `_ALL`).

See Also

Accounting for Labor Revenue: page 17 – 275

Accounting for Expense Report Revenue: page 17 – 281

Accounting for Usage Revenue: page 17 – 286

Accounting for Supplier Invoices Revenue: page 17 – 292

Accounting for Event Revenue: page 17 – 293

Accounting for Revenue and Invoices: page 17 – 295

11. Define indirect projects for cost collection

See: Implementation Checklist Step 95: page 17 – 17 and Accounting for Indirect Costs: page 17 – 126

Projects are owned by an operating unit. If you want to use Oracle Projects to track costs your operating unit incurs, including work that is not directly associated with project work, you can define as many indirect projects as you need to record indirect costs.

12. Specify profile option values

See: Implementation Checklist Step 70: page 17 – 14 and Profile Options: page 17 – 234

Profile options specify default values that affect system processes, system controls, and data entry. In a multi-organization environment, you can confine a profile option value to a specific operating unit by defining the profile options at the responsibility level. Review the following Oracle Projects profile options to determine if you want to define their values at the responsibility level:

- PA: Cross-Project Responsibility: page B – 7
- PA: Debug Mode: page B – 8
- PA: Default Expenditure Organization in AP/PO: page B – 9
- PA: Default Public Sector: page B – 9

Additional Steps for Operating Units Associated With a New Business Group

The following implementation steps must be performed for each business group.

13. Define project burdening organization hierarchy

See: Implementation Checklist Step 7: page 17 – 8 and Specifying a Project Burdening Hierarchy: page 17 – 44

Oracle Projects uses the project burdening hierarchy defined for each business group to compile burden schedules. Each business group must have a single version of the organization hierarchy designated as its project burdening hierarchy.

14. Define burden schedules

See: Implementation Checklist Step 33: page 17 – 10 and Burden Schedules: page 17 – 117

Set up and compile burden schedules for each business group. Burden schedules are shared among operating units associated with the same business group. If organization burden multipliers are not explicitly defined in the Define Burden Schedule window, they will use the next higher level organization in the Project Burdening Hierarchy defined for the business group as the default.

15. Define resource lists

See: Implementation Checklist Step 52: page 17 – 12 and Resources and Resource Lists: page 17 – 174

Set up resource lists for each business group. Resource lists are shared among operating units associated with the same business group. You can define a resource list by copying it from an existing resource list in the same business group.

Multilingual Support

Oracle Applications supports MLS (Multilingual Support) so you can run Oracle Applications in multiple languages from a single installation of the applications in one database instance.

For a detailed description of the MLS features available in Oracle Applications, see: *Oracle Applications Concepts Manual*.

Oracle Projects enables MLS for all setup information stored in the common lookups table. This includes the following entities:

- Task Service Type
- Budget Change Reasons
- Units of Measure
- Revenue Categories
- Sales Credit Type

MLS for Customer Invoices

You can enter the translated text in the customer's billing language for each invoice line. Oracle Receivables prints the translated text on the invoice when you print the invoice in the customer's billing language.

Every customer invoice generated in Oracle Projects will be linked to the language associated with the Bill Site of the invoice. (The Bill Site field for an invoice is specified for the customer in the Project Customer window, available from the Customers and Contacts option in the Projects window.) You specify the language of the site in the Customers window in Oracle Receivables. For more information, see: *Oracle Receivables Users Guide*.

The system generates invoice line descriptions in the base language. You must enter the translation for this description in the Translated Text field (in the Invoice Lines folder) in the Invoice Lines window. If you have update privileges for the project, you can enter the translated description any time before the invoice is interfaced to Oracle Receivables. You must enter the translation to print the invoice in a customer language that is different from the base language. If you do not enter the translation, the invoice line descriptions print in the base language even if you print the invoice in the customer's language.

For credit memo lines, Oracle Projects copies the translated text from the credited invoice lines. You can change this value subject to the restrictions on invoicing (above).

The translated text is interfaced to Oracle Receivables along with the rest of the invoice. Oracle Receivables uses the translated text and the translated customer name when printing invoices in the customer's language.

Autoaccounting and MLS

If you use lookup sets for any of the following parameters in your AutoAccounting rules, you must set up these lookup sets in the base language only:

- Revenue Category
- Project Organization
- Task Organization
- Task Service Type
- Expenditure Organization
- Non-Labor Resource Org.
- Event Organization
- Provider Operating Unit
- Receiver Operating Unit
- Provider Organization
- Receiver Organization
- Customer Name

Decentralized Invoice Processing and MLS

If you use decentralized processing for your invoices in Oracle Projects and Oracle Receivables, the system creates transaction types in the base language only. This affects your invoicing organizations when you run the PRC: Create Invoice Organization Transaction Types process. You can translate the name from the base language to other languages, as required, in Oracle Receivables.

CHAPTER

16

Case Studies

This chapter contains case studies that illustrate some Oracle Projects features and implementations.

List of Case Studies

The following case studies appear in this chapter:

Comparing Full and Incremental Allocations: page 16 – 3

New Charges Not Allowed: page 16 – 8

Organization–Based Transaction Controls: page 16 – 10

Default Billable Status by Expenditure Type: page 16 – 12

Surcharge: page 16 – 14

Summary Amounts for Reporting: page 16 – 14

Organization Change in Fremont Corporation: page 16 – 32

Case Study: Incremental Allocations

This section includes a case study describing how Fremont Corporation uses incremental allocations:

Case Study: Comparing Full and Incremental Allocations: page 16 – 3

Before you read the case study, you should be familiar with the allocations feature, particularly the concepts of *full allocation*, *incremental allocation*, *period name*, *allocation period type*, and *amount class*.

Case Study: Comparing Full and Incremental Allocations

This case study demonstrates the effects of processing full and incremental allocation rules twice in a single run period.

Setting Up the Rules

Secretarial labor supports all construction projects, so Fremont Corporation records all the overhead costs in a single project, ADMINISTRATION. (Typical overhead costs might include office supplies and project management.)

Fremont wants to allocate amounts proportionately to, or *prorate*, the target projects based on the total raw costs in two construction projects, BUILDING and POWER PLANT.

This case study shows how the results differ when processing the same information using two allocation rules:

- ADMIN FULL uses the full allocation method
- ADMIN INCR uses the incremental allocation method

ADMIN FULL and ADMIN INCR are identical except for the allocation method.

Naming the Rule

Fremont uses the Allocation Rule window to enter a name, description, and other parameters for the rule. The full and incremental rules are identical except for the name and allocation method.

Field	Full Allocation Rule	Incremental Allocation Rule
Name	ADMIN FULL	ADMIN INCR
Description	Administrative overhead	Administrative overhead
Effective Dates	[date]	[date]
Basis Method	Prorate	Prorate
Allocation Method	Full	Incremental
Allocation Period Type	GL	GL
Allocation Transaction Attributes Expnd Org Expnd Type Class Expnd Type	Finance Miscellaneous Allocation	Finance Miscellaneous Allocation
Auto Release	[unselected]	[unselected]
Allow Duplicate Targets	[unselected]	[unselected]

Table 16 – 1 Rule Set Up (Allocation Rule window) (Page 1 of 1)

Fremont has business reasons for the way they set certain fields:

- Allocation Period Type is set to GL so that Fremont can perform allocation based on a monthly accounting cycle.
- Auto Release is disabled, at least initially, so that Fremont can review the results of the draft allocation run before releasing it.
- Allow Duplicate Targets is disabled so that Fremont can let the system prevent duplicate targets.

Source, Target, Offset, and Basis

The two rules use the same source, target, offset, and basis information.

Sources. Fremont collects all administrative costs in a single project, ADMINISTRATION. Fremont uses the amount type "Total Raw Costs."

Field	Entry
Allocation Pool %	100
Fixed Source Amount	[not entered]

Table 16 – 2 Rule Set Up (Sources window) (Page 1 of 2)

Field	Entry
GL Amount Class	PTD
Amount Type	Total Raw Cost
Project <i>[in Line 1]</i>	ADMINISTRATION
<i>[Project Org and other columns]</i>	<i>[unused]</i>

Table 16 – 2 Rule Set Up (Sources window) (Page 2 of 2)

Targets. Fremont wants to allocate the administrative expense to the tasks "Floors" in the BUILDING project and "Generator" in the POWER PLANT project.

Line		Project	Task
1	<i>[Project Org and other columns are unused]</i>	BUILDING	Floors
2		POWER PLANT	Generator

Table 16 – 3 Rule Set Up (Targets window)

Offset. Offsets are optional. Fremont decides not to use an offset for the rules.

Basis. The rules use the Prorate basis method, which computes the proportional allocation of the cost of administration to each construction project. The allocation formula divides the pool amount for each task proportionally, according to the raw costs for each target task.

Field	Entry
Basis Category	Actuals
GL Amount Class	PTD
Budget Type	<i>[unused]</i>
Amount Type	Total Raw Costs
Relative Period	0
Resource List	<i>[unused]</i>
Resource	<i>[unused]</i>

Table 16 – 4 Rule Set Up (Basis window) (Page 1 of 1)

First Allocation Run

On 05-January-97 (in the GL period Jan-97), Fremont generates allocation transactions for the two rules ADMIN FULL and ADMIN INCR for the first time.

- The source pool amount, ADMINISTRATION, contains \$2,000 for this period.
- The tasks in the target projects contain the following raw costs for this period:
 - \$10 in the Floors task (BUILDING project)
 - \$90 in the Generator task (POWER PLANT project)

Recall that the rules prorate the pool amount to the two target tasks based on their raw costs.

After the first run, the two rules have the same results:

<u>Target Project</u>	<u>Task</u>	<u>Raw Cost</u>	<u>Formula*</u>	<u>Total Allocation</u>	<u>Previous Allocation</u>	<u>Current Allocation</u>
BUILDING	Floors	\$10	2000(10 / 100)	\$200	0	\$200
POWER PLANT	Generator	\$90	2000(90 / 100)	\$1,800	0	1,800
Totals		\$100		\$2,000**	0	\$2,000

allocation=source pool amount(raw cost of target task / total raw costs of target tasks)

**amount in source project

Second Allocation Run

A week later, on 12-January-97 (in the GL period Jan-97), Fremont generates allocation transactions for the rules ADMIN FULL and ADMIN INCR a second time.

- The source pool amount has increased by \$2,000, so it now contains \$4,000 for this period
- The tasks in the target project now contain the following raw costs for this period:
 - \$6,000 in the Floors task (BUILDING project)
 - \$4,000 in the Generator task (POWER PLANT project)

During this second allocation run, the differences between the results of the two rules become apparent.

ADMIN INCR Rule, Second Run

In the second run of the ADMIN INCR rule, the amounts allocated to the target for this run (shown in the Current Allocation column) equal

the *increment*, the \$2000 that was added to the source between the first and second run.

<u>Target Project</u>	<u>Task</u>	<u>Raw Cost</u>	<u>Formula*</u>	<u>Total Allocation</u>	<u>Previous Allocation</u>	<u>Current Allocation</u>
BUILDING	Floors	\$6,000	2000(10 / 100)	\$2,400	\$200	\$2,200
POWER PLANT	Generator	\$4,000	2000(90 / 100)	\$1,600	\$1,800	(\$200)
Totals		\$10,000		\$4,000**	\$2,000	\$2,000

allocation=source pool amount(raw cost of target task / total raw costs of target tasks)

**amount in source project

For both the first and second run of the ADMIN INCR rule, the total pool amount is \$4,000. The total allocation amount is \$4,000, which is the sum of \$200+\$1,800+\$2,200 – \$200.

ADMIN FULL Rule, Second Run

The results of the second run of the ADMIN FULL rule show that the \$2,000 that was allocated in the first run was allocated again.

<u>Target Project</u>	<u>Task</u>	<u>Raw Cost</u>	<u>Formula*</u>	<u>Total Allocation</u>	<u>Previous Allocation</u>	<u>Current Allocation</u>
BUILDING	Floors	\$6,000	2000(10 / 100)	\$2,400	\$0	\$2,400
POWER PLANT	Generator	\$4,000	2000(90 / 100)	\$1,600	\$0	\$1,600
Totals		\$10,000		\$4,000**	\$0	\$4,000

allocation=source pool amount(raw cost of target task / total raw costs of target tasks)

**amount in source project

For both the first and second run of the ADMIN FULL rule, the total pool amount is \$4,000. The total allocation amount is \$6,000, which is the sum of \$200 + \$1,800 + \$2,400 + \$1,600. (The quantities \$200 and \$1,800 are from the first run.)

To correct the over-allocation, you can reverse the first run.

For more information, including comments on system performance for incremental allocations, see Incremental and Full Allocations: page 6 – 26.

Case Study: New Charges Not Allowed

This case study demonstrates how to use a client extension to disallow new charges to completed projects.

Business Rule

You have decided that you do not want anyone to charge new transactions to projects for which the work is complete. However, to properly account for project work performed, these projects will allow new transactions resulting from transfers between projects.

Requirements

The business rule will be carried out like this:

- Do not allow new expenditure items to be charged to projects having a project status of *Processing Only*
- Allow expenditure items to be transferred to projects having a project status of *Processing Only*
- Display an error message when a user tries to enter new expenditure items charged to projects having a project status of *Processing Only*
- Do not allow any exceptions to this business rule

You could easily implement an exception to this rule regarding new charges from transfers only. An exception to this rule is to also allow supplier invoice transactions, which are typically received after the project work is complete.

Required Extension

To implement the business rule of controlling new charges to projects for which the work is complete, use the **Transaction Control Extension**.



Suggestion: Review the sample PL/SQL code that corresponds to the implementation of this case study in the file named PAXTTCXB.pls in Oracle Projects admin/sql directory

Additional Implementation Data

You need to define a new project status of *Processing Only*.

Design Considerations

Identifying Transferred Items

You know if the item you are validating is a transfer from another project or task by looking at the value of the `x_transferred_from_id` parameter passed into your extension.

Determining Project Status

The project status is not passed as a parameter to the transaction control extension. Therefore, you need to derive this value from the project ID.

Defining an Error Message

If an item is a new item being charged to a project with a project type having the status of *Processing Only*, you want to display an error message to the user. The user can then change the project assignment of the new expenditure item to a different project.

You define an error message with the text, "You cannot create new items for *Processing Only* projects".

Case Study: Organization–Based Transaction Controls

This case study demonstrates how to use a client extension to set up transaction controls by organization.

Business Rule

You want all administrative work to be charged to tasks that are managed by the employee's organization. When the employee is not specified, charge the administrative work to the expenditure organization.

Requirements

The business rule will be carried out like this:

- Tasks with a service type of *Administration* allow charges only for employees assigned to the same organization as the task-owning organization
- For usages not associated with a specific employee, the expenditure item must have been charged by the same expenditure organization as the task organization
- Display an error message when a user tries to enter an expenditure item that violates this rule
- Do not allow any exceptions to this business rule

You can easily implement an exception to this rule, in which this rule does not apply to any projects that are managed by the *Executive* office. This exception exists because the Executive office uses resources throughout the company to perform important administrative work. The Executive office does not want to set up projects with a task for every organization that may help with the project work.

Required Extension

To implement the business rule of organization–based transaction controls, use the **Transaction Control Extension**.



Suggestion: Review the sample PL/SQL code that corresponds to the implementation of this case study in the file named PAXTTCXB.pls in the Oracle Projects admin/sql directory.

Additional Implementation Data

You need to define a new task service type of *Administration*.

Design Considerations

Determining Incurred by Organization

Since the incurred by organization of each transaction being evaluated is passed to the transaction control extension procedure, you do not need to derive the organization.

Determining Task Organization

Task organization is not passed as a parameter to the transaction control extension. Therefore, you need to derive this value.

Determining Task Service Type

The task service type is not passed as a parameter to the transaction control extension. Therefore, you need to derive this value.

Defining an Error Message

If an item being charged to a task violates this rule, you want to display an error message to the user. The user can then change the task assignment to a different value.

You define an error message with the text, "Only the task-owning organization can charge to this task".

Case Study: Default Billable Status by Expenditure Type

This case study demonstrates how to use a client extension to specify a default billable status based on the expenditure type.

Business Rule

You have decided that you want to implement the business rule that no one can bill entertainment charge to projects.

Requirements

The business rule will be carried out like this:

- Transactions with an expenditure type of *Entertainment* are non-billable for all projects, regardless of the task's billable status
- There are no exceptions to this rule within the client extension; exceptions for negotiated billing of *Entertainment* expenses are marked as billable using the Adjust Project Expenditures form.
- Do not return an error message to the user for any expenditure types of *Entertainment*; simply set the billable status to non-billable for affected transactions.

Required Extension

To implement the business rule of determining the default billable status by expenditure type, use the **Transaction Control Extension**.



Suggestion: Review the sample PL/SQL code that corresponds to the implementation of this case study, view the file named PAXTTCXB.pls in the Oracle Projects admin/sql directory.

Additional Implementation Data

You need to define a new expenditure type of *Entertainment*.

Design Considerations

Deriving Additional Information

Since the expenditure type of each transaction being evaluated is passed to the transaction control extension procedure, you do not need to derive any additional data to implement this business rule.

Determining Billable Status

You can simply code your procedure to look at the `expenditure_type` parameter; if the expenditure type is Entertainment, set the `x_billable_flag` parameter to N to implement this business rule.

Case Study: Surcharge

This case study demonstrates how to use a client extension to add surcharges to project invoices.

Business Rule

The first step in the design process is to determine the business rule that you want to solve using client extensions.

Business Rule: Surcharge

Charge an additional surcharge to an invoice based on a percentage of the labor amount invoiced. This surcharge is referred to as *Communication Charge*.

Business Requirements

After you define the business rule you want to solve using client extensions, list the business requirements behind the business problem. This will help ensure that you are acknowledging all of the aspects of the business problem during the design stage.

- The surcharge is applicable only for projects for which it is negotiated. Project users specify the communication charge when they record the billing terms during project setup.
- You calculate this surcharge as follows:
 - $\text{Surcharge} = \text{Surcharge Percentage} \times \text{Labor Amount Invoiced}$
- Usually, the percentage is 2%. However, some project managers are beginning to negotiate 2.5% or 3% surcharges.

Required Extensions

You have determined that you will create a **billing extension** to automatically handle the Communication Charge within the invoicing cycle.



Suggestion: To review the sample PL/SQL code that corresponds to the implementation of this case study, view the file named PAXITMPS.pls in the Oracle Projects admin/sql directory.

Additional Implementation Data

You must define additional data for this billing extension which includes the following:

- Event type of *Surcharge* with an event type classification of Automatic
- Descriptive flexfield segment on the Communication Charge billing assignments to hold the event description that users can enter to override the default description
- Descriptive flexfield segment on the Communication Charge billing extension to hold the corporate default percentage for communication charge

In addition, you must include the steps to enter a communication charge for projects in your company's procedures manual.

Design Requirements

You must consider and answer these additional questions for your billing extension.

Revenue or Invoice Amount?

Are you calculating a revenue amount, an invoice amount, or both?
Are the amounts generated during revenue accrual, invoice generation, or both?

- The Communication Surcharge generates only an invoice amount during the invoice generation process. There is no effect on revenue.

How is the Amount Calculated?

What are the inputs to the calculation?

$$\text{Surcharge} = \text{Surcharge Percentage} \times \text{Labor Invoiced}$$

What is the Calling Place?

This billing extension is called in both Regular and Adjustment processing, to account for regular transactions and for revenue and invoice credits.

How are the Inputs Derived?

- Surcharge Percentage is entered by a project user who defines the billing terms of the project. This will be entered on the billing assignment. If the percent is not specified, read the corporate default from the descriptive flexfield.
- Labor Amount Invoiced is the labor bill amount on an invoice, excluding overtime billed on the invoice.

How is the Amount Processed?

You need to determine how the amounts are processed for different purposes: 1) for reporting purposes (2) for accounting purposes, (3) for invoicing?

- There are no special reporting requirements
- There is no special accounting effect for an invoicing event.
- The default event description for the billing extension is *Communication Charge*. The project users can override the value by setting the optional descriptive flexfield segment called 'Event Description', which will be used to override the default event description.

Automatic Event Attributes?

You need to determine the various attributes of the automatic event, including: event type, event organization, event description, completion date.

- The event uses the default event type of *Surcharge* from the billing extension definition.
- The event organization is defaulted to the project or task organization. This organization is not used in processing or reporting these events.
- The event description is set as noted in the previous question.
- The completion date is set to the bill through date of the invoice.

When is the Surcharge Billing Extension Used?

Under what conditions is this calculation used? What types of projects? What types of billing terms?

- The communication surcharge is applicable for all projects for which it is negotiated.

How is the Billing Extension Processed for Adjustments?

Adjustments are defined as revenue credits or invoice credit memos, based on other transactions.

- The surcharge must be accounted for on all invoices and invoice credit memos.

Can This Billing Extension be Called with other Billing Extensions?

Can this billing extension be called with other billing extensions on the same project/task? If so, what is the dependency and order of your billing extensions?

- A project can have a communication surcharge along with other billing extensions. The communication surcharge must be processed before the other billing extensions.

What is the Processing if Some Input Values Cannot be Found?

- If no percentage is specified on the billing assignment, use the corporate default value of 2%. This default value is held on the billing extension definition in a descriptive flexfield.
- If no labor is billed, then no surcharge is billed.

How is the Logic Affected if the Inputs Change?

- The surcharge percentage could change, but the user must disable the existing billing assignment and enter a new billing assignment with a new percentage. This new percentage is then automatically processed.

Is there a Limit on the Amount Calculated?

Is there a limit on the amount calculated? If so, what is the logic?

- There is no specific limit on the communication charge.

Funding Level?

Are there implications of the level at which the project is funded – either the project level or the top task level? If so, what?

- There are no special implications.

See Also

Designing Client Extensions: page 19 – 5

Designing Billing Extensions: page 19 – 71

Billing Extension Definition

With the answers from these questions and your understanding of the billing extension definition, you can specify the billing extension definition of Communication Charge. An example is listed below.

The Percentage is not a required input for every billing assignment of Communication Charge, since there is a corporate default percentage that will be used when project users do not enter a negotiated percentage.



Suggestion: You can use the same PL/SQL procedure for another billing extension that uses the same logic of adding a surcharge based on a percentage multiplied by the labor amount invoiced.

Billing Extension

<i>Name</i>	Communication Charge
<i>Procedure</i>	pa_demo_surcharge.execute
<i>Description</i>	Calculate surcharge to invoice based on percentage of labor invoiced
<i>Order</i>	20

Default Event Values

<i>Event Type</i>	Surcharge
<i>Event Description</i>	Communication Charge

Calling Place

<i>Revenue</i>	No
<i>Invoice</i>	Yes

Calling Place

<i>Preprocessing</i>	No
<i>Adjustment</i>	Yes

Regular	Yes
Post-Processing	No
<u>Required Inputs</u>	
Amount	No
Percentage	No
<u>Other Parameters</u>	
Project Specific	Yes
Transaction Independent	No

Testing

You specify the following test cases to use in testing your billing extension procedure.

Scenario	Run	Inv Num	Inv Num Credited	Inv Amt	Invoice Labor Amt	%	Comm Charge Amt
No labor invoiced	1	1		1000	0	2	0
Credit memo	2	2	1	-500	0	2	0
Labor invoiced for first time		3		12000	10000	2	200
Credit memo due to rate change	3	4	3	-5000	-5000	2	-100
Labor with new bill rates		5		6000	6000	2	120
Communication Charge % was changed	4	6		5000	5000	3.5	175
Totals				18500	16000		395

Table 16 – 5 Example Test Cases for Communication Charge (Page 1 of 1)

You now have all of the components of your functional design to give to your technical resource for writing the PL/SQL procedures.

Case Study: Summary Amounts for Reporting

This case study demonstrates summarization of project actual and budget amounts by resource lists and periods.

Background of Market Analysis Project

This case study illustrates how you can maintain project summary amounts and use them for custom reporting.

Project and Work Breakdown Structure

Fremont Corporation has been contracted to perform a market study and present the findings. It is a six week project involving several different resources. The project number is PAR01.

James Robinson is the project manager, and has planned the following project work breakdown structure and resources:

Worksheet WBS Plan				
Task Number	Task Name	Start Date	Completion Date	Planned Resources
1	Analysis			
1.1	Onsite client interviews			Marlin, Travel, Outside Services
1.2	Computer Model			
1.2.1	Create model			Sr. Consultant, In-House Recoverables
1.2.2	Run tests			Sr. Consultant
2	Presentation			Robinson, Travel

Amy Marlin will lead the first phase of the analysis, which is to conduct client interviews at the client site. The client site is located in a different city than Marlin's office; therefore, she will incur some travel costs. Robinson plans to use an outside consulting firm to help with a specialized area of the interview process. He has not yet arranged for a specific outside consulting firm to help with the work, but he knows the dates when they are needed and the amount that he can spend for outside consulting.

The second phase of the analysis is to create and run tests in a computer model based on the input from the client interviews. Robinson knows that it will take the skills of a senior consultant to create and run tests in this model, but he is still looking for an available resource. Creating

and using the model requires extensive computer resources, for which Robinson is reserving one of the high powered, company-owned computers.

Robinson will present the findings to the client after the analysis is complete. He will travel to the client site to give this presentation.

See the worksheet WBS Plan above for the work breakdown of this project.

Project Resource List Assignments

For employee utilization, Fremont Corporation uses these resource lists:

- Labor by Employee and Job, Non-Labor by Expenditure Type
- Labor by Organization, Non-Labor by Expenditure Type

Oracle Projects automatically assigns these lists when you use a project template to create the new project, because they are assigned to the project template.

Fremont Corporation defines the following resource lists:

Resource Lists			
Resource List	Resource Group	Resource	Resource Type
Labor by Employee and Job, Non-Labor by Expenditure Type	Labor	Gray, Donald	Employee
		Marlin, Amy	
		Robinson, James	
		Principal Consultant	Job
		Senior Consultant	
		Staff Consultant	
		Principal Engineer	
		Senior Engineer	
		Staff Engineer	
		Staff Draftsman	
		Staff Clerk	
	Travel	Air Travel	Expenditure Type
		Automobile Rental	
		Lodging	
		Meals	
		Misc Travel Expense	
		Personal Auto Use	
	Outside Services	Consulting	
		Construction	
	Material	Material	
	In-House Recoverables	Computer Services	
		Field Equipment	
		Other Asset	
		Vehicle	
	Other Expenses	Entertainment	
		Equipment Rental	
		Other Expense	
		Other Invoice	
		Supplies	

Resource Lists			
Resource List	Resource Group	Resource	Resource Type
Labor by Organization, Non-Labor by Expenditure Type	Labor	Risk Analysis	Organization
		Data Systems	
		Electrical	
		Mechanical	
		Midwest	
		South	
		East	
		West	
		International	
		Environmental	
		Structural	
		Human Resources	
		Finance	
		Information Services	
	Travel	Air Travel	Expenditure Type
		Automobile Rental	
		Lodging	
		Meals	
		Misc Travel Expense	
		Personal Auto Use	
	Outside Services	Consulting	
		Construction	
	Material	Material	
	In-House Recoverables	Computer Services	
		Field Equipment	
		Other Asset	
		Vehicle	
	Other Expenses	Entertainment	
		Equipment Rental	
		Other Expense	
		Other Invoice	
		Supplies	

Budgets for the Project

Robinson creates the cost and revenue budget for the project.

The following cost budget worksheet shows raw and burdened cost budgets.

Cost Budget						
Resource List:		Labor by Employee and Job				
Budget Entry Method:		Lowest Task, PA Period				
Notes:	Budget by resource					
Task	Resource	Period	Qty.	UOM	Raw Cost	Burdened Cost
1.1	Marlin	P12-02-95	30	Hours	1,500	3,750
	Travel	P12-02-95			1,000	1,200
	Marlin	P12-03-95	30	Hours	1,500	3,750
	Travel	P12-03-95			1,000	1,200
	Outside Services	P12-04-95			5,000	5,000
1.2.1	Senior Consultant	P01-01-96	40	Hours	2,000	5,000
	In-House Recoverables	P01-01-96			500	750
1.2.2	Senior Consultant	P01-02-96	80	Hours	4,000	10,000
2	Robinson	P01-03-96	50	Hours	5,000	12,500
	In-House Recoverables	P01-03-96			1,000	1,000
	Travel	P01-03-96			1,500	1,800
TOTAL:					24,000	45,950

Transactions and Commitments

Transactions and one commitment are charged to the project. A small number of transactions are charged to different employees, across multiple Oracle Projects PA periods, for the duration of the project.

Typically, open commitments are recognized in the current reporting period. To help illustrate this, an open commitment is recognized in the first period of the project. In the last period of the project, the commitment is closed. The effect of opening and closing the commitment is reflected in the exhibits.

TRANSACTIONS														
Incurred by Name	Org.	Expend Ending Date	Type	Project Num.	Task Num.	Non-Labor		Amt.	UOM	Raw Cost	Burdened Cost	PA Period	Resource Mapping	
						Org.	Resource						By Employee and Job	By Org.
ACTUALS														
Marlin	Data Systems	10-Dec-95	Profes-sional	PAR01	1.1			30	hrs.	1,050	3,061	P12-02-95	Marlin, Amy	Data Systems
Marlin	Data Systems	10-Dec-95	Air Travel	PAR01	1.1			800		800	920	P12-02-95	Air Travel	Data Systems
Marlin	Data Systems	17-Dec-95	Profes-sional	PAR01	1.1			30	hrs.	1,050	3,061	P12-03-95	Marlin, Amy	Data Systems
Marlin	Data Systems	17-Dec-95	Air Travel	PAR01	1.1			750		750	863	P12-03-95	Air Travel	Data Systems
Prothia	Data Systems	31-Dec-95	Profes-sional	PAR01	1.2.1			40	hrs.	1,000	2,915	P01-01-96	Sr. Con-sultant	Data Systems
		31-Dec-95	Computer Services	PAR01	1.2.1	Info. Services	Computer	280		280	280	P01-01-96	Computer Service	Data Systems
Prothia	Data Systems	7-Jan-95	Profes-sional	PAR01	1.2.2			80	hrs.	2,000	5,831	P01-02-96	Sr. Con-sultant	Data Systems
		7-Jan-95	Computer Services	PAR01	2	Info. Services	Computer	350		350	350	P01-02-96	Computer Services	Environ-mental
Robin-son	Environ-mental	14-Jan-95	Profes-sional	PAR01	2			50	hrs,	1,500	4,373	P01-03-96	Robinson, James	Environ-mental
Robin-son	Environ-mental	14-Jan-95	Air Travel	PAR01	2			1,450		1,450	1,668	P01-03-96	Air Travel	Environ-mental
COMMITMENTS														
Purchase order created for outside interview consulting firm for period P12-02-95 and interfaced from Accounts Payable to Oracle Projects in period P01-03-96, but posted to P12-02-95														
		10-Dec-95	Consult-ing	PAR01	1.1			5,200		5,200	5,200	P12-02-95	Consulting	Adminis-tration
TOTALS:										15,430	28,522			

Reviewing Amounts in Project Status Inquiry

The project amounts are summarized for the current reporting period of P01-02-96. Fremont Corporation set up the following PA periods:

PA Periods		
PA Period	Start Date	End Date
P12-01-95	27-NOV-95	03-DEC-95
P12-02-95	04-DEC-95	10-DEC-95
P12-03-95	11-DEC-95	17-DEC-95
P12-04-95	18-DEC-95	24-DEC-95
P01-01-96	25-DEC-95	31-DEC-95
P01-02-96	01-JAN-96	07-JAN-96
P01-03-96	08-JAN-96	14-JAN-96
P01-04-96	15-JAN-96	21-JAN-96
P01-05-96	22-JAN-96	28-JAN-96
P02-01-96	29-JAN-96	04-FEB-96
P02-02-96	05-FEB-96	11-FEB-96
P02-03-96	12-FEB-96	18-FEB-96
P02-04-96	19-FEB-96	25-FEB-96
P03-01-96	26-FEB-96	03-MAR-96
P03-02-96	04-MAR-96	10-MAR-96
P03-03-96	11-MAR-96	17-MAR-96
P03-04-96	18-MAR-96	24-MAR-96

Robinson reviews the transactions online in the Project Status Inquiry windows.

Initially, Robinson reviews the summary amounts for the entire project in the Project Status window. Only one row of summary actuals and budgets display on the Project Status window. Note the open commitment amount.

EXHIBIT I:		Initial Project Status View for First Reporting Period								
Current Period:		P01-02-96								
Resource List:		Labor by Employee and Job, Non-Labor by Expenditure Type								
Project	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Actual Cost	ITD Cost Budget	ITD Actual Cost	Variance	Cmt Amount
PAR01	5,750	3,195	10,000	6,181	15,750	9,376	30,650	17,280	13,370	5,200

Then, using the 'Labor by Employee & Job, Non-Labor by Expenditure Type' resource list, Robinson drills down to the Resource Status window to view the major resource groups budgeted for the project. For each resource group, Robinson subsequently drills down again to the supporting second-level resources, actuals and budgets.

EXHIBIT II:		Initial Resource Status View								
Current Period:		P01-02-96								
Resource List:		Labor by Employee and Job, Non-Labor by Expenditure Type								
Resource	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Act. Cost	ITD Cost Budget	ITD Act. Cost	Variance	Cmt Amount
Labor	5,000	2,915	10,000	5,831	15,000	8,746	22,500	14,868	7,632	–
Travel	–	–	–	–	–	–	2,400	1,783	617	–
Outside Services	–	–	–	–	–	–	5,000	–	5,000	5,200
In-house Recoverables	750	280	–	350	350	630	750	630	120	–

EXHIBIT III:		Drilldown to Resources								
Current Period:		P01-02-96								
Resource List:		Labor by Employee and Job, Non-Labor by Expenditure Type								
Resource	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Act. Cost	ITD Cost Budget	ITD Act. Cost	Variance	Cmt Amount
Labor	5,000	2,915	10,000	5,831	15,000	8,746	22,500	14,868	7,632	–
Marlin, Amy	–	–	–	–	–	–	7,500	6,122	1,378	
Robinson, James	–	–	–	–	–	–	–	–	–	
Sr. Consultant	5,000	2,915	10,000	5,831	15,000	8,746	15,000	8,746	6,254	
Travel	–	–	–	–	–	–	2,400	1,783	617	–
Air Travel	–	–			–	–	–	1,783	(1,783)	
Outside Services	–	–	–	–	–	–	5,000	–	5,000	5,200
Consulting	–	–			–	–	–	–	–	5,200
In-house Recoverables	750	280	–	350	750	630	750	630	120	–
Computer Services	–	280		350	–	630	–	630	(630)	–

Robinson also wants to see employee utilization by organization. So, he selects an alternate resource list, 'Labor by Organization, Non-Labor by Expenditure Type'. Subsequently, he drills down from the Project Status window to the second-level resources on the Resource Status window.

EXHIBIT IV:		Alternate Organizational Drilldown to Resources								
Current Period:		P01–02–96								
Resource List:		Labor by Organization, Non–Labor by Expenditure Type								
Resource	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Act. Cost	ITD Cost Budget	ITD Act. Cost	Variance	Cmt Amount
Labor	–	2,915	–	5,831	–	8,746	–	14,868	(14,868)	–
Data Systems	–	2,915	–	5,831	–	8,746	–	14,868	(14,868)	
Travel	–	–	–	–	–	–	–	1,783	(1,783)	–
Air Travel	–	–			–	–	–	1,783	(1,783)	
Outside Services	–	–	–	–	–	–	–		–	5,200
Consulting	–	–			–	–	–	–	–	5,200
In–house Recoverables	–	280	–	350	–	630	–	630	(630)	–
Computer Services	–	280	–	350	–	630	–	630	(630)	–

Summary Amounts After Current Reporting Period Change

When the reporting period changes to P01–03–96, Robinson once again reviews the Project and Resource Status of project PAR01.

The prior period, period–to–date, year–to–date, and inception–to–date actuals and budgets have changed to reflect the new reporting period’s actuals and budgets. The commitment amount no longer appears on the status windows because it is closed in an earlier reporting period.

EXHIBIT V:		Initial Project Status View After Current Reporting Period Change								
Current Period:		P01–03–96								
Resource List:		Labor by Employee and Job, Non–Labor by Expenditure Type								
Project	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Actual Cost	ITD Cost Budget	ITD Actual Cost	Variance	Cmt Amount
PAR01	10,000	6,181	15,300	6,040	31,050	15,416	45,950	28,521	17,429	–

EXHIBIT VI:		Initial Resource Status View After Current Reporting Period Change								
Current Period:		P01–03–96								
Resource List:		Labor by Employee and Job, Non–Labor by Expenditure Type								

Resource	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Act. Cost	ITD Cost Budget	ITD Act. Cost	Variance	Cmt Amount
Labor	10,000	5,831	12,500	4,373	27,500	13,119	35,000	19,241	15,759	–
Travel	–	–	1,800	1,668	1,800	1,668	4,200	3,450	750	–
Outside Services	–	–	–	–	–	–	5,000	5,200	(200)	–
In-house Recoverables	–	350	1,000	–	1,750	630	1,750	630	1,120	–

EXHIBIT VII:		Initial Resource Status View After Current Reporting Period Change								
Current Period:		P01–03–96								
Resource List:		Labor by Employee and Job, Non-Labor by Expenditure Type								
Resource	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Act. Cost	ITD Cost Budget	ITD Act. Cost	Variance	Cmt Amount
Labor	10,000	5,831	12,500	4,373	27,500	13,119	35,000	19,241	15,759	–
Marlin, Amy	–	–	–	–	–	–	7,500	6,122	1,378	
Robinson, James	–	–	12,500	4,373	12,500	4,373	12,500	4,373	8,127	
Sr. Consultant	10,000	5,831	–	–	15,000	8,746	15,000	8,746	6,254	
Travel	–	–	1,800	1,668	1,800	1,668	4,200	3,450	750	–
Air Travel	–	–	–	1,668	–	1,668	–	3,450	(3,450)	
Outside Services	–	–	–	–	–	–	5,000	5,200	(200)	–
Consulting	–	–	–	–	–	–	–	5,200	(5,200)	
In-house Recoverables	–	350	1,000	–	1,750	630	1,750	630	1,120	–
Computer Services	–	350	–	–	–	630	–	630	(630)	–

Summary Amounts After Budget Changes

During the last period of the project, Robinson receives a change order from the clients based on recent negotiations for increased scope, so he can now increase all budgets by ten percent. He baselines the new budget version, reruns the update project summary amounts process, and reviews the status of the project once more.

All prior period, period-to-date, year-to-date, and inception-to-date budgets now reflect a ten percent increase. The actuals remain unchanged.

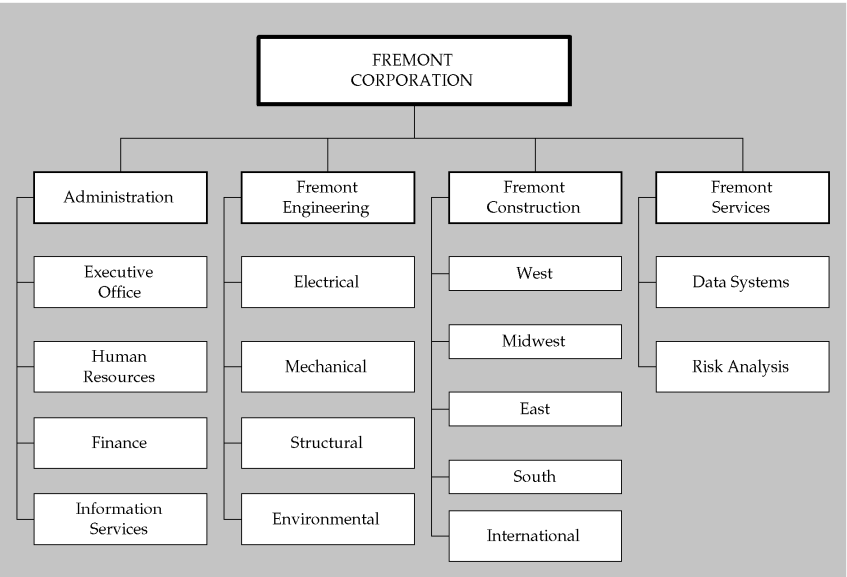
EXHIBIT VIII:		Initial Project Status View After Budgets Baselined for a Ten Percent Across the Board Increase								
Current Period:		P01-03-96								
Resource List:		Labor by Organization, Non-Labor by Expenditure Type								
Project	PP Cost Budget	PP Actual Cost	PTD Cost Budget	PTD Actual Cost	YTD Cost Budget	YTD Actual Cost	ITD Cost Budget	ITD Actual Cost	Variance	Cmt Amount
PAR01	11,000	6,181	16,830	6,040	34,155	15,416	50,545	28,521	22,024	–

Case Study: Organization Change in Fremont Corporation

In this case study, we use Fremont Corporation to demonstrate how to use Oracle Projects to address organization changes.

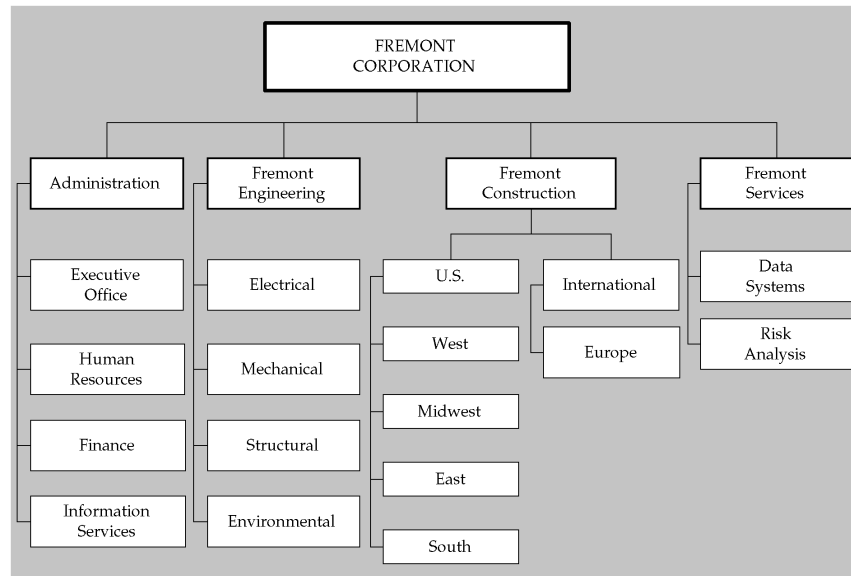
In its original implementation, Fremont Corporation’s organization hierarchy contained four organizations directly subordinate to its business group. The four organizations have several subordinate organizations. Following is an illustration of Fremont Corporation’s initial organization hierarchy:

Figure 16 – 1



Due to the continued growth of its international construction business sector, Fremont Corporation sets up a separate organization for Europe, subordinate to the existing International organization, to manage its European construction projects. The new organization hierarchy is shown in the following illustration:

Figure 16 – 2



Business Assumptions

This case assumes there is no impact from the organization change on a multiple organizations architecture.

For information on multiple organization change, see *Multi-Organization Support in Oracle Projects: page 15 – 46*.

Business Requirements

Fremont Corporation identifies the following requirements for the organization changes:

- The organization changes take effect on 22-Sep-97. This date begins the tenth month and last quarter of fiscal year 1997. See *Defining PA Periods: page 17 – 72*.
- All active Europe projects and their corresponding tasks will be transferred and managed by the Europe organization. The rest of the international projects will still be owned by the International organization.
- Europe will get some resources transferred from International. Europe will also acquire additional resources. Europe will be a cost center that will incur project costs, generate project revenue, and maintain its own budget.

- Europe will have its own billing schedule with a higher international markup.
- Burden Schedules are standardized at Fremont Corporation, and will not require any changes.
- Fremont Construction customer invoices will continue to be processed and collected by Fremont Construction.
- In addition to obtaining reports at each organization level, Fremont Corporation also wants reports at the Fremont Construction level (total construction business) and at the U.S. and International organization levels.

Planning the Organization Change

Oracle Projects provides the flexibility to allow adjustments made to meet real world organization changes. You must plan the necessary setup changes and processes to implement the changes according to your business requirements. Careful planning and analysis will ensure your business objectives are met.

When to Make the Change

Oracle Projects enables you to track project data on both a PA period and GL period basis. To have a clear audit trail for reporting and analysis, most businesses choose a new fiscal month, quarter, or year to implement any organization changes. You must make the necessary setup changes on or after the effective date of the organization change. See: Setup Changes Required for an Organization Change: page 16 – 35.

In our example, Fremont Corporation chooses to have the organization change take effect on 22-Sep-97. Any impacted projects, tasks and transactions that were processed before the system setup changes took place, and whose transaction date is on or after 22-Sep-97, must be adjusted to reflect the organization changes. Following is a summary of actions that Fremont Corporation takes.

Before the Organization Change

Before the changeover date of 22-Sep-97, Fremont Corporation must analyze, plan and document procedures for performing the organization changes. They process project transactions as usual under the old organization setup.

To avoid adjustments, you can optionally delay processing transactions dated on or after the changeover date. However, you can use manual adjustments or the Oracle Projects Mass Update Batch process to adjust the transactions after they are processed.

On or After the Organization Change

Fremont Corporation will complete the following steps on or after the date of the organization change:

1. Process Transactions

Complete normal steps to finish processing transactions that will post to months prior to Fremont Corporation's fiscal month 10 of 1997.

Although not required by the system, you may want to perform steps to close the prior periods. This will prevent transactions from incorrectly posting to the prior GL or PA periods under the new organization setup.

2. Perform Setup Changes

Perform the required changes in your Oracle Projects setup. See *Setup Changes Required for an Organization Change*: page 16 – 35.

3. Assign New Organization to Projects, Tasks, and Transactions

Fremont Corporation must transfer some of the projects and tasks formerly associated with the International organization to the new Europe organization.

They must also change transactions that were processed before the change, but that need to reflect the organization changes. This can be done by performing one or a combination of the following steps:

- Manually update the project / task organization from International to Europe, using the Projects, Templates window. For an audit trail, Oracle Projects will create a mass update batch with a *Manual* prefixed name and *Completed* batch status.
- Manually adjust transactions of affected projects or tasks that are on or after 22-Sep-97 to Europe.
- Prepare the mass update batch. You can prepare the batch by using the Mass Update Batches window or through a customized process. Run the PRC: Mass Update Batch process. Resolve any errors encountered during the process. See: *Mass Update Batches*: page 2 – 64.

The Mass Update Batch process will mark the affected expenditure items. You must manually adjust any outstanding events affected by the organization changes. You must also manually adjust any cost-based or event-based revenue or invoices affected by the organization change.

After making the adjustments, you must run the appropriate cost, revenue and invoice processes. For more detail on revenue and invoice adjustments, see: *Accruing Revenue for a Project*: page 8 – 28 and *Invoicing a Project*: page 8 – 48.

Setup Changes Required for an Organization Change

Some or all of the following implementation steps must be performed when you have an organization change.

1. Define Organizations

Implementation Checklist Step 5: page 17 – 8

- Define a new organization called *Europe*.
 - Enable the HR Organization classification to enable Europe to have employees
 - Enable the Expenditure / Event Organization classification so that Europe can incur project expenditures and have its own budgets and billing schedules.
 - Enable the Project / Task Owning Organization classification so that Europe can own projects.
 - Do not enable the Project invoice Collection Organization classification. Invoices for Europe are processed using transaction types associated with Fremont Construction.
- Define a new organization called *U.S.* No organization classifications are required for the U.S. organization.

2. Define the New Organization Hierarchy

Implementation Checklist Step 6: page 17 – 8

Fremont Corporation must update the organization hierarchy version, according to the new hierarchy.

Organization Hierarchy	Oracle Projects
Version Number	1

Because Fremont Corporation has chosen to standardize the organization hierarchy version for all of its project processing, it only needs to make adjustment to the organization hierarchy named *Oracle Projects*, and the organization hierarchy version number *1*. If Fremont Corporation had originally set up different organization hierarchy versions to meet different business policies, procedures, and processes for its business, each organization hierarchy version would have required updating.

3. Assign a Project Burdening Hierarchy to the Business Group

Implementation Checklist Step 7: page 17 – 8

Fremont Corporation will skip this step, because Fremont Corporation uses the same organization hierarchy version for project burdening that it uses for other business processes.

4. Define Employees

Implementation Checklist Step 9: page 17 – 8

Transfer and add employees to the Europe organization.

5. Define Implementation Options

Implementation Checklist Step 13: page 17 – 8

- If the organization change includes creating a new operating unit, implementation options required for a new operating unit must be set. See Implementation Steps for Each Additional Operating Unit: page 15 – 51
- If the Project / Task Owning Organization Hierarchy Branch of an operating unit will change as a result of the organization change, you must change the organization hierarchy / version and / or start organization assigned to the operating unit.
- If the Expenditure / Event Organization Hierarchy Branch will change, you must change the Expenditure / Event Organization Hierarchy Branch assigned to the operating unit.

- If the Default Reporting Organization Hierarchy Version will change, you must change the Reporting Organization Hierarchy Branch assigned to the operating unit.

Fremont Corporation can skip this step, since none of the above conditions are true for this organization change.

6. Define Cost Rates for Expenditure Types

Implementation Checklist Step 18: page 17 – 9

Update existing expenditure types and add new expenditure types based on the organization change.

Fremont Corporation does not need to add new expenditure types for their organization change. They have already set up standardized expenditure types for the corporation.

7. Define Non-Labor Resources

Implementation Checklist Step 19: page 17 – 9

Define non-labor resources for the new organization(s).

Fremont Corporation must update the non-labor resources PC and Minivan to add Europe as an additional owning organization:

Non-Labor Resource	Description	Expenditure Type	Organization
PC	PC on the HQ network	Computer Services	Europe
Minivan	Site visit minivan	Vehicle	Europe

Table 16 – 6 (Page 1 of 1) Define Non-Labor Resources

8. Define Expenditure Type Cost Rates

Implementation Checklist Step 22: page 17 – 9

Update rates for expenditure types and / or set up new expenditure type cost rates.

Fremont Corporation sets up higher expenditure cost rates for the expenditure type Computer Services, to cover the overall increased cost of supporting the Europe organization.

Expenditure Type	Unit of Measure	New Rate
Computer Services	Hours	10.00

Table 16 – 7 (Page 1 of 1) Expenditure Type Cost Rates

9. Define Usage Cost Rate Overrides

Implementation Checklist Step 23: page 17 – 9

Set up new usage cost rate overrides for the Europe organization.

Fremont Corporation sets up higher cost rates for minivans owned by the Europe organization.

Non-Labor Resource	Expenditure Type	Organization	Usage Cost Rate Override
Minivan	Vehicle	Europe	60.00

Table 16 – 8 (Page 1 of 1) Usage Cost Rate Overrides

10. Define Employee Rates

Implementation Checklist Step 25: page 17 – 10

Define employee rates where required for changed rates and for new employees hired for the Europe organization.

11. Define Burden Schedules

Implementation Checklist Step 33: page 17 – 10

Update and /or add new burden schedules based on the organization change.

Fremont Corporation does not need to define new burden schedules.

12. Define Bill Rate Schedules

Implementation Checklist Step 38: page 17 – 11

Fremont Corporation must define a new bill rate schedule for the Europe organization, because Europe will have higher billing rates.

13. Define Resource Lists

Implementation Checklist Step 52: page 17 – 12

Update resource lists that are affected by the organization changes. Add new organizations to the resource lists that group or maintain resource details by the *organizations* resource type.

14. Define Project Types

Implementation Checklist Step 62: page 17 – 13

Set up new project types you will need, using the new defaults such as bill rate schedules and burden schedules.

15. Define Project Templates

Implementation Checklist Step 63: page 17 – 13

Set up new project templates you will need, using new defaults such as project and task organizations.

16. Set Up AutoAccounting

Implementation Checklist Steps 75 through 94: page 17 – 15

Make changes to the AutoAccounting setup based on the organization change. Fremont Corporation must update the following Lookup Sets:

Modify Lookup Sets:

Name	Organization to Company
Description	Map organization to the appropriate company code

Segment Value Lookups

Intermediate Value (Organization)	Segment Value (Company Code)
Add: Europe	03
Name	Organization to Cost Center
Description	Map organization to the appropriate cost center code

Segment Value Lookups

***Intermediate Value
(Organization)***

Add: Europe

***Segment Value
(Cost Center Code)***

306

17. Modify Client Extensions

Modify any client extensions affected by the change.

Index

A

account generator

- accounting transactions, 13 – 51
- AutoAccounting, and, 17 – 323 to 17 – 330
- expense report, 17 – 311
- functions
 - segment lookup set value, 17 – 320
 - SQL, 17 – 326
- Oracle Payables, for, 17 – 303
- Oracle Purchasing, for, 17 – 302
- overview, 17 – 302
- processes
 - backing up, 17 – 304, 17 – 306
 - renaming, 17 – 322
 - segment lookup value, 17 – 320
 - using FlexBuilder rules, 17 – 306
 - viewing attributes, 17 – 316
- purging runtime data, 17 – 322
- setting up, 17 – 306, 17 – 322
- supplier invoice, 17 – 306
- testing, 17 – 320

accounting flexfields. *See* sets of books

accounting lines, viewing, 4 – 49, 8 – 43

accounting transactions

- capital project costs, 7 – 36
- costs and revenue, 13 – 15
- dates for, 15 – 3 to 15 – 10
- distribution lines, 13 – 51
- expense reports, 13 – 26
- invoices, 13 – 64

Accounts Payable. *See* Oracle Payables

Accounts Receivable. *See* Oracle Receivables

Activity Management Gateway

- See also* transaction import
- data integrity controls, 14 – 4
- function security for, C – 11
- overview, 14 – 2
- product source, 2 – 35
- profile options, 18 – 46
- setting up for Oracle Projects integration, 18 – 71
- Source Products window, 14 – 5
- source reference, 2 – 35

activity-based costing. *See* mass allocations

actuals

- amounts, cost and revenue, 9 – 11
- copying to budget amounts, 3 – 29

addresses

- employee, 17 – 51
- invoice, bill-to and shipping, 8 – 54

adjustments

- assets lines, 7 – 31
- billing. *See* adjustments, invoices
- burden transactions, 4 – 34
- cancelling invoices, 8 – 65
- capital project costs, 7 – 31
- credit memos, 8 – 66
- currency attributes, 4 – 31
- expenditure items
 - converted, 4 – 32
 - marking, 4 – 37
 - multi-currency, 4 – 33
 - overview, 4 – 26
 - types of, 4 – 27 to 4 – 31
 - viewing, 4 – 47
- expense reports, 13 – 36
- interfacing to other products, 4 – 41

- invoices, 4 – 44, 8 – 64, 8 – 65
- mass, 4 – 55
- overtime, 18 – 26
- processing, 4 – 38
- purchase orders, 13 – 55
- requisitions, 13 – 55
- restrictions, 4 – 26
- revenue, 8 – 40
- reversals and, 4 – 34
- supplier invoices, 13 – 55
- advances, 13 – 34
- ADW (Applications Data Warehouse). *See*
Oracle Project Analysis Collection Pack
Implementation Guide
- agreements
 - accruing revenue against, 8 – 34
 - Agreement window, 8 – 6, 8 – 10
 - copying, 2 – 33
 - entering, 8 – 10
 - interfacing to Receivables, 13 – 65
 - types, 10 – 4
 - types of, 17 – 135
 - viewing funding history, 8 – 12
- allocations
 - See also* autoallocations
 - amount class, 6 – 10
 - basis
 - interaction with targets, 6 – 12
 - methods, 6 – 6, 6 – 15
 - cross charge and, 6 – 12
 - extensions
 - basis, 19 – 137
 - dependencies, 19 – 140
 - descriptive flexfield, 19 – 138
 - offset projects and tasks, 19 – 135
 - offset tasks, 19 – 133
 - source, 19 – 129
 - target, 19 – 131
 - incremental and full
 - and system performance, 6 – 26
 - example, 16 – 3 to 16 – 7
 - overview, 6 – 26
 - mass, 5 – 46
 - missing amounts, 6 – 26
 - offsets, defining, 6 – 14
 - overview, 6 – 2
 - precedence of, 6 – 12, 6 – 13, 6 – 19
 - previous amounts, 6 – 26
 - rules
 - copying, 6 – 17
 - defining, 6 – 5
 - deleting or modifying, 6 – 18
 - naming, 6 – 5
 - overview, 6 – 4
 - viewing, 6 – 17
 - runs
 - creating, 6 – 20
 - releasing, 6 – 21
 - reversing, 6 – 24
 - viewing, 6 – 22
 - sources
 - defining, 6 – 9
 - GL accounts, 6 – 14
 - targets
 - defining, 6 – 12
 - interaction with basis, 6 – 12, 6 – 13
 - transactions (expenditure items)
 - generating, 6 – 19, 11 – 25
 - viewing, 6 – 24
 - troubleshooting, 6 – 50
 - viewing
 - rules, 6 – 17
 - runs, 6 – 22
 - transactions (expenditure items), 6 – 22, 6 – 24
- AMG. *See* Activity Management Gateway
- amount class, 6 – 10
- APIs. *See* Activity Management Gateway
- application programming interface. *See*
Activity Management Gateway
- Applications Data Warehouse. *See* Oracle
Projects Analysis Collection Pack
Implementation Guide
- asset lines
 - See also* assets
 - adjusting, 7 – 27, 7 – 31, 7 – 32
 - changing asset assignment, 7 – 28
 - creating for Oracle Assets, 7 – 23
 - extension to assign assets to, 19 – 144 to 19 – 146
 - generating, 7 – 23 to 7 – 27, 11 – 27

- reversing capitalized, 7 – 32
- reviewing, 7 – 27
- sending to Oracle Assets, 7 – 29
- splitting, 7 – 28
- summarizing, 7 – 23
- assets
 - See also* asset lines; usages
 - abandoning, 7 – 34
 - Assets window reference, 7 – 13
 - assignment
 - changing, 7 – 28
 - defining, 7 – 27
 - assignments, example, 7 – 21
 - capitalized, reversing, 7 – 32
 - costs
 - adjusting after capitalization, 7 – 31
 - and CIP, 7 – 36
 - summarizing by group level, 7 – 16
 - creating, 7 – 7, 7 – 9
 - defining, 7 – 12, 17 – 91
 - expenditure type class, 17 – 79
 - extension, 19 – 144 to 19 – 146
 - grouping levels for, 7 – 16 to 7 – 21
 - interfacing, 11 – 38
 - options for, 2 – 50, 2 – 51
 - placing in service, 7 – 22
- attachments, 2 – 33, E – 2
- audits
 - dates processed, 15 – 5
 - reporting, 4 – 26
 - reports of, 10 – 18, 10 – 38, 10 – 39
- AutoAccounting
 - account generator, and, 17 – 323 to 17 – 330
 - assigning values and parameters, 17 – 324
 - deriving values, 17 – 325
 - functions
 - burden cost, 17 – 271
 - event revenue, 17 – 293
 - expense report costs, 17 – 278, 17 – 280, 17 – 281
 - labor costs, 17 – 260, 17 – 268
 - labor revenue, 17 – 275
 - list of, 17 – 238 to 17 – 240
 - listing, 10 – 4
 - revenue and invoice accounts, 17 – 295
 - supplier invoice revenue, 17 – 292
 - supplier invoices, for, 17 – 289, 17 – 290, 17 – 292
 - usage costs, 17 – 283, 17 – 285
 - usage revenue, 17 – 286, 17 – 288
 - labor, costs, 5 – 11, 5 – 13
 - lookup sets
 - defining, 17 – 250 to 17 – 253
 - examples, 17 – 279, 17 – 284, 17 – 288, 17 – 291
 - list of, 10 – 4, 10 – 11
 - retrieving values for, 17 – 320
 - multilingual support for, 15 – 59
 - multiple organizations and, 15 – 54, 15 – 55
 - Oracle Receivables, 18 – 60
 - overview, 17 – 237 to 17 – 240
 - parameters, 17 – 241
 - rules
 - See also* AutoAccounting, lookup sets
 - assigning to transactions, 17 – 252, 17 – 253
 - defining, 17 – 240
 - intermediate values, 17 – 240
 - list of, 10 – 5
 - SQL select statements, 17 – 245
 - window reference, 17 – 248, 17 – 254
 - segments, 10 – 5
 - setting up, 17 – 239
 - using SQL functions, 17 – 326
- autoallocations
 - See also* allocations
 - Oracle Workflow for
 - overview, 6 – 36 to 6 – 37
 - processes, 6 – 38 to 6 – 49
 - unsupported processes, 6 – 36
 - order of steps, 6 – 31
 - prerequisites, 6 – 29
 - profile option, 6 – 29, B – 8
 - sets of rules
 - creating, 6 – 28, 6 – 30
 - processing, 6 – 32
 - step-down, failure of, 6 – 30
 - viewing status of, 6 – 34
 - submitting, 6 – 32
 - terminology, 6 – 28
- AutoInvoice, 13 – 60, 13 – 65, 18 – 55
 - See also* Oracle Receivables

automatic events, 19 – 92

B

baselining. *See* budgets, baselining

billing

See also currencies

burden

schedules, 5 – 21

transactions, 5 – 43

cost-to-cost, 17 – 165

cycles

defining, 17 – 131

window reference, 17 – 131

extensions

assigning to projects, 2 – 55

concepts, 19 – 74 to 19 – 83

debugging, 19 – 93 to 19 – 97

deriving cycle dates, 19 – 98

implementing, 19 – 70 to 19 – 75

overview, 19 – 67 to 19 – 70

views and procedures, 19 – 84 to 19 – 91

holds, 4 – 28

intercompany

controls, 12 – 18

overview, 12 – 33

procedures for, 12 – 70

processing flow, 12 – 28

processing methods, 12 – 15

overview, 1 – 3

projects (providers and receivers), 2 – 44

rates, 2 – 57, 2 – 58, 2 – 62

reports, 10 – 29 to 10 – 37

schedules

burden, 5 – 21

defining, 17 – 137

rates, 15 – 54

standard, 2 – 56

setting up, 2 – 51, 17 – 130, 17 – 201

surcharges, 16 – 14

tax codes, 18 – 66

titles, 2 – 60, 2 – 61

billing schedules, rates, list of, 10 – 13

borrowed and lent amounts

See also AutoAccounting; cross charge;
inter-project billing

cross charge, 12 – 15, 12 – 67

distributing, 11 – 14

budgets

baselining, 3 – 36

Budget Lines window, 3 – 19

calculating amounts, 3 – 26

change reasons, 17 – 173

controls on, 17 – 198

copying, 3 – 26 to 3 – 32

creating and revising, 3 – 13

date range, 3 – 3

drafts

baselining, 3 – 36

creating, 3 – 15 to 3 – 19

deleting, 3 – 32

submitting, 3 – 32

entry methods, 17 – 169

examples, 3 – 5

extensions, 3 – 34, 19 – 14 to 19 – 21

history, 3 – 10

lines

entering, 3 – 19 to 3 – 25

revising and deleting, 3 – 25

overview, 3 – 2 to 3 – 12

PA periods, 17 – 71

period-phased, 3 – 20

reviewing, 3 – 39

revising, 3 – 25, 3 – 38

security, 3 – 9

summary amounts, 9 – 12

time-phased, 3 – 3, 3 – 20, 3 – 28

types, 3 – 10

cost-to-cost revenue, 17 – 165

defining, 17 – 168

example, 17 – 169

verification extension, 3 – 34, 19 – 116

versions, 3 – 10

work breakdown structure, 3 – 2

workflows for

default process, 13 – 101

overview, 13 – 99

burden schedules

adding organizations, 17 – 45

- correcting, 17 – 124
- defining, 17 – 117
- multiple organizations, for, 15 – 57
- order of precedence, 5 – 47 to 5 – 49
- overriding, 2 – 50
- burden structures, 17 – 113 to 17 – 117
- burden transactions
 - adjusting, 4 – 34
 - cost distribution, 11 – 23
 - expenditure item date, 5 – 33
 - importing, 14 – 18
 - interfacing, 11 – 58
 - recalculating, 4 – 29
 - setting up, 17 – 79
- burdened costs
 - calculating, 5 – 7
 - codes, defining, 17 – 112
 - creating and distributing, 11 – 10
 - distributing, 11 – 22
 - interfacing, 11 – 57
 - organization for, 5 – 48
 - recalculating, 4 – 29
 - tieback, 11 – 72
 - viewing, 17 – 125
- burdening
 - accounting transactions, 15 – 25
 - algorithm, 15 – 23
 - application programming interface, 19 – 147
 - billing transactions, 5 – 43
 - budgets for, 15 – 21
 - costs
 - accounting for, 5 – 31, 5 – 36, 5 – 41
 - basis for, 15 – 26
 - building, 5 – 17
 - calculating, 5 – 28
 - overview, 5 – 15 to 5 – 18
 - process flow, 5 – 44
 - reporting, 5 – 42, 15 – 21 to 15 – 35
 - storing and viewing, 5 – 30 to 5 – 53
 - expenditure items, 5 – 30
 - extension for costing, 19 – 56
 - frequently asked questions, 5 – 45
 - hierarchy, setting up, 17 – 40
 - income statements for, 15 – 22
 - labor costs, 5 – 10

- overview, 5 – 16
- reporting
 - project management, 15 – 30 to 15 – 35
 - to GL, 15 – 21, 15 – 26
- revenue, 5 – 43
- schedules for, 5 – 21 to 5 – 25, 5 – 28 to 5 – 30
- setting up, 2 – 49 to 2 – 51, 15 – 36 to 15 – 40, 17 – 110
- storing and viewing, setting up for, 5 – 35
- structures for, 5 – 19 to 5 – 21
- summaries of, 5 – 32
- testing, 5 – 47
- business groups
 - burden schedules, 17 – 117
 - integrating with other applications, 17 – 42
 - organizations, 17 – 37
 - project burdening hierarchy, 17 – 40
 - resource lists, defining, 17 – 174
 - setting up, 17 – 58

C

- capital projects
 - See also* asset lines; assets
 - about, 2 – 8
 - accounting for costs, 7 – 36
 - asset lines
 - assigning, 7 – 27
 - generating summary, 7 – 23
 - sending to Assets, 7 – 29
 - charging expenditures to, 7 – 6
 - copying, 2 – 32
 - defining assets for, 7 – 12
 - grouping levels for, 7 – 16 to 7 – 21
 - options for, 2 – 50
 - overview, 7 – 2
 - placing assets in service, 7 – 6, 7 – 22
 - processing flow, 7 – 3
 - purchase orders for, 7 – 4
 - reversing capitalized assets, 7 – 32
 - setting up, 17 – 200
 - viewing in Oracle Assets, 13 – 76
- capitalization
 - for capital project WBS levels, 7 – 10
 - tasks, 2 – 14
- case studies
 - allocations, 16 – 3

- billable status default, 16 – 12
- billing surcharges, 16 – 14
- cost accrual, 8 – 90
- organization hierarchy, 16 – 31
- summarizing amounts, 16 – 20
- transaction controls, 16 – 8, 16 – 10
- chart of accounts, 17 – 28 to 17 – 33
- CIP, assets
 - costs, 7 – 36
 - overview, 7 – 2
 - setting up, 17 – 200
- class categories and codes
 - defining, 17 – 186 to 17 – 188
 - in projects, 2 – 42
 - list of, 10 – 6
 - project type, 2 – 8
- client extensions
 - billing, example, 8 – 80
 - implementing, 19 – 4 to 19 – 10
 - overview and list, 19 – 2 to 19 – 10
 - syntax, 19 – 7
- Column Setup window, 17 – 219
- commitments
 - amounts, 9 – 14
 - extension for tracking changes, 19 – 58
 - from external systems, 18 – 29
 - from Oracle Payables, 13 – 52
 - reviewing details, 9 – 9
 - views, 18 – 29
- compensation rules
 - defining, 17 – 104, 18 – 9
 - list of, 10 – 6
- construction in process. *See* CIP
- contact types, 10 – 12, 17 – 194
- contract projects
 - about, 2 – 8
 - billable tasks, 2 – 14
 - funding, 8 – 5, 8 – 18 to 8 – 22
 - overview of billing for, 8 – 2
 - reviewing invoices for, 9 – 10
 - setting up, 17 – 202
 - billing, 17 – 201 to 17 – 202
 - distribution rules, 17 – 202
 - project type, 17 – 196
- Control Actions window, 14 – 4
- control totals, 4 – 21
- Controlling Billing by Top Task window, 8 – 16
- copying
 - expenditure batches, 4 – 20
 - projects, 2 – 32
 - resource lists, 17 – 178
 - timecard batches, 4 – 20
- Cost Audit Report. *See* reports and listings, GL Cost Interface Audit
- cost plus. *See* burdening
- cost rates
 - employee, 17 – 106
 - expenditure type, 17 – 101
 - for multiple organizations, 15 – 53
 - labor cost multipliers, 17 – 105, 17 – 107
 - list of, 10 – 7
 - multi-organization, 17 – 101, 17 – 106
 - overrides, 17 – 102
- costing
 - burden schedules, 2 – 49, 5 – 21 to 5 – 28
 - burden transactions, 5 – 7
 - labor, 5 – 8 to 5 – 13
 - overview, 1 – 2, 5 – 2 to 5 – 4
- costs
 - accruing
 - accounting for, 8 – 81
 - custom procedures for, 8 – 92 to 8 – 94
 - extension for identification, 19 – 165
 - implementation example, 8 – 84 to 8 – 89
 - overview, 8 – 80
 - bases and types, 17 – 110
 - burdening, 5 – 16
 - overview, 5 – 15 to 5 – 18
 - calculating, 5 – 5 to 5 – 8
 - distributing, 13 – 25
 - GL date for, 13 – 26
 - indirect. *See* indirect costs
 - interfacing to GL, 13 – 14
 - labor, 17 – 78
 - options for interface, 17 – 64
 - tying back from GL, 13 – 17
 - unrelated to projects. *See* indirect costs
- credit
 - memos, 8 – 66, 13 – 62
 - receivers, 2 – 55, 18 – 63

- types, 10 – 6, 18 – 61
 - setting up, 17 – 160
- cross charge
 - See also* inter–project billing
 - adjustments, 12 – 30
 - allocations and, 6 – 5, 6 – 12
 - controls
 - operating unit, 12 – 16
 - provider / receiver, 12 – 55
 - distributions, 12 – 79
 - extensions for
 - cost accrual ID, 19 – 165
 - determining transfer price, 19 – 157
 - overriding processing method, 19 – 154
 - overriding providers and receivers, 19 – 152
 - overriding transfer price, 19 – 160
 - overriding transfer price currency, 19 – 163
 - glossary of terms, 12 – 11
 - options, 12 – 52
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processes, 12 – 22
 - processing
 - controls, 12 – 19
 - methods, 12 – 15
 - options, 12 – 59
 - overview, 12 – 62
 - setting up, 12 – 38
 - transactions
 - adjusting, 12 – 81
 - creating, 12 – 64
 - types of, 12 – 14
 - transfer pricing, 12 – 21
- currencies
 - attributes, changing, 4 – 31
 - converting, 4 – 59
 - Currencies window, 17 – 7
 - defining, 17 – 7, 18 – 44
 - extensions, transfer price currency, 19 – 163
 - formats, 17 – 214, 17 – 217, 17 – 221
 - implementation options, 17 – 60
 - importing transactions in foreign, 14 – 20
 - invoice, 2 – 44, 8 – 64

- multiple
 - adjusting transactions for, 4 – 33
 - billing in, 2 – 44, 17 – 138, 18 – 45
 - interfacing to GL, 13 – 13
 - invoice formats in, 17 – 150
 - multinational setup, 2 – 45
 - reporting, 12 – 31
 - setting up for, 18 – 44
- rounding, 14 – 22, 17 – 141
- customers
 - applying tax, 18 – 66
 - defining relationships, 17 – 193
 - in projects, 2 – 43
 - in templates, 2 – 26
 - integrating with other applications, 17 – 54
 - listing relationships, 10 – 12
 - merging, 13 – 70
 - setting up, 17 – 54

D

- dates
 - accounting, 15 – 3 to 15 – 10
 - effective, 2 – 42, 17 – 25
 - project, 2 – 10, 2 – 20, 2 – 42
 - task, 2 – 13
- debugging, 6 – 29, 10 – 3, B – 8
- descriptive flexfields
 - allocation, 19 – 138
 - Invoice Transaction, B – 19
 - list of, D – 2
 - mapping extension, 19 – 60
 - overview, 17 – 236
- direct projects. *See* contract projects
- distribution
 - lines, for burdened costs, 5 – 36
 - sets for invoices, 18 – 53
- drafts. *See* budget drafts
- drilldown to
 - commitments, actuals, events, 9 – 7
 - Oracle General Ledger, 4 – 49 to 4 – 51
 - Oracle Payables, 4 – 48, 9 – 9

- E**
- employees
 - adding, 13 – 79
 - as suppliers, 13 – 23, 18 – 51
 - assignments, list of, 10 – 7
 - changing name for, 13 – 80
 - compensation rules, 17 – 104
 - cost rates, 17 – 106
 - integrating with other applications, 17 – 34, 17 – 51
 - key members, assigning, 2 – 46
 - reports, 10 – 28
 - revenue credit, 17 – 160
 - setting up, 17 – 51, 18 – 61
 - terminating, 13 – 80
 - time-off costs, 17 – 128
 - events
 - automatic, 17 – 167, 19 – 92
 - entering, 8 – 23
 - function security, 8 – 26
 - reviewing, 8 – 23, 9 – 9
 - types
 - defining, 17 – 162
 - list of, 10 – 7
 - windows
 - Event Details, 8 – 26
 - Event Revenue Dist. Lines, 8 – 26
 - Event Summary, 8 – 24
 - write-on, 8 – 53
 - exchange rates, setting up, 17 – 60, 17 – 62
 - expenditure batches
 - copying, 4 – 20
 - correcting (reworking), 4 – 24
 - creating, 4 – 13
 - Expenditure Batches Summary window, 4 – 21
 - Expenditure Batches window, 4 – 12
 - function security, C – 7
 - list of, 10 – 18
 - overview, 4 – 9 to 4 – 25
 - report, 10 – 17
 - reversing, 4 – 23
 - reviewing, 4 – 22
 - status, 4 – 10
 - submitting, 4 – 21
 - verifying, 4 – 21
 - windows, 4 – 12, 4 – 20
 - expenditure inquiry. *See* expenditure items; expenditures
 - expenditure items
 - adjusting, 4 – 53, 7 – 31
 - converted, 4 – 32
 - capitalizable, 4 – 68
 - control functions, 7 – 11
 - controls on, 4 – 66
 - dates, 5 – 33, 15 – 3 to 15 – 10
 - Expenditure Items window, 4 – 51
 - splitting, 4 – 56
 - transferring, 4 – 55
 - validating, 4 – 3
 - viewing, 4 – 47 to 4 – 53
 - Expenditure Items window, 4 – 51
 - expenditure types
 - categories, 17 – 82
 - classes, setting up, 17 – 78 to 17 – 80
 - cost rates, 17 – 101
 - defining, 17 – 87
 - in AutoAccounting rules, 17 – 279, 17 – 284, 17 – 288, 17 – 291
 - list of, 10 – 8
 - revenue category, 17 – 83
 - expenditures
 - adjusting, 4 – 26 to 4 – 46
 - amounts, 4 – 2
 - approving, 19 – 142
 - categories, 17 – 82
 - classifications, 4 – 2
 - cost rates, list of, 10 – 7
 - cycle start day, 17 – 63
 - entering, 4 – 8
 - organizations for, 17 – 65
 - overview, 4 – 2
 - preapproved. *See* expenditure batches
 - rejected, 4 – 3, 4 – 4
 - validation, 4 – 3
 - viewing, 4 – 47 to 4 – 53
 - expense reports
 - adjusting, 13 – 36
 - advances, 13 – 34
 - approving, 19 – 142
 - batches, naming, 13 – 39

- calculating costs, 5 – 6
- dates, 15 – 5 to 15 – 9
- distributing, 11 – 16
- distributing costs, 13 – 25
- importing, 14 – 25
- integrating with Oracle Payables, 13 – 21, 18 – 50
- interfacing to
 - Oracle General Ledger, 13 – 30, 13 – 33
 - Oracle Payables, 11 – 44, 13 – 24
- mailing address, 17 – 51
- prepayments, 13 – 34
- purging, 13 – 37
- summarizing lines, B – 16
- tieback from Oracle Payables, 11 – 67
- tying back from Oracle Payables, 13 – 29
- viewing in Oracle Payables, 13 – 38
- exporting to spreadsheet or text file, 9 – 3
- extensions. *See* client extensions

F

- factoring, 9 – 5
- Find Tasks window, 2 – 37
- fixed assets. *See* Oracle Assets
- FlexBuilder. *See* Account Generator
- flexfields
 - See also* descriptive flexfields; key flexfields; sets of books
 - Account Generator: Purge Runtime Data profile option, B – 18
 - job, 17 – 47 to 17 – 49
- folders, A – 2
- forecasting, 11 – 9
- foreign currency. *See* currencies
- Fremont Corporation
 - about, 17 – 5, 17 – 23
 - accounting flexfield, 17 – 29
 - AutoAccounting example, 17 – 256 to 17 – 286
 - chart of accounts, 17 – 29
 - organization hierarchy, 17 – 40
 - set of books, 17 – 28
- fringe benefits. *See* indirect projects

- function security. *See* security
- functions. *See* AutoAccounting
- Fund Projects window, 8 – 12
- future period transactions, 11 – 77

G

- general ledger. *See* Oracle General Ledger
- GL date, expense reports, 13 – 26
- GL periods, 17 – 69
- grouping levels for capital projects, 7 – 16 to 7 – 21

H

- hard limits, 8 – 11, 8 – 57, 19 – 92
- human resources. *See* Oracle Human Resources

I

- implementation. *See* implementation options; setting up
- implementation options
 - billing, 17 – 65
 - business group, 17 – 58
 - currencies, 17 – 60
 - exchange rates, 17 – 60, 17 – 62
 - expenditure cycle start day, 17 – 63
 - Implementation Options window, 17 – 57
 - interface to GL, 17 – 64, 17 – 65
 - invoices, 17 – 66
 - list of, 10 – 8
 - organization hierarchies
 - default reporting, 17 – 59
 - expenditure/event, 17 – 65
 - project/task owning, 17 – 63
 - overtime calculations, 17 – 64
 - period types
 - PA, 17 – 59
 - summarization, 17 – 58
 - project setup, 17 – 62
 - set of books, 17 – 58
 - system, 17 – 58
 - tax defaults, 17 – 68

- implementation wizard, 17 – 5
- importing
 - See also* Activity Management Gateway; integration; interfaces; transaction import
 - invoices, 13 – 27
 - manufacturing costs, 14 – 19
 - transactions, 14 – 11
- income statement, burden cost accounting, 15 – 22
- indirect costs
 - employee benefits, 17 – 128
 - labor
 - administrative, 17 – 126
 - overtime, 18 – 2
- indirect projects
 - about, 2 – 8
 - for multiple organizations, 15 – 56
 - multi-organization, 17 – 126
 - setting up, project type, 17 – 196
- integration
 - See also* interfaces
 - capital projects, 7 – 3
 - external systems, 14 – 2, 18 – 29
 - Microsoft Project, 14 – 7
 - Oracle Assets, 7 – 7, 7 – 29, 13 – 72
 - Oracle General Ledger, 13 – 10, 17 – 64, 17 – 65
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 7 – 5, 13 – 21, 18 – 51
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Purchasing, 7 – 4, 17 – 302
 - Oracle Receivables, 13 – 60
 - Oracle Workflow, 13 – 88
- inter-project billing
 - See also* cross charge
 - glossary of terms, 12 – 11
 - invoices, adjusting, 12 – 91
 - options, 12 – 54
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processing
 - methods, 12 – 15
 - overview, 12 – 88
 - selecting projects for, 2 – 44
 - setting up, 12 – 38
 - transactions, types of, 12 – 14
- intercompany, accounting transactions, 13 – 18
- intercompany billing, invoice formats, 17 – 150
- interest expense. *See* corporate expenses
- interface tables, 14 – 34, 14 – 36
- interfaces
 - See also* integration
 - audit reports, 10 – 38 to 10 – 41
 - costs, 13 – 14, 17 – 64
 - Oracle Assets, 7 – 29, 13 – 72
 - Oracle General Ledger
 - invoices, 13 – 30, 13 – 33, 13 – 67
 - overview, 13 – 10
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 11 – 42
 - expense reports, 13 – 24
 - supplier invoices, 13 – 45
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Receivables, 13 – 60, 13 – 64
 - overview, 13 – 2, 14 – 2
 - revenue, 13 – 14, 17 – 65
- intermediate values. *See* AutoAccounting rules
- inventory transactions, 11 – 23, 17 – 79
- invoices
 - See also* adjustments; supplier invoices
 - accrual, 2 – 52
 - adjusting, 8 – 64, 8 – 68, 12 – 91
 - adjustments, distributing, 11 – 20
 - approving, 8 – 61, 12 – 73, 19 – 100
 - batch source, 13 – 61, 17 – 67
 - cancelling, 8 – 65, 8 – 67
 - capital project, 7 – 5
 - centralized collection, 15 – 44
 - components of, 8 – 54 to 8 – 58
 - credit memos, 8 – 66
 - currency, 2 – 44
 - changing attributes, 8 – 64
 - dates, 15 – 3 to 15 – 10
 - discounting, 8 – 57
 - extension, 19 – 100
 - formats
 - creating, 17 – 148
 - examples, 17 – 150, 17 – 156

- list of, 10 – 8
- generating, 11 – 30
- hard limits, 8 – 57
- intercompany
 - approving and releasing, 12 – 73
 - generating, 11 – 36
- interfacing to
 - Oracle General Ledger, 13 – 67
 - Oracle Receivables, 11 – 48, 13 – 60, 13 – 63, 13 – 64
- Invoice Summary window, 8 – 59, 8 – 73
- Invoices window, 9 – 10
- lines, splitting and transferring, 8 – 67
- numbering, 17 – 66
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- printing, 8 – 63, 17 – 153
- processing, 17 – 67
- purging interface tables, 18 – 56
- releasing, 8 – 55, 8 – 62, 12 – 73, 19 – 100
- retention, 8 – 57
- reviewing, 8 – 58, 10 – 29
- rounding, 17 – 141
- splitting, 8 – 67
- tax
 - applying, 18 – 66
 - calculating, 13 – 67
 - codes, 18 – 66
- tieback, 11 – 69, 13 – 66
- transactions
 - for capital projects, 7 – 5
 - types of, 8 – 56, 11 – 12, 13 – 61, 18 – 57
- transferring, 8 – 67
- viewing, 8 – 70 to 8 – 73
- writing off, 8 – 65

invoicing

- See also* invoices
- based on funding, 8 – 53
- decentralized, 18 – 57
- generating for projects, 8 – 50
- organization level for, 18 – 55
- overview, 8 – 48
- prerequisites, 8 – 49

J

- job flexfields, 17 – 47 to 17 – 49
- jobs
 - assigning, 2 – 60
 - bill rate, 2 – 58
 - defining flexfields, 17 – 47 to 17 – 49
 - integrating with other applications, 17 – 34
 - list of, 10 – 9
 - title, 2 – 61
 - titles, defining, 17 – 47 to 17 – 49
- Journal Import (GL), 13 – 16

K

- Key Flexfield Segments window, 17 – 48
- key members, 2 – 23, 2 – 46

L

- labor
 - See also* labor costs
 - AutoAccounting for, 5 – 11, 5 – 13
 - extensions
 - billing, 19 – 46 to 19 – 49
 - costing, 19 – 31 to 19 – 33
 - transaction, 19 – 34 to 19 – 45
- labor costs
 - administrative, 17 – 126
 - calculating, 5 – 5
 - costs
 - overriding distributions, 5 – 11
 - reports for, 5 – 13
 - distributing, 5 – 8 to 5 – 13, 11 – 18
 - expenditure type classes, 17 – 78
 - extensions, 19 – 31 to 19 – 33
 - interfacing, 11 – 50
 - multipliers, 2 – 59, 17 – 107
 - list of, 10 – 9
 - overtime, 5 – 12
 - rates, list of, 10 – 9
 - security, 15 – 13
 - straight time, 5 – 10
 - tieback, 11 – 70
- labor revenue, 17 – 275
 - See also* AutoAccounting

- languages
 - See also* multilingual support
 - multiple, 15 – 58
- liability account, 13 – 26
- limiting, revenue accrual, 8 – 11
- listings. *See* reports and listings
- locations
 - integrating with other applications, 17 – 36
 - work site, 2 – 14
- lookup sets. *See* AutoAccounting
- lookups, 10 – 11
- Lookups window, 17 – 76

M

- manufacturing costs, importing, 14 – 19
- mass adjustment of expenditures, 4 – 55
- mass allocations, 5 – 46
- Mass Update Batches window, 2 – 64
- menu paths, windows, A – 2
- merging customers, 13 – 70
- Microsoft Project, 14 – 7
- MLS. *See* multilingual support
- MRC. *See* currencies, multiple
- multi-currency
 - See also* currencies, multiple
 - setup, 18 – 44
- multi-org. *See* multiple organizations
- multilingual support, 15 – 58
 - AutoAccounting and, 15 – 59
 - lookups, 17 – 76
- multiple organizations
 - See also* organizations
 - AutoAccounting rules, 17 – 258
 - bill rate schedules, 17 – 137
 - burden schedules, 17 – 117
 - cost rate overrides, 17 – 102
 - cost rates, 17 – 101, 17 – 106
 - indirect projects, 17 – 126
 - numbering
 - invoices, 17 – 66
 - projects, 17 – 63
 - operating units in, 15 – 48, 15 – 51

- options, 17 – 57
- overview, 15 – 46
- PA periods, 17 – 74
- profile options for, 15 – 56, 17 – 234
- project templates, 2 – 16
- project types, 17 – 197
- resource lists, 17 – 174
- setting up, 15 – 52
- terminology, 15 – 46
- Multiple Reporting Currencies. *See* currencies, multiple

N

- navigation paths, windows, A – 2
- non-labor resources
 - cost rates, list of, 10 – 7
 - list of, 10 – 10
 - setting up, 17 – 80, 17 – 91
 - window, 17 – 91
- number formats, 17 – 214, 17 – 217, 17 – 221
- numbering methods
 - invoices, 17 – 66
 - projects, 17 – 62
 - tasks, 2 – 13

O

- OIT (Oracle Integration Toolkit). *See* Activity Management Gateway
- operating units
 - adding, 15 – 51
 - multiple, 15 – 48
 - setting up for cross charge, 12 – 41
- Oracle Applications Implementation Wizard, 17 – 5
- Oracle Assets
 - adjustments, 13 – 77
 - cost adjustments, 13 – 78
 - creating asset lines for, 7 – 23
 - implementing, 13 – 72
 - integrating with, 13 – 72
 - interfacing assets to, 13 – 73
 - mass additions, 13 – 75
 - viewing capital project assets, 13 – 76

- Oracle General Ledger
 - burden amounts, reporting to, 15 – 21
 - integrating with, 13 – 10
 - integration, 17 – 58
 - predefined data, 13 – 12
 - profile options, 18 – 46
- Oracle Human Resources
 - employees, 17 – 51
 - integrating with, 13 – 79, 17 – 34 to 17 – 51
 - jobs, 17 – 47 to 17 – 49
 - organizations, 17 – 40
- Oracle Integration Toolkit. *See* Activity Management Gateway
- Oracle Inventory, 13 – 84
- Oracle Payables
 - account generators for, 13 – 51, 17 – 306
 - advances (prepayments), 13 – 34
 - entering
 - project defaults, 13 – 45
 - project information, 13 – 46
 - generating accounts for, 17 – 303
 - importing invoices from, 13 – 27
 - integration, 13 – 21, 13 – 40
 - profile options, 18 – 46
 - setting up, 18 – 50
 - system options, 18 – 51
 - viewing expense reports, 13 – 38
- Oracle Personnel. *See* Oracle Human Resources
- Oracle Project Analysis Collection Pack, 18 – 47
- Oracle Project Connect, 14 – 7
- Oracle Project Manufacturing, 13 – 82
- Oracle Projects Lookups window, 17 – 76
- Oracle Purchasing
 - account generators for, 13 – 51
 - defaults, 13 – 43
 - entering, project information, 13 – 46
 - generating accounts for, 17 – 302
 - integration, 13 – 40
 - setting up, 18 – 54
- Oracle Receivables
 - AutoInvoice, 13 – 60, 13 – 65
 - drilling down to, 8 – 71
 - extensions to
 - determine transaction type, 19 – 105
 - override installation, 19 – 65
 - integrating with, 13 – 60, 19 – 105
 - merging customers with, 13 – 70
 - predefined data, 13 – 61
 - setting up, 18 – 46, 18 – 55, 18 – 60
 - invoice rounding, 17 – 141
 - payment terms, 17 – 134
 - units of measure, B – 15
 - system options, 18 – 56
 - unbilled, 8 – 70
 - viewing invoices in, 13 – 68
- Oracle Workflow
 - Account Generator: Purge Runtime Data
 - profile option, B – 18
 - account generators, 17 – 302, 17 – 306
 - autoallocations, for, 6 – 36 to 6 – 53
 - budget workflow
 - default process, 13 – 101
 - overview, 13 – 99
 - extensions for
 - budget workflow, 19 – 119
 - project verification, 19 – 110
 - project workflow, 19 – 113
 - for autoallocations, B – 8
 - integrating with, 13 – 88
 - processes
 - creating, 17 – 312
 - modifying, 17 – 311
 - Project Expense Report Account Generator, 17 – 311
 - Project Supplier Invoice Account Generation, 17 – 306
 - project types setup, 17 – 199
 - project workflow, 13 – 89
 - viewing attributes, 17 – 316
- organizations
 - See also* multiple organizations
 - burden schedules, adding to, 17 – 45
 - business group, 17 – 42
 - classifications, 17 – 35
 - expenditures and events, for, 17 – 65
 - extension to verify changes, 19 – 125
 - hierarchy, listing, 10 – 10
 - hierarchy of, 17 – 40, 17 – 59, 17 – 63
 - integrating with other applications, 17 – 34, 17 – 35
 - list of, 10 – 11

- locations of, 17 – 36
- overriding, 2 – 47
- overview, 2 – 8, 15 – 41 to 15 – 45, 17 – 35
- task, 2 – 13

overhead. *See* indirect costs

overtime

- adjusting, 18 – 26
- AutoAccounting and, 18 – 12
- billing, 18 – 13
- calculating, 17 – 64
 - costs for, 18 – 2
 - extension for, 19 – 50 to 19 – 55
 - hours, 18 – 21
 - program for, 18 – 24
- compensation rules, 17 – 104, 18 – 5, 18 – 9
- entering, 18 – 21
- expenditure types, 18 – 5
- extensions for, 18 – 14
- importing transactions for, 14 – 16
- labor cost multipliers, 18 – 6, 18 – 11
- premium projects, 18 – 7
- reports, 11 – 18
- tasks, 18 – 8
- tracking
 - overview, 18 – 4
 - setting up, 18 – 4 to 18 – 11

overviews

- billing, 1 – 3
- budgets, 3 – 2 to 3 – 12
- capital projects, 7 – 2
- client extensions, 19 – 2 to 19 – 10
- contract projects, 8 – 3
- costing, 1 – 2, 5 – 2 to 5 – 4
- expenditures, 4 – 2
- integration, 13 – 2, 14 – 2
- Oracle Projects, 1 – 2
- organizations, 15 – 41
- project status inquiry, 9 – 2
- projects and tasks, 2 – 2
- resources and resource lists, 17 – 174
- setting up Oracle Projects, 17 – 5

P

PA periods

- See also* project accounting, periods
- for multiple organizations, 15 – 52
- reports, 10 – 43 to 10 – 45
- setting up, 17 – 69 to 17 – 75

packages and procedures, 19 – 7

paths to windows, A – 2

pay types, 17 – 104

Payables. *See* Oracle Payables

payment terms, setting up, 17 – 134

percent complete

- revenue and invoice, 8 – 75 to 8 – 79
- setting up, 2 – 42
- window, 2 – 71

period types, 17 – 28, 17 – 58

Personal Profile Values window, B – 2

PL/SQL, 19 – 7

posting, 13 – 17

preapproved expenditure batches. *See* expenditure batches

preapproved expenditures. *See* expenditure batches

premium costs, 18 – 2

- See also* overtime

prepayments, creating, 13 – 34

printing invoices, 8 – 63

processes

- about
 - debug mode, 10 – 3
 - list of, 11 – 2
 - project number range parameter, 11 – 5
 - streamline, 11 – 6
 - submitting, 11 – 5
 - submitting, cancelling, and monitoring, 10 – 2
- Add New Organization Compiled Burden Multipliers, 11 – 7
- Compile All Burden Schedule Revisions, 11 – 8
- Compute Forecast Labor Revenue, 11 – 9
- Create and Distribute Burden Transactions, 4 – 34, 5 – 40, 5 – 47, 11 – 10

Create Invoice Organization Transaction Types, 11 – 12
 Delete Draft Revenue of a Single Project, 11 – 13
 Distribute Borrowed and Lent Amounts, 11 – 14
 Distribute Expense Report Costs, 11 – 16, 13 – 25
 Distribute Labor Costs, 5 – 13, 11 – 18
 Distribute Supplier Invoice Adjustment Costs, 11 – 20
 Distribute Total Burdened Costs, 11 – 22
 Distribute Usage and Miscellaneous Costs, 11 – 23
 Generate Allocation Transactions, 11 – 25
 Generate Asset Lines, 11 – 27
 Generate Draft Invoices, 11 – 30
 Generate Draft Revenue, 8 – 37, 11 – 33
 Generate Intercompany Invoices, 11 – 36
 Interface Assets, 11 – 38
 Interface Cross Charge Distributions, 11 – 40
 Interface Expense Reports from Payables, 11 – 42, 13 – 33
 Interface Expense Reports to Oracle Payables, 13 – 26
 Interface Expense Reports to Payables, 11 – 44
 Interface Intercompany Invoices to Receivables, 11 – 46
 Interface Invoices to Receivables, 11 – 48
 Interface Labor Costs to GL, 11 – 50
 Interface Revenue to GL, 11 – 52
 Interface Supplier Invoice Adjustment Costs to GL, 11 – 54
 Interface Supplier Invoices from Payables, 11 – 55
 Interface Total Burdened Costs to General Ledger, 11 – 57
 Interface Usage and Misc. Costs to GL, 5 – 40
 Interface Usage and Miscellaneous Costs to GL, 11 – 58
 Journal Import (GL), 13 – 16
 Payables Invoice Import, 13 – 27
 Payables Transfer to General Ledger, 13 – 30, 13 – 33
 Process Mass Update Batches, 11 – 60
 Refresh Project Summary Amounts, 11 – 61
 Refresh Transaction Summary Amounts, 9 – 19, 11 – 62
 Release Allocation Transactions, 11 – 63
 streamline. *See* streamline processes
 Submit Streamline Processes, 11 – 6
 Tieback Cross Charge Distributions, 11 – 65
 Tieback Expense Reports from Payables, 11 – 67
 Tieback Invoices from Oracle Payables, 13 – 29
 Tieback Invoices from Receivables, 11 – 69
 Tieback Labor Costs from GL, 11 – 70
 Tieback Revenues from GL, 11 – 71
 Tieback Total Burdened Costs from GL, 11 – 72
 Tieback Usage and Misc Costs from GL, 5 – 40, 11 – 73
 Transaction Import, 11 – 74
 Update Project Summary Amounts, 9 – 17, 9 – 18, 11 – 76
 product source, 2 – 35
 profile options, 17 – 234
 about, default values, B – 2 to B – 5
 Account Generator: Purge Runtime Data, 17 – 322, B – 18
 AR: Tax: Allow Ad Hoc Tax Changes, 18 – 46
 AR: Tax: Allow Override of Customer Exemptions, 18 – 47
 AR: Tax: Allow Override of Tax Code, 18 – 47
 AR: Transaction Flexfield QuickPick Attribute, 18 – 47, B – 19
 AR: Use Invoice Accounting for Credit Memos, 18 – 47, B – 20
 GL: Set of Books Name, 18 – 47, B – 20
 HR: Security Profile, B – 20
 MO: Operating Unit, B – 20
 multiple organizations, for, 15 – 56
 PA: ADW Collect Top Tasks, 18 – 47
 PA: ADW Installed, 18 – 47
 PA: Allow Override of PA Distributions in AP/PO, 18 – 46, B – 4
 PA: Allow Project Time and Expense Entry, 13 – 24
 PA: Allow Time and Expense Entry, B – 5
 PA: Allowed to Use AMG, 18 – 47

- PA: AutoApprove Expense Reports, 18 – 47, B – 5
- PA: AutoApprove Timesheets, 18 – 47, B – 6
- PA: Collection Pack Licensed, 18 – 47, B – 6
- PA: Cost Distribution Lines Per Set, B – 6
- PA: Cross–Project Responsibility, B – 7
- PA: Debug Mode, B – 8
- PA: Default Burden Schedule Type, B – 8
- PA: Default Expenditure Organization in AP / PO, 18 – 46, B – 9
- PA: Default Public Sector, B – 9
- PA: Display Find Tasks, B – 9
- PA: Enable Long List of Resource LOVs, B – 10
- PA: Expenditure Items Per Set, B – 10
- PA: Expenditures Per Set, B – 11
- PA: Expense Report Invoices Per Set, B – 12
- PA: Interface Unreleased Revenue to GL, B – 12
- PA: Licensed to Use AMG, B – 13
- PA: Licensed to Use Project Billing, B – 13
- PA: Project Costing Installed, B – 13
 - See also* PA: Licensed to Use Project Billing
- PA: Projects Per Set, B – 14
- PA: Receivables Invoice Line UOM, 18 – 46, B – 15
- PA: Rule–Based Optimizer, B – 15
- PA: Selective Flexfield Segment for AutoAccounting, B – 15
- PA: Streamline Process Sleep Interval, B – 16
- PA: Summarize Expense Report Lines, 13 – 24, 18 – 46, B – 16
- PA: Tab to Budget Matrix Fields, B – 17
- PA: Tasks to Display for Expenditure Entry, B – 17
- PA: Transfer DFF with AP, B – 17
- PA: Web Expenses Invoices Per Set, 13 – 24
- Tax: Allow Ad Hoc Tax Changes, B – 18
- Tax: Allow Override of Customer Exemptions, B – 18
- Tax: Allow Override of Tax Code, B – 19
- project attributes, list of, 10 – 15
- Project Customers window, 2 – 43
- Project Expenditure Accounting window, 4 – 50
- Project Funding Inquiry window, 8 – 14
- project options
 - See also* options
 - assets, 2 – 50 to 2 – 52
 - billing
 - assignments, 2 – 55
 - overrides, 2 – 57 to 2 – 60, 2 – 62
 - schedules, 2 – 56
 - setup, 2 – 51
 - burden schedules, 2 – 49 to 2 – 51
 - classifications, 2 – 42
 - credit receivers, 2 – 55
 - currency, 2 – 44
 - customers and contacts, 2 – 43
 - disabling, 2 – 42
 - job overrides, 2 – 60 to 2 – 63
 - key members, 2 – 46
 - labor, 2 – 59
 - list of, 2 – 40
 - multinational setup, 2 – 45
 - organization overrides, 2 – 47
 - overview, 2 – 40 to 2 – 63
 - resource lists, 2 – 48
 - setting up, 2 – 62
 - tax codes, 2 – 52
 - transaction controls, 2 – 48
- Project Quick Entry window
 - fields, 2 – 27, 2 – 31
 - overview, 2 – 18
- Project Revenue Accounting window, 4 – 50, 8 – 43
- project role types, list of, 10 – 12
- project security, 19 – 11
- project status
 - See also* Project Status Inquiry
 - adjustment restrictions, 4 – 26
 - changing, 2 – 10
 - extensions, 19 – 110, 19 – 113
 - listing, 10 – 12
 - new projects, 2 – 34
 - Project Status window, 9 – 2, 9 – 7
 - reports of, 10 – 25
- Project Status Inquiry
 - See also* project status; summary amounts
 - adding columns, 17 – 218, 17 – 222 to 17 – 229
 - client extensions, 17 – 222 to 17 – 229

- Column Setup window, 17 – 219
- configuring, 17 – 218
- defaults, 17 – 214 to 17 – 218
- factoring, 9 – 5
- formatting numbers and currencies, 17 – 214, 17 – 217, 17 – 221
- overview, 9 – 2
- Project Status window, 9 – 3 to 9 – 5, 9 – 6
- rounding, 17 – 217
- setting up, 17 – 213 to 17 – 229
- totals, 17 – 222
- window, 17 – 213 to 17 – 229
- project summary amounts
 - See also* summary amounts
 - custom reporting of, 18 – 34
 - future period transactions, 11 – 77
 - refreshing, 11 – 61
- project templates
 - creating, 2 – 29
 - dates in, 2 – 20 to 2 – 24
 - disabling, 2 – 31
 - expenditure batch, 4 – 20
 - for quick agreement. *See* quick agreement
 - key members, 2 – 23
 - multi-organization, 2 – 16
 - overview, 2 – 16 to 2 – 19
 - updating, 2 – 31
 - using, 2 – 20
 - using Quick Entry, 2 – 18 to 2 – 28
- project types, 10 – 13
 - about, 2 – 8
 - attributes
 - billing, 17 – 201 to 17 – 202
 - budget control, 17 – 198
 - capitalization and CIP, 17 – 200
 - costing, 17 – 198
 - general, 17 – 197
 - changing, 2 – 34
 - classes, 2 – 8
 - defaults, 17 – 196
 - defining, 17 – 203
 - example setup, 17 – 204 to 17 – 213
 - multiple organization, 17 – 197
 - overview, 17 – 196
 - window reference, 17 – 197
- project workflow
 - extension to call, 19 – 110
 - extension to change status, 19 – 113
- projects
 - See also* capital projects
 - accounting periods, 10 – 12
 - billing a different, 2 – 44
 - capital
 - about, 2 – 8
 - setting up, 17 – 200
 - class categories and codes, 17 – 186 to 17 – 188
 - contact types, 17 – 194
 - list of, 10 – 12
 - contract
 - about, 2 – 8
 - funding, 8 – 5
 - setting up, 17 – 201 to 17 – 202
 - control functions, 2 – 5
 - copying, 2 – 32
 - costs, reporting, 15 – 21 to 15 – 35
 - creating, 2 – 32
 - customer relationships, 10 – 12, 17 – 193
 - dates for, 2 – 10
 - defining, 17 – 183
 - deleting, 2 – 36
 - events, 8 – 23
 - indirect
 - about, 2 – 8
 - setting up, 17 – 196
 - mass updates, 2 – 64
 - naming, 2 – 8
 - numbering, 2 – 7, 17 – 62
 - options for, 2 – 40 to 2 – 63
 - organization, 2 – 8
 - overview, 2 – 2
 - percent complete, 2 – 71
 - public sector, 2 – 11
 - role types, 10 – 12, 17 – 191
 - security, 2 – 7
 - service types, 17 – 189
 - setting up, workflow, 17 – 199
 - status, 2 – 10, 10 – 12, 17 – 183
 - summary amounts, maintaining, 9 – 11
 - tasks
 - entering, 2 – 36

- overview, 2 – 2 to 2 – 13
- templates, 2 – 16 to 2 – 31
- type classes, 2 – 8
- types of, 2 – 8, 10 – 13, 17 – 196
- Projects window
 - assigning resource lists, 17 – 180
 - defining assets, 7 – 12
 - deleting a project, 2 – 36
 - project and task options, setting up, 2 – 28, 2 – 62
 - project templates
 - creating, 2 – 29
 - disabling, 2 – 31
 - updating, 2 – 31
 - reference, 2 – 7
 - tasks, entering, 2 – 36
- provider projects, 2 – 44
- PSI. *See* Project Status Inquiry
- public sector projects, 2 – 11
- purchase orders
 - AutoCreate, 13 – 42
 - commitments, 13 – 52
 - creating for capital projects, 7 – 4
 - entering, 13 – 42
 - interfacing project information, 18 – 54
 - matching supplier invoices, 13 – 43
 - releases, 13 – 42
 - tracking, 13 – 42
 - validating, 13 – 50
- Purchasing. *See* Oracle Purchasing
- purging
 - expense reports, 13 – 37
 - runtime data, 17 – 322

R

- raw costs. *See* costs
- Receivables. *See* Oracle Receivables
- relationships, customers and contacts, 17 – 193
- reporting period, 9 – 16
- reports and listings
 - about
 - customizing, 18 – 34 to 18 – 43

- debug mode, 10 – 3
- project number range parameter, 11 – 5
- submitting, cancelling, and monitoring, 10 – 2
- Accounts Receivable Interface, 11 – 48
- Accounts Receivable Transfer, 11 – 46
- Agreement Status by Customer, 10 – 31
- Agreement Types, 10 – 4
- AutoAccounting Functions, 10 – 4
- AutoAccounting Lookup Sets Listing, 10 – 4
- AutoAccounting Rule Definitions Listing, 10 – 5
- AutoAccounting Segment Rule Pairings, 10 – 5
- Batch Expense Reports, 11 – 16
- Borrowed and Lent Amounts Distribution, 11 – 13, 11 – 15
- Burden Schedule Mass Compilation, 11 – 8
- Burdened Cost, 11 – 22
- Class Categories and Codes, 10 – 6
- Compensation Rules, 10 – 6
- Credit Types Listing, 10 – 6
- Cross Charge GL Audit, 10 – 39
- Distribute Borrowed and Lent Amounts, 11 – 14
- Draft Invoice Generation Report, 11 – 31
- Draft Revenue Generation, 11 – 34 to 11 – 36
- Employee Activity by Organization, 10 – 28
- Employee Assignments, 10 – 7
- Event Types, 10 – 7
- Expenditure Batch Status, 10 – 17
- Expenditure Cost Rates, 10 – 7
- Expenditure Types Definition, 10 – 8
- Expenditures Detail, 10 – 20
- Expenditures Summary, 10 – 22
- Forecast Revenue Computation, 11 – 9
- Generate Asset Lines, 11 – 29
- GL Cost Interface Audit, 10 – 38
- GL Revenue Interface Audit, 10 – 39
- Implementation Options Listing, 10 – 8
- Intercompany Invoice, 11 – 37
- Intercompany Invoice Generation, 11 – 37
- Interface Expense Reports, 11 – 44
- Interface Labor Costs to GL, 11 – 50
- Interface Project Costs from Payables, 11 – 56
- Interface Revenues to GL, 11 – 53

- Interface Supplier Invoice Adjustment Costs to GL Report, 11 – 54
- Interface Total Burdened Cost to GL, 11 – 57
- Interface Usage to GL, 11 – 58
- Interfaced Assets, 11 – 38
- interfaced expense reports, 13 – 27, 13 – 29
- invoice distributions, 13 – 34
- Invoice Flow, 10 – 33
- Invoice Formats, 10 – 8
- Invoice Review, 10 – 29
- Job, 10 – 9
- Labor Cost Rates, 10 – 9
- Labor Costs, 11 – 18
- Labor Costs Multipliers, 10 – 9
- Missing Timecards, 10 – 18
- Non-Labor Resources By Organization, 10 – 10
- Organization, 10 – 11
- Organization Hierarchy, 10 – 10
- Overtime Labor Calculations, 11 – 18
- Potential Revenue Summary, 10 – 34
- Pre-Approved Expenditures Entry Audit, 10 – 18
- Pre-Approved Expenditures Entry Audit Report, 14 – 31
- Project Accounting Lookups, 10 – 11
- Project Accounting Periods, 10 – 12
- Project Billing Status, 10 – 35
- Project Configuration, 10 – 15
- Project Contact Types, 10 – 12
- Project Customer Relationships, 10 – 12
- Project Expenditure Adjustment Activity, 10 – 23
- Project Role Types, 10 – 12
- Project Statuses, 10 – 12
- Project Subledger, 10 – 41, 10 – 42
- Project Types, 10 – 13
- Revenue Categories, 10 – 13
- Revenue Flow Detail, 10 – 36
- Revenue, Cost, Budgets, 10 – 25, 10 – 26
- Reverse and Interface Exceptions, 11 – 29
- Service Types, 10 – 13
- Standard Bill Rate Schedules, 10 – 13
- Streamline Processing Report, 11 – 6
- submitting, 10 – 2
- Summarization Period Exceptions, 10 – 46
- Summarized Burden Component Items, 11 – 10
- Supplier Invoice Adjustment Cost, 11 – 20
- Task Configuration. *See* reports and listings, Task Detail Report
- Task Details, 10 – 15
- Task-Revenue, Cost, Budgets by Resources, 10 – 26
- Tieback Cross Charge Distributions, 11 – 66
- Tieback Expense Reports Costs, 11 – 67
- Tieback Invoices, 11 – 69
- Tieback Labor Costs, 11 – 70
- Tieback Revenues, 11 – 71
- Tieback Total Burdened Costs, 11 – 72
- Tieback Usage and Misc. Costs, 11 – 73
- Transaction Import, 11 – 75
- Transaction Sources, 10 – 14
- Transfer Activity, 10 – 23
- Transfer Cross Charge Amounts to GL, 11 – 41
- Unbilled Receivables Aging, 10 – 30
- Units Definition, 10 – 14
- Unprocessed Events, 11 – 32
- Update Project Summary Amounts, 11 – 77
- Usage and Misc. Cost, 11 – 23
- Work Breakdown Structure, 10 – 16
- requests. *See* processes, about; reports and listings, about
- requisitions
 - commitments, 13 – 52
 - entering, 13 – 41
 - interfacing, 13 – 40
 - validating, 13 – 50
- resource lists
 - assigning to projects, 2 – 48, 17 – 180
 - changing after summarization, 9 – 21
 - defining, 17 – 178
 - multiple organizations, for, 15 – 57, 17 – 174
 - overview, 17 – 174
 - windows reference, 17 – 176
- Resource Status window, 9 – 3, 9 – 7
- resources. *See* resource lists
- retention, 8 – 57
- revenue
 - accounting transactions, 15 – 17
 - accrual, 2 – 52, 8 – 11, 8 – 28

- adjusting, 8 – 40
- and multiple customers and agreements, 8 – 34
- borrowed and lent. *See* AutoAccounting; cross charge; inter-project billing
- burdening, 5 – 43
- calculations, 8 – 31
- categories, 10 – 13, 17 – 83
- credit types, 17 – 160, 18 – 61
- dates, 15 – 7
- deleting, 8 – 37, 11 – 13
- distribution rules, 2 – 52, 17 – 167
- forecasting, 11 – 9
- generating, 8 – 29, 8 – 37, 11 – 33
- interfacing, 11 – 52, 13 – 14
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- reports, 10 – 34, 10 – 36
- reviewing, 8 – 41
- tieback, 11 – 71
- tying back from GL, 13 – 17
- windows
 - Project Revenue Accounting, 8 – 43
 - Revenue, 8 – 45
 - Revenue Lines, 8 – 46 to 8 – 48
 - Revenue Review, 8 – 41
 - Revenue Summary, 8 – 44
 - View Revenue Accounting, 8 – 43
- Review Transactions window, 14 – 58, 14 – 60
- role types, 10 – 12, 17 – 191
- rule assignments. *See* AutoAccounting

S

- sales credit, 18 – 61, 18 – 64
- sales representatives, 18 – 61
- schedules
 - billing, 2 – 56
 - burden, 5 – 21 to 5 – 28
 - overriding, 2 – 50
- security
 - budget, 3 – 9
 - function
 - event, 8 – 26
 - list, C – 2 to C – 13
 - overview, C – 2
 - project, 2 – 7
 - project and labor costs, 15 – 13
- service types
 - list of, 10 – 13
 - setting up, 17 – 189
 - tasks, 2 – 14
- set of books
 - defining, 17 – 27
 - Fremont Corporation, 17 – 28
 - setting up, 17 – 58
- setting up
 - account generators, 17 – 302
 - agreement types, 17 – 135
 - business groups, 17 – 58
 - capital projects, 17 – 196, 17 – 200
 - checklist for, 17 – 6 to 17 – 21
 - class categories and codes, 17 – 186 to 17 – 188
 - compensation rules, 17 – 104
 - contact types, 17 – 194
 - contract projects, 17 – 196, 17 – 201 to 17 – 202
 - cost rates
 - employee, 17 – 106
 - expenditure, 17 – 101
 - credit types, 17 – 160
 - currencies, 17 – 60
 - customer relationships, 17 – 193
 - dates, 17 – 25
 - event organization, 17 – 65
 - example (Fremont Corp), 17 – 23
 - exchange rates, 17 – 60, 17 – 62
 - expenditure
 - cycles, 17 – 63
 - types, 17 – 87
 - implementation options, list of, 10 – 8
 - indirect projects, 17 – 196
 - journals, 17 – 64, 17 – 65
 - labor costs, multipliers, 17 – 107
 - lookups, 17 – 76
 - multiple organizations, 15 – 51, 15 – 52
 - non-labor costs, 17 – 101
 - numbering for, invoices, 17 – 66
 - organization hierarchies, default reporting, 17 – 59

- overtime calculations, 17 – 64
- overview of, 17 – 5
- PA periods, 17 – 69 to 17 – 75
- period types
 - PA, 17 – 59
 - summarization, 17 – 58
- planning, 17 – 2 to 17 – 5
- project
 - role types, 17 – 191
 - security, 2 – 7
 - status, 17 – 183
 - types, 17 – 196
- resources, non-labor, 17 – 91
- role types, 17 – 191
- security, B – 18, B – 20
 - function, C – 2
 - project, 2 – 7, 15 – 13
- service types, 17 – 189
- sets of books, 17 – 58
- tax defaults, 17 – 68
- transaction sources, 17 – 95 to 17 – 98
- units of measure, 17 – 85
- soft limits, 8 – 11
- Source Products window, 14 – 5
- source reference, 2 – 35
- sources
 - Oracle Payables, 13 – 34
 - Oracle Projects, 13 – 27
 - Self Service, 13 – 33
- splitting
 - asset lines, 7 – 28
 - expenditure items, 4 – 38, 4 – 56
- spreadsheets, exporting to, 9 – 3
- straight time costs, 18 – 2
- streamline processes. *See* processes, about
- subtasks, creating, 2 – 37
- summary amounts
 - actuals and commitments, 9 – 20
 - creating after conversion, 9 – 18
 - custom reports for, 18 – 34
 - maintaining, 9 – 11, 9 – 15
 - reconciling budget periods, 9 – 13
 - report of exceptions, 10 – 46
 - reviewing, 9 – 3 to 9 – 5

- setting reporting period, 9 – 16
- troubleshooting, 9 – 19
- updating, 9 – 17
- supplier invoices
 - See also* invoices
 - adjustments
 - creating, 4 – 44
 - interfacing, 11 – 54
 - calculating costs for, 5 – 7
 - commitments, 13 – 52
 - dates, 15 – 5 to 15 – 9
 - distribution sets, 13 – 44
 - entering, 13 – 44
 - interfacing, 13 – 40, 13 – 45
 - matching to purchase orders, 13 – 43
 - posting, 13 – 44
 - transferring, 11 – 55, 18 – 50
 - validating, 13 – 50
- suppliers
 - as employees, 13 – 23
 - employees as, 18 – 51
 - invoice accounts for, 17 – 303
- system integration, 13 – 2, 14 – 2
 - See also* integration

T

- Task Configuration Report. *See* reports and listings, Task Detail Report
- task service types. *See* service types
- Task Status window, 9 – 3, 9 – 7
- tasks
 - changing multiple, 2 – 64
 - control functions, 2 – 5, 7 – 11
 - creating, 2 – 36
 - dates, 2 – 13
 - deleting, 2 – 38
 - details, 10 – 15
 - levels, 2 – 2
 - manager, 2 – 13
 - mass updates, 2 – 64
 - numbering, 2 – 13
 - options for, 2 – 40 to 2 – 63
 - See also* project options
 - overview, 2 – 2 to 2 – 13

- percent complete, 2 – 42, 2 – 71
- window reference, 2 – 11
- taxes
 - codes
 - defaults, 19 – 108 to 19 – 109
 - invoice line, 18 – 66
 - setting up, 2 – 52
 - defaults, 17 – 68
 - non-recoverable, 13 – 45, 13 – 52
 - on invoices, 18 – 66, 18 – 69
 - transferring
 - from Oracle Payables, 12 – 77
 - to Oracle Receivables, 18 – 70
- templates
 - See also* project templates
 - for client extensions, 19 – 8
- text files, exporting to, 9 – 3
- tie back
 - costs and revenue, 13 – 17
 - expense reports, 13 – 29
- timecards
 - dates for, 15 – 5 to 15 – 9
 - list of missing, 10 – 18
- total burdened costs. *See* burdened costs
- transaction controls
 - case studies, 16 – 8, 16 – 10, 16 – 12
 - examples, 4 – 69 to 4 – 78
 - extensions, 19 – 22 to 19 – 30
 - in projects, 2 – 48, 7 – 11
 - on chargeable expenditures, 4 – 63
 - on purchase orders, requisitions, and invoices, 13 – 50
 - overview, 4 – 62
- transaction import
 - See also* Activity Management Gateway
 - adjusting transactions, 14 – 31
 - defining sources, 14 – 14
 - example of, 14 – 27
 - expenditure type classes for, 14 – 15
 - grouping transactions, 14 – 24
 - interface tables
 - expenditure, 14 – 34
 - populating, 14 – 13, 14 – 34
 - loading
 - accounted / unaccounted items, 14 – 17
 - burden transactions, 14 – 18
 - costed / uncosted items, 14 – 17
 - foreign currency transactions, 14 – 20
 - manufacturing costs, 14 – 19
 - options, 14 – 24
 - overview, 14 – 11, 14 – 12
 - process, 11 – 74
 - process diagram, 14 – 12
 - rejections
 - codes for, 14 – 58
 - correcting, 14 – 61 to 14 – 63
 - reviewing transactions, 14 – 60
 - rounding limit, 14 – 22
 - sources, defining for, 14 – 40
 - tables, interface control, 14 – 36
 - unmatched negative transactions for, 14 – 16
 - validation, 14 – 33 to 14 – 34
 - viewing transactions, 14 – 30
- transaction sources, default expenditure type class, 17 – 96
- transaction types
 - See also* invoicing
 - creating, 11 – 12, 18 – 57
 - cross charge, 12 – 14
 - extension, 19 – 105
 - for tax calculation, 18 – 67
 - invoices, 8 – 56, 13 – 61
- transactions
 - adjusting, 19 – 44
 - allocation, 11 – 63
 - capitalized, 7 – 10
 - cost distribution, 11 – 23
 - importing, process for, 11 – 74
 - interfacing, 11 – 58
 - liability account for, 13 – 26
 - sources
 - about, 17 – 95 to 17 – 100
 - defining, 17 – 100
 - list of, 10 – 14
 - summary amounts, 11 – 62
 - unmatched negative, 4 – 24, 14 – 16
 - work in process, 11 – 23
- transfer pricing
 - defining
 - rules, 12 – 48
 - schedules, 12 – 50

overview, 12 – 21

translation. *See* multilingual support

troubleshooting

allocations and autoallocations, 6 – 50

expenditures, rejected, 4 – 4

summary amounts, 9 – 19

U

units of measure

defining, B – 15

list of, 10 – 14

setting up, 17 – 85

usage costs, tieback, 11 – 73

usages

costs

calculating, 5 – 6

distributing, 11 – 23

interfacing, 11 – 58

rate overrides, 17 – 102

dates, 15 – 5 to 15 – 9

revenue, 17 – 288

See also AutoAccounting

setting up, 17 – 91

user profile options. *See* profile options

V

vendor invoices. *See* supplier invoices

View Expenditure Accounting window, 4 – 49

View Revenue Accounting window, 8 – 43

W

WBS. *See* work breakdown structure

windows

folders in, A – 2

navigation paths to, A – 2

WIP. *See* work in process transactions

wizards, 17 – 5

work breakdown structure

report, 10 – 16

setting up, 2 – 2 to 2 – 7

viewing, 2 – 5

work in process, 11 – 23, 17 – 79

work site, location, 2 – 14

workflow. *See* Oracle Workflow

write offs, 8 – 65

write-on events, 8 – 53

Z

zoom. *See* drilldown to

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VOLUME 3

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Contents

VOLUME 1

	Preface	i
	User Guides Related to All Products	v
	User Guides Related to This Product	vi
Chapter 1	Overview of Oracle Projects	1 – 1
	Overview of Oracle Projects	1 – 2
Chapter 2	Projects	2 – 1
	Overview of Projects and Tasks	2 – 2
	Project Templates	2 – 16
	Project Entry	2 – 32
	Project and Task Options	2 – 40
	Mass Update Batches	2 – 64
	Percent Complete	2 – 71
Chapter 3	Budgets	3 – 1
	Overview of Project Budgets	3 – 2
	Budget Entry	3 – 13

Chapter 4	Expenditures	4 – 1
	Overview of Expenditures	4 – 2
	Pre-Approved Expenditures	4 – 9
	Expenditure Adjustments	4 – 26
	Viewing Expenditure Items	4 – 47
	Viewing Accounting Lines	4 – 49
	Converting Foreign Currencies	4 – 59
	Transaction Controls	4 – 62
 Chapter 5	 Costing	 5 – 1
	Overview of Costing	5 – 2
	Calculating Costs	5 – 5
	Distributing Labor Costs	5 – 8
	Precedence for Calculating Burden Cost	5 – 15
	Burdening (Cost Plus Processing)	5 – 16
	Storing and Viewing Burden Costs	5 – 30
 Chapter 6	 Allocations	 6 – 1
	Overview of Allocations	6 – 2
	About Allocation Rules	6 – 4
	Generating Allocations Transactions	6 – 19
	Full and Incremental Allocations	6 – 26
	AutoAllocations	6 – 28
	Setting Up Workflow for Step-Down AutoAllocations	6 – 36
	Processes for the PA Step Down Allocation Workflow	6 – 38
	Troubleshooting Allocations and AutoAllocations	6 – 50
 Chapter 7	 Capital Projects	 7 – 1
	Overview of Capital Projects	7 – 2
	Creating a Capital Asset in Oracle Projects	7 – 9
	Defining Assets	7 – 12
	Use Grouping Levels to Summarize Asset Costs	7 – 16
	Placing an Asset in Service	7 – 22
	Creating and Preparing Asset Lines for Oracle Assets	7 – 23
	Reviewing and Adjusting Asset Lines	7 – 27
	Sending Asset Lines to Oracle Assets	7 – 29
	Adjusting Assets After Interface	7 – 31

Accounting for CIP and Asset Costs in Oracle Projects and Oracle Assets	7 – 36

Chapter 8

Billing	8 – 1
Billing Data Flow for Contract Projects	8 – 2
Overview of Contract Projects	8 – 3
Funding a Contract Project	8 – 5
Controlling Billing by Top Task	8 – 16
Quick Agreement / Funding Projects	8 – 18
Events	8 – 23
Accruing Revenue for a Project	8 – 28
Reviewing Revenue	8 – 41
Invoicing a Project	8 – 48
Accruing Revenue and Generating Invoices Based on Percent Complete	8 – 75
Revenue-Based Cost Accrual	8 – 80

Chapter 9

Project Status Inquiry	9 – 1
Project Status Inquiry Overview	9 – 2
Project Summary Amounts	9 – 11

Chapter 10

Reports and Listings	10 – 1
Submitting Reports and Listings	10 – 2
Implementation Listings	10 – 4
Project Entry Reports	10 – 15
Transaction Entry Reports	10 – 17
Project Expenditures Reports	10 – 20
Project Status Reports	10 – 25
Employee Activity Report	10 – 28
Billing Review Reports	10 – 29
Billing Process Flow Reports	10 – 33
Interface Audit Reports	10 – 38
Project Subledger Audit Reports	10 – 41
Period Close Exception Reports	10 – 43
Summarization Period Exceptions	10 – 46

Chapter 11

Processes	11 – 1
List of Processes	11 – 2
Submitting Processes	11 – 5
Add New Organization Compiled Burden Multipliers	11 – 7
Compile All Burden Schedule Revisions	11 – 8
Compute Forecast Labor Revenue	11 – 9
Create and Distribute Burden Transactions	11 – 10
Create Invoice Organization Transaction Types Process	11 – 12
Delete Draft Revenue of a Single Project	11 – 13
Distribute Borrowed and Lent Amounts	11 – 14
Distribute Expense Report Costs	11 – 16
Distribute Labor Costs	11 – 18
Distribute Supplier Invoice Adjustment Costs	11 – 20
Distribute Total Burdened Cost	11 – 22
Distribute Usage and Miscellaneous Costs	11 – 23
Generate Allocations Transactions	11 – 25
Generate Asset Lines	11 – 27
Generate Draft Invoices	11 – 30
Generate Draft Revenue	11 – 33
Generate Intercompany Invoices	11 – 36
Interface Assets	11 – 38
Interface Cross Charge Distributions to General Ledger	11 – 40
Interface Expense Reports from Payables	11 – 42
Interface Expense Reports to Payables	11 – 44
Interface Intercompany Invoices to Receivables	11 – 46
Interface Invoices to Receivables	11 – 48
Interface Labor Costs to General Ledger	11 – 50
Interface Revenue to General Ledger	11 – 52
Interface Supplier Invoice Adjustment Costs to Payables	11 – 54
Interface Supplier Invoices from Payables	11 – 55
Interface Total Burdened Cost to General Ledger	11 – 57
Interface Usage and Miscellaneous Costs to General Ledger ...	11 – 58
Process Mass Update Batches	11 – 60
Refresh Project Summary Amounts	11 – 61
Refresh Transaction Summary Amounts	11 – 62
Release Allocation Transactions	11 – 63
Tieback Cross Charge Distributions from GL	11 – 65
Tieback Expense Reports from Payables	11 – 67
Tieback Invoices from Receivables	11 – 69

Tieback Labor Costs from General Ledger	11 – 70
Tieback Revenue from General Ledger	11 – 71
Tieback Total Burdened Cost from General Ledger	11 – 72
Tieback Usage Costs from General Ledger	11 – 73
Transaction Import	11 – 74
Update Project Summary Amounts	11 – 76

Index

VOLUME 2

Chapter 12

Cross Charge and Inter–Project Billing	12 – 1
Overview of Cross Charge and Inter–Project Billing	12 – 4
Basic Business Needs	12 – 5
Glossary for Cross Charge and Inter–Project Billing	12 – 11
Major Features of Cross Charge	12 – 14
Major Features of Inter–Project Billing	12 – 33
Currency Model in Oracle Projects	12 – 35
Setting Up and Processing Cross Charge and Inter–Project Billing	12 – 37
Setting Up Cross Charge and Inter–Project Billing	12 – 38
Procedures for Cross Charge and Inter–Project Billing	12 – 47
Processing Flow for Cross Charge and Inter–Project Billing	12 – 62
Creating Cross Charge Transactions	12 – 64
Processing Borrowed and Lent Accounting	12 – 67
Processing Intercompany Billing	12 – 70
Interfacing Cross Charge Distributions to General Ledger	12 – 79
Adjusting Cross Charge Transactions	12 – 81
Overview of Processing Flow for Inter–Project Billing	12 – 88
Adjusting Inter–Project Billing Invoices	12 – 91

Chapter 13

Integration with Other Oracle Applications	13 – 1
System Integration	13 – 2
Integrating with Oracle General Ledger	13 – 10
Integrating Expense Reports with Oracle Payables	13 – 21
Integrating with Oracle Purchasing and Oracle Payables (Requisitions, Purchase Orders, and Supplier Invoices)	13 – 40

Integrating with Oracle Receivables	13 – 60
Integrating with Oracle Assets	13 – 72
Integrating with Oracle Human Resources	13 – 79
Integrating with Oracle Project Manufacturing	13 – 82
Integrating with Oracle Inventory	13 – 84
Integrating with Oracle Workflow	13 – 88
Integrating with Cash Management	13 – 106

Chapter 14

Integration with Non–Oracle Applications	14 – 1
Activity Management Gateway	14 – 2
Project Connect	14 – 7
Transaction Import	14 – 11
Transaction Import Interface	14 – 33

Chapter 15

Advanced Topics and Essays	15 – 1
List of Essays	15 – 2
Date Processing in Oracle Projects	15 – 3
Project and Labor Cost Security in Oracle Projects	15 – 13
Accounting Transactions	15 – 16
Reporting Requirements for Project Burdening	15 – 21
Implementing Burden Cost Accounting	15 – 36
Organizations in Oracle Projects	15 – 41
Support for Multiple Organizations in Oracle Projects	15 – 46
Multilingual Support	15 – 58

Chapter 16

Case Studies	16 – 1
List of Case Studies	16 – 2
Case Study: Incremental Allocations	16 – 3
Case Study: New Charges Not Allowed	16 – 8
Case Study: Organization–Based Transaction Controls	16 – 10
Case Study: Default Billable Status by Expenditure Type	16 – 12
Case Study: Surcharge	16 – 14
Case Study: Summary Amounts for Reporting	16 – 20
Case Study: Organization Change in Fremont Corporation	16 – 31

Index

VOLUME 3

Chapter 17

Oracle Projects Setup and Implementation	17 – 1
Planning Your Implementation	17 – 2
Overview of Setting Up Oracle Projects	17 – 5
Oracle Applications Set of Books	17 – 27
Employees and Organizations	17 – 34
Customers	17 – 54
Implementation Options	17 – 57
PA Periods	17 – 69
Oracle Projects Lookups	17 – 76
Expenditure Definitions	17 – 78
Non-Labor Costing Definitions	17 – 101
Labor Costing Definitions	17 – 104
Burden Costing Definitions	17 – 110
Indirect Costs	17 – 126
Billing	17 – 130
Budgets	17 – 168
Resources and Resource Lists	17 – 174
Project Definition	17 – 183
Project Status Inquiry Setup	17 – 213
Profile Options	17 – 234
Descriptive Flexfields	17 – 236
AutoAccounting and the Account Generator	17 – 237
Using the Account Generator in Oracle Projects	17 – 302
Setting Up the Account Generator Processes	17 – 306
Using AutoAccounting with Account Generator Processes	17 – 323
Comparing AutoAccounting to the Workflow Account Generator	17 – 327

Chapter 18

Advanced Implementation Issues	18 – 1
Tracking Overtime and Premium Labor Costs	18 – 2
Integrating Commitments from External Systems	18 – 29
Custom Reporting Using Project Summary Amounts	18 – 34
Setting Up for Multi-Currency Processing	18 – 44
Implementing Oracle Projects for Integration With Other Applications	18 – 46

Chapter 19

Client Extensions	19 – 1
Client Extensions	19 – 2
Project Security Extension	19 – 11
Budget Calculation Extensions	19 – 14
Transaction Control Extensions	19 – 22
Labor Costing Extensions	19 – 31
Labor Transaction Extensions	19 – 34
Labor Billing Extensions	19 – 46
Overtime Calculation Extension	19 – 50
Burden Costing	19 – 56
Commitment Changes	19 – 58
Descriptive Flexfield Mapping	19 – 60
Receivables Installation Override	19 – 65
Billing Extensions	19 – 67
Billing Cycle Extension	19 – 98
Automatic Invoice Approve/Release Extension	19 – 100
AR Transaction Type Extension	19 – 105
Output Tax Extension	19 – 108
Project Verification Extension	19 – 110
Project Workflow Extension	19 – 113
Budget Verification Extension	19 – 116
Budget Workflow Extension	19 – 119
Verify Organization Change Extension	19 – 125
Allocation Extensions	19 – 129
AutoApproval Extension	19 – 142
Asset Assignment Extension	19 – 144
Cost Plus Application Programming Interface (API)	19 – 147
Cross-Charge Client Extensions	19 – 151
Provider and Receiver Organizations Override Extension	19 – 152
Cross-Charge Processing Method Override Extension	19 – 154
Transfer Price Determination Extension	19 – 157
Transfer Price Override Extension	19 – 160
Transfer Price Currency Conversion Override Extension	19 – 163
Cost Accrual Identification Extension	19 – 165

Appendix A

Menu Paths	A – 1

Appendix B

Profile Options	B – 1

Appendix C	Function Security	C – 1
Appendix D	Descriptive Flexfields	D – 1
Appendix E	Attachments	E – 1
	Glossary	
	Index	

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Oracle Projects User's Guide Release 11i A82834-01

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CHAPTER

17

Oracle Projects Setup and Implementation

This chapter describes everything you need to know about implementing and setting up Oracle Projects.

Planning Your Implementation

As you plan your implementation of Oracle Projects, we recommend that you consider the implementation issues discussed in this section. Implementing a core system such as Oracle Projects is a complex and lengthy task. By carefully planning your implementation, you can save valuable time and prevent errors.

If you plan to use Multiple Reporting Currencies (MRC) with Oracle Projects, additional setup steps are required. See: *Multiple Reporting Currencies in Oracle Applications*.

Your Implementation Team

Your implementation team creates and executes the implementation plan and makes most of the implementation decisions. Your implementation team makes many important decisions, from re-engineering your business procedures, to preparing for conversion, to determining your system requirements.

Your implementation team should be very broad-based, with representatives from your MIS, accounting, and project management departments. Ideally, the team is made up of staff who can dedicate a significant amount of time to implementation issues.

You should also appoint one member of your implementation team to head the implementation, facilitate resolution of issues, and act as liaison between your organization and Oracle Worldwide Customer Support and Oracle Consulting Services.

Implementation Decisions

Review your business procedures

Your implementation team should re-examine all your business procedures in light of the functionality in Oracle Projects. The terminology your business uses, your organization structure, your accounting practices, how you classify expenditures, and your reporting policies are just a few issues that will influence many decisions you make about your implementation of Oracle Projects.

Preparing your implementation data

Your implementation team must determine how to configure the features in Oracle Projects.

As you determine your implementation data, you must keep AutoAccounting in mind. The AutoAccounting feature in Oracle Projects derives values for account combinations based on project information for all accounting transactions in Oracle Projects. Consequently, the way you organize your chart of accounts affects your implementation data. For example, if you charge several expense accounts for varied expenditures such as meals, travel and lodging, and airfare, then you need to implement an expenditure type that corresponds to each expense account. You can use most of the implementation data that you define for Oracle Projects as inputs to the AutoAccounting rules that you define.

See Also

Overview of Setting Up Oracle Projects: page 17 – 5

Data Conversion

Since data conversion from your existing systems is typically the most error-prone area of implementation, we recommend that your implementation team invest considerable time planning and testing it.

We recommend that you test your data conversion program carefully using sample data before you migrate to Oracle Projects. After conversion, you should verify the functionality of your data.

User Training

Plan training for all members of your company that will use Oracle Projects. You should include employees who interact directly with the software or who review the data that is reported from the system. The training may include steps in how to use the system to perform specific tasks and explanations of any new business policies that you may institute as a consequence of implementing Oracle Projects.

System Testing

Plan and execute extensive system testing of your enterprise solution – including the Oracle Applications and any systems that interface with the applications. Your system test environment should be as similar to your production system as possible. After you convert your data for testing, assign users to test the functions that they currently or will perform. Provide your testers with the appropriate hardware resources so you can accurately judge performance issues.

Overview of Setting Up Oracle Projects

This section contains a checklist that includes each task you need to perform to complete the implementation of Oracle Projects. It lists the steps required to implement Oracle Projects along with advanced implementation topics for you to consider.

Before you set up Oracle Projects, you should:

- Set up Oracle Applications responsibilities and users for the implementation. See: *Defining a Responsibility Oracle Applications System Administrator's Guide*.

Oracle Projects provides two responsibilities, Project Costing Super User and Project Billing Super User, depending on whether you install Oracle Project Costing or Oracle Project Billing.

To further help you implement Oracle Projects, this chapter walks you through a sample implementation for Fremont Corporation, a fictitious engineering, construction, and consulting firm. For each implementation step, we explain how Fremont implements its own policy, practice, or procedure in Oracle Projects. By studying Fremont's implementation, you can learn more about how to implement your own policies, practices, and procedures using Oracle Projects. See: *About Fremont Corporation: An Example of Setting Up Oracle Projects*: page 17 – 23.

Fremont Corporation may not have implemented all of the features available in this release of Oracle Projects.

Oracle Applications Implementation Wizard

If you are implementing more than one Oracle Applications product, you may want to use the Oracle Applications Implementation Wizard to coordinate your setup activities. The Implementation Wizard guides you through the setup steps for the applications you have installed, suggesting a logical sequence that satisfies cross-product implementation dependencies and reduces redundant setup steps. The Wizard also identifies steps that can be completed independently—by several teams working in parallel—to help you manage your implementation process most efficiently.

You can use the Implementation Wizard as a resource center to see a graphical overview of setup steps, read online help for a setup activity, to open the appropriate setup window. You can also document your implementation, for further reference and review, by using the Wizard to record comments for each step.

For more information, see: *Oracle Applications Implementation Wizard User's Guide*.

Setting up Underlying Oracle Applications Technology

The setup steps in this chapter tell you how to implement the parts of Oracle Applications specific to Oracle Projects.

The Implementation Wizard guides you through the entire Oracle Applications setup, including system administration. However, if you do not use the Wizard, you need to complete several other setup steps, including:

- performing systemwide setup tasks such as configuring concurrent managers and printers
- managing data security, which includes setting up responsibilities to allow access to a specific set of business data and complete a specific set of transactions, and assigning individual users to one or more of these responsibilities

For more information, see: *Oracle Applications System Administrator's Guide*.

Also, if your implementation uses Oracle Workflow to manage project or budget status changes, or to derive the Project Related Supplier Invoice Account via the Account Generator, you need to set up Oracle Workflow.

For more information, see: *Oracle Workflow User's Guide*.

Oracle Projects Implementation Checklist

This checklist summarizes each of the steps you follow to implement Oracle Projects. It includes setup steps for data that may be shared with other Oracle Applications, but is required by Oracle Projects. If you have already defined this information when setting up other Oracle Applications, you can skip those steps. This shared data includes:

- Set of Books
- Employees and Organizations
- Customers

Since some implementation steps build upon information you define in other implementation steps, you should perform the steps in the order listed.

As you determine your implementation data, you must keep AutoAccounting in mind. The AutoAccounting feature in Oracle Projects derives values for account combinations based on project information for all accounting transactions in Oracle Projects. Consequently, the way you organize your chart of accounts affects your implementation data. For example, if you charge several expense accounts for varied expenditures such as meals, travel and lodging, and airfare, then you need to implement an expenditure type that corresponds to each expense account. You can use most of the implementation data that you define for Oracle Projects as inputs to the AutoAccounting rules that you define.

After you complete most implementation steps, you can submit reports to review your work and confirm that you have successfully completed the step. For example, after you complete entering Agreement types, you can submit the Agreement Types Listing. See: Implementation Listings: page 10 – 4.

Setting Up for Cross Charge and Intercompany Billing

Setting up for cross charge and inter-project billing requires additional steps. See: Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38.

Step Number	Step Description	Project Costing	Project Billing
Profile Options			
☐ Step 1	Set the profile option <i>PA: Licensed to Use Project Billing</i>. See: PA: Licensed to Use Project Billing: page B – 13.	–	Required
Set of Books			
☐ Step 2	Define your set of books. See: Oracle Applications Set of Books: page 17 – 27.	Required	Required
☐ Step 3	Enable currencies that you plan to use. See: Currencies Window (<i>Oracle General Ledger User's Guide</i>).	Optional	Optional
Human Resources			
☐ Step 4	Define locations. See: Locations: page 17 – 36	Required	Required

Table 17 – 1 Implementation Checklist (Page 1 of 11)

Step Number	Step Description	Project Costing	Project Billing
☐ Step 5	Define organizations. See: Organizations: page 17 – 35	Required	Required
☐ Step 6	Define organization hierarchies. See: Organization Hierarchies: page 17 – 40.	Required	Required
☐ Step 7	Specify a project burdening hierarchy for each business group. See: Specifying a Project Burdening Hierarchy: page 17 – 44.	Required	Required
☐ Step 8	Define jobs. See: Jobs: page 17 – 47.	Required	Required
☐ Step 9	Define employees. See: Employees: page 17 – 51.	Required	Required
Receivables			
☐ Step 10	Define customers. See: Customers: page 17 – 54.	Optional	Required
☐ Step 11	Set up output tax codes for customer invoices. See: Setting Up Invoice Line Tax Codes: page 18 – 67.	–	Optional
☐ Step 12	Set up output tax exemptions for customer invoices. See: Tax Exemptions (<i>Oracle Receivables User's Guide</i>).	–	Optional
Implementation Options and PA Periods			
☐ Step 13	Define implementation options. See: Implementation Options: page 17 – 57. ATTENTION: If you have a multiple organization installation, you must define implementation options for each operating unit.	Required	Required
☐ Step 14	Define PA periods. See: PA Periods: page 17 – 69. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Required	Required

Table 17 – 1 Implementation Checklist (Page 2 of 11)

Step Number	Step Description	Project Costing	Project Billing
Expenditure Setup			
☐ Step 15	Define expenditure categories. See: Expenditure Categories: page 17 – 82.	Required	Required
☐ Step 16	Define revenue categories. See: Revenue Categories: page 17 – 83.	Required	Required
☐ Step 17	Define units. See: Units: page 17 – 85.	Required	Required
☐ Step 18	Define expenditure types. See: Expenditure Types: page 17 – 87.	Required	Required
☐ Step 19	Define non-labor resources. See: Non-Labor Resources: page 17 – 91. *Required if you use usages.	*Required	*Required
☐ Step 20	Define transaction sources. See: Transaction Sources: page 17 – 95.	Optional	Optional
☐ Step 21	Implement transaction control extension , if needed (advanced implementation step). See: Transaction Control Extensions: page 19 – 22.	Optional	Optional
Non-Labor Costing Setup			
☐ Step 22	Define cost rates for expenditure types. See: Cost Rates for Expenditure Types: page 17 – 101. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Required	Required
☐ Step 23	Define usage cost rate overrides. See: Usage Cost Rate Overrides: page 17 – 102. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 3 of 11)

Step Number	Step Description	Project Costing	Project Billing
Labor Costing Setup			
☐ Step 24	Define compensation rules. See: Compensation Rules: page 17 – 104.	Required	Required
☐ Step 25	Define employee cost rates. See: Employee Cost Rates: page 17 – 106. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Required	Required
☐ Step 26	Define labor cost multipliers. See: Labor Cost Multipliers: page 17 – 107.	Optional	Optional
☐ Step 27	Implement labor costing extension (advanced implementation step). See: Labor Costing Extensions: page 19 – 31.	Optional	Optional
☐ Step 28	Implement labor transaction extension (advanced implementation step). See: Labor Transaction Extensions: page 19 – 34.	Optional	Optional
☐ Step 29	Implement overtime processing (advanced implementation step). See: Overview of Implementing Overtime: page 18 – 4.	Optional	Optional
Burden Costing Setup			
☐ Step 30	Define cost bases and cost base types. See: Cost Bases and Cost Base Amount Types: page 17 – 110.	Optional	Optional
☐ Step 31	Define burden cost codes. See: Burden Cost Codes: page 17 – 112.	Optional	Optional
☐ Step 32	Define burden structures. See: Burden Structures: page 17 – 113	Optional	Optional
☐ Step 33	Define burden schedules. See: Burden Schedules: page 17 – 117 ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit if the new operating unit is associated with a new business group.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 4 of 11)

Step Number	Step Description	Project Costing	Project Billing
Billing Setup			
☐ Step 34	Define billing cycles. See: Billing Cycles: page 17 – 130.	–	Required
☐ Step 35	Implement billing cycle extension (advanced implementation step). See: Billing Cycle Extension: page 19 – 98.	–	Optional
☐ Step 36	Define payment terms. See: Payment Terms: page 17 – 134.	–	Optional
☐ Step 37	Define agreement types. See: Agreement Types: page 17 – 135.	–	Required
☐ Step 38	Define bill rate schedules. See: Bill Rate Schedules: page 17 – 137 ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	–	Required
☐ Step 39	Define invoice formats. See: Invoice Formats: page 17 – 148.	–	Required
☐ Step 40	Define credit types. See: Credit Types: page 17 – 160.	–	Required
☐ Step 41	Define event types. See: Event Types: page 17 – 162.	–	Optional
☐ Step 42	Assign event types for cost-to-cost revenue. See: Assigning Event Types for Cost-to-Cost Revenue: page 17 – 165.	–	Optional
☐ Step 43	Implement Percent Complete Revenue Accrual and Invoicing . See: Setup Requirements for Percent Complete Revenue and Invoicing: page 17 – 167.	–	Optional
☐ Step 44	Implement labor billing extension (advanced implementation step). See: Labor Billing Extensions: page 19 – 46.	–	Optional
☐ Step 45	Implement billing extensions (advanced implementation step). See: Billing Extensions: page 19 – 67.	–	Optional

Table 17 – 1 Implementation Checklist (Page 5 of 11)

Step Number	Step Description	Project Costing	Project Billing
☐ Step 46	Implement automatic invoice approve/release extension (advanced implementation step). See: Automatic Invoice Approve/Release Extension: page 19 – 100.	–	Optional
☐ Step 47	Implement AR transaction type extension (advanced implementation step). See: AR Transaction Type Extension: page 19 – 105.	–	Optional
☐ Step 48	Implement cost accrual (advanced implementation step). See: Revenue-Based Cost Accrual: page 8 – 80.	–	Optional
Budget Setup			
☐ Step 49	Define budget types. See: Budget Types: page 17 – 168.	Optional	Optional
☐ Step 50	Define budget entry methods. See: Budget Entry Methods: page 17 – 169.	Required	Required
☐ Step 51	Define budget change reasons. See: Budget Change Reasons: page 17 – 173.	Optional	Optional
☐ Step 52	Define resource lists. See: Resources and Resource Lists: page 17 – 174. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit if the new operating unit is associated with a new business group.	Required	Required
☐ Step 53	Implement budget calculation extension (advanced implementation step). See: Budget Calculation Extensions: page 19 – 14.	Optional	Optional
☐ Step 54	Implement budget verification extension (advanced implementation step). See: Budget Verification Extension: page 19 – 116.	Optional	Optional
☐ Step 55	Implement budget workflow extension. See: Budget Workflow Extension: page 19 – 119.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 6 of 11)

Step Number	Step Description	Project Costing	Project Billing
Project Setup			
☐ Step 56	Define project statuses. See: Project Statuses: page 17 – 183.	Optional	Optional
☐ Step 57	Define class categories and class codes. See: Project Classifications: page 17 – 186.	Optional	Optional
☐ Step 58	Define service types. See: Service Types: page 17 – 189.	Required	Required
☐ Step 59	Define project role types. See: Project Role Types: page 17 – 191.	Optional	Optional
☐ Step 60	Define project customer relationships. See: Project Customer Relationships: page 17 – 193.	Optional	Required
☐ Step 61	Define contact types. See: Contact Types: page 17 – 194.	Optional	Optional
☐ Step 62	Define project types. See: Project Types: page 17 – 196. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Required	Required
☐ Step 63	Define project templates. See: Project Templates: page 2 – 16. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Required	Required
☐ Step 64	Implement project verification extension (advanced implementation step). See: Project Verification Extension: page 19 – 110.	Optional	Optional
☐ Step 65	Implement project workflow extension. See: Project Workflow Extension: page 19 – 113.	Optional	Optional
☐ Step 66	Implement verify organization change extension. See: Verify Organization Change Extension: page 19 – 125.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 7 of 11)

Step Number	Step Description	Project Costing	Project Billing
Project Status Inquiry Setup			
☐ Step 67	Define derived columns. See: Derived Columns for Project Status Inquiry: page 17 – 218.	Optional	Optional
☐ Step 68	Define displayed columns. See: Non–Default Configuration for Project Status Inquiry: page 17 – 218.	Optional	Optional
☐ Step 69	Implement commitments from external systems (advanced implementation step). See: Implementing Commitments from External Systems: page 18 – 29	Optional	Optional
General Setup			
☐ Step 70	Specify profile option values. See: Profile Options: page 17 – 234. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Optional	Optional
☐ Step 71	Define descriptive flexfields. See: Descriptive Flexfields: page 17 – 236.	Optional	Optional
☐ Step 72	Define request groups for report and process security. See: <i>Oracle Applications System Administrator's Guide</i> .	Optional	Optional
☐ Step 73	Define responsibilities for different functional users. See: <i>Oracle Applications System Administrator's Guide</i> Project Security Extension: page 19 – 11. PA: Cross–Project Responsibility: page B – 7	Optional	Optional
☐ Step 74	Define frequently–used folders. See: Customizing the Presentation of Data <i>Oracle Applications User's Guide</i> and Administering Folders <i>Oracle Applications System Administrator's Guide</i> . To see which windows are folder–enabled, see Oracle Projects Navigation Paths: page A – 3.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 8 of 11)

Step Number	Step Description	Project Costing	Project Billing
AutoAccounting for Costs			
ATTENTION: If you have a multiple organization installation, you must repeat these steps for each operating unit.			
☐ Step 75	Set up accounting for labor costs. See: Accounting for Labor Costs: page 17 – 260.	Required	Required
☐ Step 76	Set up accounting for expense report costs. See: Accounting for Expense Report Costs: page 17 – 278.	Required	Required
☐ Step 77	Set up accounting for usage costs. See: Accounting for Usage Costs: page 17 – 283.	Required	Required
☐ Step 78	Set up accounting for miscellaneous costs. See: Expenditure Type Classes 17 – 78.	Required	Required
☐ Step 79	Set up accounting for burden transactions. See: Expenditure Type Classes 17 – 78.	Required	Required
☐ Step 80	Set up accounting for WIP and Inventory costs, if you are using these expenditure type classes for costs other than those originating in Oracle Manufacturing and Oracle Inventory. See: Expenditure Type Classes 17 – 78.	Required	Required
☐ Step 81	Set up accounting for supplier invoice adjustment costs. See: Accounting for Supplier Invoice Adjustment Costs: page 17 – 289.	Required	Required
☐ Step 82	Set up accounting for total burdened costs. See: Accounting for Burdened Costs: page 17 – 271.	Optional	Optional
AutoAccounting for Revenue and Billing			
ATTENTION: If you have a multiple organization installation, you must repeat these steps for each operating unit.			
☐ Step 83	Set up accounting for labor revenue. See: Accounting for Labor Revenue: page 17 – 275.	–	Required

Table 17 – 1 Implementation Checklist (Page 9 of 11)

Step Number	Step Description	Project Costing	Project Billing
☐ Step 84	Set up accounting for expense report revenue. See: Accounting for Expense Report Revenue: page 17 – 281.	–	Required
☐ Step 85	Set up accounting for usage revenue. See: Accounting for Usage Revenue: page 17 – 286.	–	Required
☐ Step 86	Set up accounting for miscellaneous revenue. See: Expenditure Type Classes 17 – 78.	–	Required
☐ Step 87	Set up accounting for burden transactions revenue. See: Expenditure Type Classes 17 – 78.	–	Required
☐ Step 88	Set up accounting for inventory revenue. See: Expenditure Type Classes 17 – 78.	–	Required
☐ Step 89	Set up accounting for work in process revenue. See: Expenditure Type Classes 17 – 78.	–	Required
☐ Step 90	Set up accounting for supplier invoice revenue. See: Accounting for Supplier Invoices Revenue: page 17 – 292.	–	Required
☐ Step 91	Set up accounting for event revenue. See: Accounting for Event Revenue: page 17 – 293.	–	Required
☐ Step 92	Set up accounting for unbilled receivables, unearned revenue, and receivables. See: Accounting for Revenue and Invoices: page 17 – 295.	–	Required
☐ Step 93	Define Invoice Rounding account. See: Invoice Rounding: page 17 – 141.	–	Required
☐ Step 94	Set up accounting for invoice write-offs. See: Accounting for Revenue and Invoices: page 17 – 295.	–	Required

Table 17 – 1 Implementation Checklist (Page 10 of 11)

Step Number	Step Description	Project Costing	Project Billing
Indirect Projects for Cost Collection			
☐ Step 95	Define indirect projects for cost collection. See: Accounting for Indirect Costs: page 17 – 126. ATTENTION: If you have a multiple organization installation, you must repeat this step for each operating unit.	Optional	Optional

Table 17 – 1 Implementation Checklist (Page 11 of 11)

Advanced Implementation Topics Checklist

This section summarizes the areas in which you can extend the functionality of Oracle Projects to address company-specific requirements, with the implementation of client extensions and the development of new programs or the modification of existing ones.

Step Number	Step Description	Project Costing	Project Billing
Client Extensions (also listed in the standard implementation checklist)			
☐ Step 1	Implement project and labor cost security extension. See: Project Security Extension: page 19 – 11.	Optional	Optional
☐ Step 2	Implement budget calculation extension. See: Budget Calculation Extensions: page 19 – 14.	Optional	Optional
☐ Step 3	Implement budget verification extension (advanced implementation step). See: Budget Verification Extension: page 19 – 116.	Optional	Optional
☐ Step 4	Implement transaction control extension. See: Transaction Control Extensions: page 19 – 22.	Optional	Optional
☐ Step 5	Implement labor transaction extension. See: Labor Transaction Extensions: page 19 – 34.	Optional	Optional

Table 17 – 2 Advanced Implementation Checklist (Page 1 of 3)

Step Number	Step Description	Project Costing	Project Billing
☐ Step 6	Implement labor costing extension. See: Labor Costing Extensions: page 19 – 31.	Optional	Optional
☐ Step 7	Implement labor billing extension. See: Labor Billing Extensions: page 19 – 46.	–	Optional
☐ Step 8	Implement billing extensions. See: Billing Extensions: page 19 – 67.	–	Optional
☐ Step 9	Implement automatic invoice approve/release extension. See: Automatic Invoice Approve / Release Extension: page 19 – 100.	–	Optional
☐ Step 10	Implement AR transaction type extension. See: AR Transaction Type Extension: page 19 – 105.	–	Optional
☐ Step 11	Implement project verification extension. See: Project Verification Extension: page 19 – 110.	Optional	Optional
☐ Step 12	Implement project workflow extension. See: Project Workflow Extension: page 19 – 113.	Optional	Optional
☐ Step 13	Implement budget workflow extension. See: Budget Workflow Extension: page 19 – 119.	Optional	Optional
☐ Step 14	Implement verify organization change extension. See: Verify Organization Change Extension: page 19 – 125.	Optional	Optional
☐ Step 15	Implement billing cycle extension. See: Billing Cycle Extension: page 19 – 98.	–	Optional
☐ Step 16	Implement cost accrual. See: Revenue-Based Cost Accrual: page 8 – 80.	–	Optional
Cross Charge Client Extension Setup			
☐ Step 17	Implement the Provider and Receiver Organizations Override extension. See: Provider and Receiver Organizations Override Extension: page 19 – 152.	Optional	Optional

Table 17 – 2 Advanced Implementation Checklist (Page 2 of 3)

Step Number	Step Description	Project Costing	Project Billing
☐ Step 18	Implement the Cross Charge Processing Method Override extension. See: Cross Charge Processing Method Override Extension: page 19 – 154.	Optional	Optional
☐ Step 19	Implement the Transfer Price Determination extension. See: Transfer Price Determination Extension: page 19 – 157.	Optional	Optional
☐ Step 20	Implement the Transfer Price Override extension. See: Transfer Price Override Extension: page 19 – 160.	Optional	Optional
☐ Step 21	Implement the Transfer Price Conversion Override extension. See: Transfer Price Currency Conversion Override Extension: page 19 – 163.	Optional	Optional
☐ Step 22	Implement the Cost Accrual Identification extension. See: Cost Accrual Identification Extension: page 19 – 165.	Optional	Optional
Labor Cost Processing			
☐ Step 23	Implement overtime processing. See: Overview of Implementing Overtime: page 18 – 4.	Optional	Optional
Commitment Reporting			
☐ Step 24	Implement commitments from external systems. See: Implementing Commitments from External Systems: page 18 – 29	Optional	Optional
Management and Project Status Reporting			
☐ Step 25	Implement custom reporting strategy. See: Custom Reporting Using Project Summary Amounts: page 18 – 34.	Optional	Optional
Customer Invoice Printing			
☐ Step 26	Implement customer invoice printing strategy. See: Determining Your Invoice Printing Method: page 17 – 153.	–	Optional

Table 17 – 2 Advanced Implementation Checklist (Page 3 of 3)

Oracle Applications Implementation Checklist for Oracle Projects Integration

The following checklist includes the setup steps for other Oracle Applications that affect the integration of Oracle Projects with those applications. You should understand the implications of integration with Oracle Projects as you perform these setup steps for other Oracle Applications. See the Setup chapter of each product’s User’s Guide for comprehensive implementation information for the product.

You only need to complete the steps for the applications that you are implementing with Oracle Projects.

Step	Description	Project Costing	Project Billing
Oracle Payables			
☐ Step 1	Define your Payables Options for expense reports. See: Payables Options: page 18 – 52	Required	Required
☐ Step 2	Specify profile options for project–related invoice entry. See: Updating profile options for Integration with other Products: page 18 – 47	Required	Required
☐ Step 3	Set up the Account Generator to generate the supplier invoice account. See: The Account Generator in Oracle Projects: page 17 – 302	Required	Required
☐ Step 4	Define project–related distribution sets. See: Project Related Distribution Sets: page 18 – 54	Optional	Optional
Oracle Purchasing			
☐ Step 5	Specify profile options for project–related document entry. See: Updating profile options for Integration with other Products: page 18 – 47	Required	Required
☐ Step 6	Set up the Account Generator to generate project–related accounts in Oracle Purchasing. See: The Account Generator in Oracle Projects: page 17 – 302	Required	Required

Table 17 – 3 Integration Checklist (Page 1 of 3)

Step	Description	Project Costing	Project Billing
Oracle Receivables			
☐ Step 7	Specify system options for project invoice processing. See: Specifying system options: page 18 – 57	–	Required
☐ Step 8	Define transaction types. Transaction Types for Invoice Processing: page 18 – 58	–	Optional
☐ Step 9	Specify profile options for project invoices. See: Updating profile options for Integration with other Products: page 18 – 47	–	Required
☐ Step 10	Define Automatic Accounting in Receivables. See: Automatic Accounting in Oracle Receivables: page 18 – 61	–	Required
☐ Step 11	Define salesperson for sales credit. See: Salespersons and Credit Types: page 18 – 62	–	Optional
☐ Step 12	Setting up tax for project invoices. See: Applying tax to project invoices: page 18 – 67	–	Required
Oracle Inventory			
☐ Step 13	Define project-related transaction types in Oracle Inventory. See: <i>Oracle Inventory User's Guide</i>	Required	Required
Oracle Project Manufacturing			
☐ Step 14	Install and implement Oracle Project Manufacturing. See: <i>Oracle Project Manufacturing User's Guide</i>	Required	Required
Oracle Workflow			
☐ Step 15	Install and implement Oracle Workflow. See: <i>Oracle Workflow Guide</i>	Required	Required
☐ Step 16	Implement Project Workflow. See: Implementing Project Workflow: page 13 – 93.	Required	Required
☐ Step 17	Implement Budget Workflow. See: Implementing Budget Workflow: page 13 – 100.	Required	Required

Table 17 – 3 Integration Checklist (Page 2 of 3)

Step	Description	Project Costing	Project Billing
☐ Step 18	Implement project workflow extension. See: Project Workflow Extension: page 19 – 113.	Optional	Optional
☐ Step 19	Implement budget workflow extension. See: Budget Workflow Extension: page 19 – 119.	Optional	Optional
Oracle Activity Management Gateway			
☐ Step 20	Specify profile option for product licensing. See: Updating profile options for Integration with other Products: page 18 – 47	Required	Required
☐ Step 21	Set up controls over imported data. See: Control Actions Window: page 14 – 4	Required	Required
☐ Step 22	Set up source products. See: Source Products Window: page 14 – 5	Required	Required

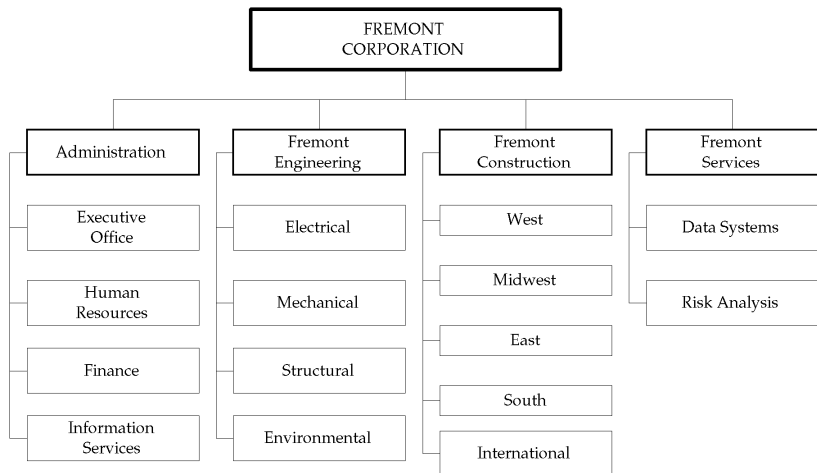
Table 17 – 3 Integration Checklist (Page 3 of 3)

About Fremont Corporation: An Example of Setting Up Oracle Projects

Fremont Corporation is a fictitious company based in Bay Grove, California, that provides engineering, construction, and services contracting to a wide variety of domestic and international customers. It consists of four divisions: Administration, Engineering, Construction, and Services.

These divisions are further divided into a number of groups. For example, Administration has four groups: the Executive Office, Human Resources, Finance, and Information Services.

Figure 17 – 1



To integrate its accounting needs, Fremont Corporation implements other Oracle Applications products such as Oracle General Ledger, Oracle Receivables, Oracle Purchasing, Oracle Payables, and Oracle Assets.

Fremont Corporation decides to implement Oracle Projects for each division and begins by forming an implementation team. This team, made up of managers who understand Fremont Corporation's accounting and project management practices, decides how Fremont Corporation should implement Oracle Projects to best suit the company's business needs. They also define the policies, procedures, and requirements needed to complete the implementation.

Throughout this guide, whenever we discuss a particular aspect of implementation, we discuss how Fremont Corporation's

implementation team chooses to implement Oracle Projects. These examples are usually at the end of each implementation step and have a gray background.

Fremont Corporation may not have implemented all of the features available in this release of Oracle Projects.

How to Use This Section

When it comes to implementing Oracle Projects, each business has different needs. Just as Oracle Projects lets you tailor project requirements to fit your business needs, the sections describing the setups of Oracle Projects are designed to be equally flexible. Here are some suggested ways to use these sections.

Use it as a Step-by-Step Implementation Guide

This guide gives you step-by-step instructions on how to implement Oracle Projects. Each step explains what other steps you should complete first, what the step accomplishes, and the mechanics of the step. After you plan your implementation, simply follow the steps and enter your business policies, procedures, and requirements using Oracle Projects forms.

Use it as a Tutorial

You can also use this guide as a learning aid by following Fremont Corporation's Oracle Projects implementation. You can learn the mechanics of implementation and get something tangible when you finish—an Oracle Projects system with which you can experiment.

Use it as a Springboard to Plan Your Implementation

If you follow Fremont Corporation's implementation, you will have a projects system that meets Fremont Corporation's requirements, which may differ from your own. To design your own implementation plan, read through the examples and look for requirements that are similar to or different from your project needs. By studying Fremont Corporation's implementation, you can learn more about how to implement your own policies, practices, and procedures using Oracle Projects.

Effective Dates

Most setup windows have fields for effective dates, which are the dates during which the item you are defining will be active and will appear on a list of values.

The From effective date is required, and the system usually defaults the system date in that field. The To effective date is usually optional; you

can leave this field blank if you want the item you are defining to be active indefinitely.

Date ranges are inclusive; an item becomes active on the From date and remains active through the end of the To date.

If you want to inactivate an item in the future, you can enter that future date in the To field.

For example, suppose you decide that you will no longer classify any projects as "Market Development" after the end of your calendar year. You set the Effective Date: To field to 31-DEC-2001, which prevents this classification code from appearing on lists of values, and prevents you from entering this classification code after December 31, 2001.

Similarly, you can prevent your employees from recording verbal payment agreements, effective tomorrow, by entering today's date in the Effective Date: To field for the agreement type "Verbal."

You can also use effective dates to record information that changes over time. For example, if you alter the bill rate for an employee on a specific date, you can enter the new bill rates and use the Effective Date fields to ensure that the old and the new bill rates are used as appropriate.

Oracle Applications Set of Books

A set of books identifies a company or fund within Oracle Applications that shares a common chart of accounts structure, calendar, and functional currency. When you set up Oracle Projects either as a standalone installation or integrated with other Oracle Applications, you need to set up one set of books for each set of products that share a common chart of accounts, calendar, and currency.

You perform the following steps to set up your Oracle Applications set of books:

- ☐ **Define your chart of accounts.** See: Defining Your Chart of Accounts, *Oracle General Ledger User's Guide*
- ☐ **Define accounting period types.** See: Defining Period Types, *Oracle General Ledger User's Guide*
- ☐ **Define your calendar.** See: Defining Calendars, *Oracle General Ledger User's Guide*
- ☐ **Define a set of books.** See: Defining Sets of Books, *Oracle General Ledger User's Guide*
- ☐ **Assign set of books to a responsibility.**

If you have already implemented a set of books while setting up a different Oracle Application, you can skip these steps.



Suggestion: For a description of Fremont Corporation's set of books, including its calendar and chart of accounts; which is comprised of company, cost center, and account segments, see: Fremont Corporation Set of Books: page 17 – 28

Oracle Projects Considerations when Defining your Accounting Flexfield

Dynamic Inserts

The Oracle Projects AutoAccounting feature requires that you allow dynamic insertion of new account combinations. You must define your Accounting Flexfield structure with the *Allow Dynamic Inserts* options enabled. See: Defining Key Flexfield Structures, *Oracle Applications Flexfield Guide*.

Segment Qualifiers

Two Oracle Projects audit reports, the GL Cost Interface Audit Report and the GL Revenue Interface Audit Report, list account combinations and require the following flexfield segment qualifiers for your Accounting Flexfield:

- Cost Center Segment
- Natural Account Segment
- Balancing Segment

Fremont Corporation Set of Books

This section describes the set of books Fremont Corporation uses. It includes Fremont's accounting periods and Accounting Flexfield, including company codes, account codes, and cost center codes.

You may want to familiarize yourself with Fremont's chart of accounts if you plan to experiment with Fremont's Oracle Projects implementation, or if you want to study the way Fremont implemented AutoAccounting.

Period Types and Periods

Fremont Corporation uses the following accounting period types in its calendar:

<i>Name</i>	<i>Number/Year</i>	<i>Year Type in Name</i>
Month	12	Calendar
Quarter	4	Fiscal
Year	1	Fiscal

Fremont Corporation uses the following calendar periods.

Fremont Corporation defines a calendar named 'Standard' for their calendar periods; Fremont uses a 5-4-4 (or 13 week) calendar.

Set of Books

Fremont Corporation uses a set of books that specifies their calendar, functional currency, and account structure.

Set of Books

Name	Fremont Corporation
Short Name	Fremont
Functional Currency	USD
Chart of Accounts	Fremont Corporation
Calendar	Standard
Period Type	Month
Allow Suspense Posting	No
Future Periods	2
Balance Intercompany Journals	Yes
Enable Budgetary Control	No
Require Budget Journals	No

Fremont Corporation Chart of Accounts Structure

Fremont Corporation uses a three-segment Accounting Flexfield to represent their chart of accounts. The Accounting Flexfield is constructed as follows:

Company – Cost Center – Account

For example, the account number 02–201–5100 corresponds to the Electrical group's (02–201) expense account for private, billable labor expense (5100).

Company Codes

Fremont Corporation has four subordinate organizations within the business group; Fremont defines company segments for each organization. The Company segment is Fremont's balancing segment.

Organization	Company
Administration	01
Fremont Engineering	02

Fremont Construction	03
Fremont Services	04

Company and Cost Center Codes

Notice that each of the lowest level organizations (groups) in Fremont Corporation's organization hierarchy corresponds to a cost center.

<i>Organization</i>	<i>Company</i>	<i>Cost Center</i>
Fremont Corporation		000
Administration	01	100
Executive Office	01	101
Human Resources	01	102
Finance	01	103
Information Services	01	104
Fremont Engineering	02	200
Electrical	02	201
Structural	02	202
Mechanical	02	203
Environmental	02	204
Fremont Construction	03	300
West	03	301
Midwest	03	302
East	03	303
South	03	304
International	03	305
Fremont Services	04	400
Data Systems	04	401
Risk Analysis	04	402

Account Codes

Fremont Corporation uses a similar set of accounts for each company and cost center, although not every company and cost center has each kind of account. The Account segment is Fremont's natural account.

<i>Account</i>	<i>Description</i>	<i>Type</i>
1000	Cash	Asset
1100	Accounts Receivable	Asset
1101	Unbilled Receivables	Asset
1200	Inventory	Asset
1500	Intercompany	Asset
1600	Prepayments – Employee Advances	Asset
2100	Unearned Revenue	Liability
2200	Accounts Payable, Employee	Liability
2300	Payroll Clearing	Liability
2400	Asset Usage Clearing	Liability
2500	Accounts Payable, Supplier Invoice	Liability
3100	Retained Earnings	Ownership
4100	Private Professional Fee Revenue	Revenue
4101	Public Professional Fee Revenue	Revenue
4102	Private Borrowed and Lent	Revenue
4103	Public Borrowed and Lent	Revenue
4200	Computer Fee Revenue	Revenue
4201	Vehicle and Equipment Revenue	Revenue
4202	Misc Asset Revenue	Revenue
4210	Usage Borrowed and Lent	Revenue
4300	ODC Revenue	Revenue
4400	Subcontractor Revenue	Revenue
4500	Bonus Revenue	Revenue
4600	Other Misc Revenue	Revenue

<i>Account</i>	<i>Description</i>	<i>Type</i>
5100	Private, Billable Labor Cost	Expense
5101	Public, Billable Labor Cost	Expense
5102	Private, Non-Billable Labor Cost	Expense
5103	Public, Non-Billable Labor Cost	Expense
5150	Marketing Labor Cost	Expense
5151	Government Marketing Cost	Expense
5152	Research & Development Labor Cost	Expense
5153	Administration Labor Cost	Expense
5154	Bid an Proposal Labor Cost	Expense
5170	Holiday Time	Expense
5171	Sick Time	Expense
5172	Vacation Time	Expense
5173	Overtime Labor Cost	Expense
5199	Transfer Out to Inventory	Expense
5200	Travel & Lodging Expense	Expense
5201	Meals Expense	Expense
5202	Miscellaneous Expense	Expense
5400	Computer Expense	Expense
5401	Vehicle and Equipment Expense	Expense
5402	Other Asset Expense	Expense
5500	Write-Offs	Expense
5600	Construction Subcontracting Expense	Expense
5610	Consulting Expense	Expense
5620	Miscellaneous Subcontract Expense	Expense
5630	Supplies	Expense

Employees and Organizations

Oracle Projects shares organization, job, and employee information with Oracle Human Resources. If your business does not currently use Oracle Human Resources, you define this data using the Oracle Human Resources windows provided with Oracle Projects. If you install Oracle Human Resources, you must define this data using an Oracle Human Resources login responsibility; you cannot use the windows provided with Oracle Projects.

Your implementation of Oracle Human Resources to work with Oracle Projects involves the following areas:

- Defining organizations and an organization hierarchy
- Defining jobs
- Entering employee information

If you have already implemented Oracle Human Resources, you can skip many of the steps included in this section. Ensure that the jobs and organizations you defined in Oracle Human Resources correspond to the data you want to use with Oracle Projects.

Organizations Overview

Organizations are departments, sections, divisions, companies, or other organizational units in your business. For example, Fremont Corporation organizations include the following hierarchy of divisions and groups:

- Administration division
 - Human Resources and Information Services groups
- Fremont Construction division
 - International group

If you work with contractors or other companies outside your business, you can define them as "external" organizations. For example, you might define an organization as external to record a work site address at which employees are stationed for extended periods of time.

See Also

Organizations in Oracle Projects: page 15 – 42

Representing Organizations *Oracle Human Resources User's Guide*

Creating an Organization *Oracle Human Resources User's Guide*

Organization Classifications

To control how an organization is used in Oracle Projects, you enable one or more of the following Organization Classifications:

- **Project/Task Owning Organization.** Project /Task Owning Organizations are organizations that can own projects and /or tasks in the operating unit.
- **Project Expenditure/Event Organization.** Expenditure /Event Organizations are organizations that can own project events (labor and non-labor) and can incur expenditures for projects in the processing operating unit.
- **Project Invoice Collection Organization.** If your business decentralizes its invoice collection within an operating unit, you must enable the Project Invoice Collection Organizations

classification for each organization in which you want to process invoices.

For more information about the organization classifications used in Oracle Projects, see: Organizations in Oracle Projects: page 15 – 42.

Locations

You can define an unlimited number of locations using the Location window. Location names appear in a list of values in any field where you enter a location such as the Organization and Enter Person windows.

Although the Location window allows you to enter detailed information about a location, Oracle Projects requires only that you provide information in the *Name* field for each location.

You define a location for each address your business uses. Give each location a short name and then assign it to an individual organization or to an employee. A location is easier to type than a full address, especially if many employees or organizations use it. If several organizations are located at the same address, you assign the corresponding location to each organization.

For example, if WHQ is the location for World Headquarters and West is the location for a West coast office, you assign all organizations at World Headquarters the location *WHQ*, and all organizations at the West coast office the location *West*.

You can use locations for reporting purposes. For example, you might assign one location to your corporate headquarters and another location to your large branch office on the East coast. Both of these organizations may include several subordinate organizations. You can create custom reports using these locations, such as one that breaks down the total revenue by the location of a project-owning organization.

See Also

Organizations: page 17 – 35

Employees: page 17 – 51

Site Locations *Oracle Human Resources User's Guide*

Fremont Corporation's Oracle Projects implementation team defines a location for Fremont's corporate headquarters, where most of its organizations are located.

Name	HQ
Description	Corporate Headquarters
City	Bay Grove
State	CA
Country	United States

Fremont's implementation team defines a location for the East coast field office of the Fremont Construction business unit.

Name	East
Description	Construction – East coast field office
City	Boston
State	MA
Country	United States

Fremont's implementation team also defines a location for the International field office of the Fremont Construction business unit.

Name	International
Description	Construction – International field office
City	Marseilles
State	
Country	France

Organizations

After you identify your business group, you need to specify all the organizations within the business group. These organizations may be divisions, groups, or other organizational units, as well as organizations representing your external contractors.

Oracle Projects uses organizations for the following business purposes:

- Project / task managing organizations
- Employee assignments
- Expenditure entry
- Non-Labor resource ownership

- Budgeting
- Defining Resources for Project Status Reporting
- Burden cost processing
- Invoice and collections processing
- Reporting

You use the Organization window to specify all the organizations within your business group. Organizations you define here appear in lists of values in the Organization Name fields throughout Oracle Projects.

 **Attention:** When you define organizations, you need to assign Organization Classifications to each organization that you want to use in Oracle Projects. Oracle Projects recognizes only those organizations with a classification of HR Organization. See: Organization Classifications: page 17 – 35.

See Also

Creating an Organization *Oracle Human Resources User's Guide*

Fremont Corporation consists of four divisions (Administration, Fremont Engineering, Fremont Construction, and Fremont Services), each of which includes several groups. Fremont's implementation team enters the following information to define its organizations. All the organizations are internal.

<i>Name</i>	Organization Classification(s)	<i>Location</i>
Administration	Project / Expenditure / Event Project Invoice Collection	HQ
Data Systems	Project / Expenditure / Event Project / Task Owning	HQ
East	Project / Expenditure / Event Project / Task Owning	East
Electrical	Project / Expenditure / Event Project / Task Owning	HQ

Environmental	Project / Expenditure / Event Project / Task Owning	HQ
Executive Office	Project / Expenditure / Event Project / Task Owning	HQ
Finance	Project / Expenditure / Event Project / Task Owning	HQ
Fremont Construction	Project / Expenditure / Event Project Invoice Collection	HQ
Fremont Engineering	Project / Expenditure / Event Project Invoice Collection	HQ
Fremont Services	Project / Expenditure / Event Project Invoice Collection	HQ
Human Resources	Project / Expenditure / Event Project / Task Owning	HQ
Information Services	Project / Expenditure / Event Project / Task Owning	HQ
International	Project / Expenditure / Event Project / Task Owning	International
Mechanical	Project / Expenditure / Event Project / Task Owning	HQ
Midwest	Project / Expenditure / Event Project / Task Owning	HQ
Risk Analysis	Project / Expenditure / Event Project / Task Owning	HQ
South	Project / Expenditure / Event Project / Task Owning	HQ
Structural	Project / Expenditure / Event Project / Task Owning	HQ
West	Project / Expenditure / Event Project / Task Owning	HQ

Organization Hierarchy

An organization hierarchy illustrates the relationships between your organizations. When you define a hierarchy, you tell Oracle Projects which organizations are subordinate to which other organizations. The topmost organization of an organization hierarchy is generally the business group.

You use the Organization Hierarchy window to specify your organization hierarchy. The organization hierarchy you define here appears in a list of values in the Implementation Options window.

You can create as many organization hierarchies as you need for different reporting and processing needs, and you can create multiple versions of an organization hierarchy. Oracle Projects uses the hierarchy version to determine which organizations are used for reporting and processing.

You specify a start organization to indicate which branch of your organization hierarchy you want Oracle Projects to recognize as the top of your hierarchy for a particular purpose. If you want to use your entire organization hierarchy, your top organization (generally the business group) is the start organization.

The following organization hierarchy versions are assigned in Oracle Projects:

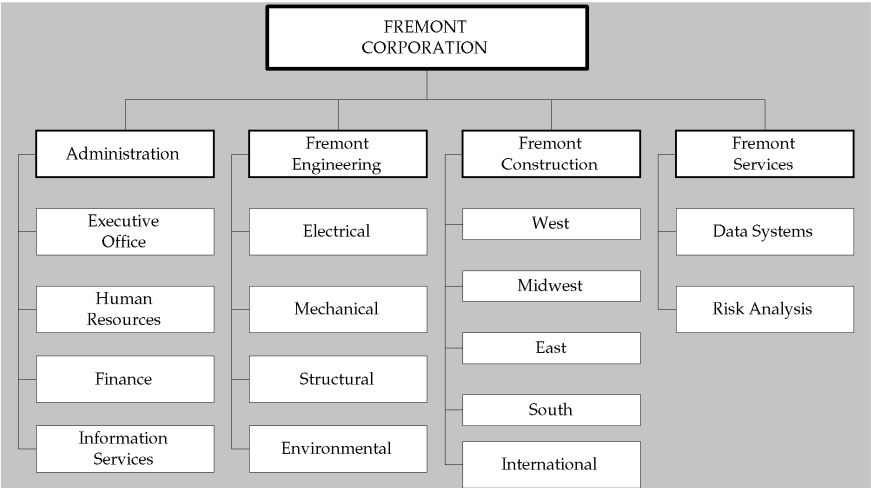
- A Project/Task Owning Organization Hierarchy Version is assigned to each operating unit. See: Project/Task Owning Organization Hierarchy: page 17 – 63.
- An Expenditure/Event Organization Hierarchy Version is assigned to each operating unit. See: Expenditure/Event Organization Hierarchy: page 17 – 65.
- A Default Reporting Organization Hierarchy Version is assigned to each operating unit. See: Default Reporting Organization Hierarchy: page 17 – 59.
- A Project Burdening Hierarchy Version is assigned to each business group. See: Specifying a Project Burdening Hierarchy: page 17 – 44.

If you currently use Oracle Human Resources, you can use existing hierarchies for Oracle Projects or create new hierarchies. If you do not currently use Oracle Human Resources, you must specify at least one hierarchy for Oracle Projects. You can change these organization hierarchy versions at any time. The exception to this is the Project Burdening Hierarchy. See: Specifying a Project Burdening Hierarchy: page 17 – 44.

See Also

Organization Hierarchies *Oracle Human Resources Documentation Set*

Fremont Corporation’s organization hierarchy contains four organizations directly subordinate to its business group. Those organizations in turn have several subordinate organizations of their own:



Fremont Corporation uses the following information to define its default reporting organization hierarchy:

Default Reporting Organization Hierarchy

Name Oracle Projects

Version

Number 1

Organization

Name Fremont Corporation

Fremont Corporation defines subordinate organizations as displayed in the graphic above.

Business Groups

A business group is the highest level of organization and the largest grouping of employees across which you may report.

Oracle Human Resources includes a predefined organization named *Setup Business Group*. We recommend that you modify the definition of this predefined business group rather than defining a new one. If you define a new business group instead of modifying the predefined *Setup Business Group*, you need to set the *HR: Security Profile* profile option to point the security profile for the new business group. Oracle Human Resources automatically creates a security profile with the business group name when you define a new business group. Oracle Human Resources incorporates all other organizations you specify into the business group you define. See: Setting Up Security in Oracle HRMS (*Oracle Human Resources User's Guide*).

You use the Organization window to retrieve the predefined *Setup Business Group* and change its name to the name of your business group to create your business group. The business group you define here appears in the list of values when you set up the *HR: Security Profile* profile option.

A business group is a special classification of an organization, so you also need to specify its organization type, location, and whether it is an internal or external organization. It is also essential to select the correct legislation code for a business group for correct functioning of Oracle Human Resources. You cannot change the legislation code after entering employees in a business group. See also: Entering Business Group Information (*Oracle Human Resources User's Guide*).



Attention: Employees, organizations, and other entities are partitioned by business group. If you set up more than one business group, your data will be partitioned accordingly. In addition, classifying an organization as a business group is not reversible. Be sure to plan your business group setup carefully. For more information, refer to the *Oracle Human Resources User's Guide*.

You must also specify required business group information. Note that even though you must fill in a value for every segment in the Business Group Flexfield, Oracle Projects uses only the following information:

- Short name
- Employee Number Generation
- Job Flexfield Structure
- Project Burdening Organization Hierarchy

For each Business Group, you specify a Project Burdening Organization Hierarchy and Version. Oracle Projects uses the Organization Hierarchy / Version to determine the default Burden

Multiplier when compiling a Burden Schedule. See: Burden Schedules: page 17 – 117

You must define the Organization Hierarchy before you associate it with a Business Group (see: Organization Hierarchy: page 17 – 40).

Oracle Human Resources links the predefined Job Flexfield structure to your business group.

Specifying a Project Burdening Hierarchy

Prerequisites

- ☐ Define organizations. See: Organizations: page 17 – 35.
- ☐ Define organization hierarchy. See: Organization Hierarchy: page 17 – 40.

► To specify project burdening hierarchies:

1. Select an Oracle Projects responsibility with access to the Organization window associated with the Business Group for which you are entering Legal Entities and Operating Units.

Perform these steps in the corresponding Oracle Human Resources windows if you have installed that application.

2. Navigate to the Organizations window (Setup > Human Resources > Organizations > Define).
3. Define an organization or query organizations that you defined as a business group. You must define the hierarchy before you designate it as the project burdening hierarchy.

Depending on your enterprise organization structure and business process, it is possible for the Project Burdening Hierarchy Version to be different from the Project / Task Organization Hierarchy Version, Expenditure / Event Organization Hierarchy Version, or Default Project Reporting Organization Hierarchy Version that you defined for any operating units associated with the business group. The Cost Distribution processes will not burden expenditures for expenditure organizations that are not in the Project Burdening Hierarchy.

If you add a new organization to the Project Burdening Hierarchy Version

If you add a new organization to the Project Burdening Hierarchy Version, you must

- add new burden multipliers for that organization in the appropriate burden schedules, or
- use the multipliers inherited from the parent organization as the burden multipliers for the organization

If you want to add burden multipliers to a particular schedule version for the organization, you need to compile the affected schedule version.

If you use the parent organization multipliers, you must submit the PRC: Add New Organization Burden Compiled Multipliers process. This process adds multipliers for this organization to all burden schedules versions for which you did not explicitly add multipliers.

If you do not run this process, you will encounter a rejection reason of 'Cannot find compiled multiplier' for transactions charged to this organization.

See Also

Organizations: page 17 – 35

Fremont Corporation does not use Oracle Human Resources.

Fremont’s implementation team queries up the predefined *Setup Business Group* and enters the following information to define its business group:

Organization

<i>Name</i>	<i>Type</i>	<i>Internal or External</i>	<i>Location</i>
Fremont Corporation	Company	Internal	HQ

Organization Classifications

Business Group

HR Organization

Fremont Corporation uses the following business group information, which is predefined with the *Setup Business Group*. Fremont needs to change only the Short Name and the Employee Number Generation field information.

To enter Business Group information, choose *Business Group* in the Organization Classifications zone, then choose *Business Group Information* in the Additional Organization zone.

Business Group Information

<i>Short Name</i>	Fremont
<i>Employee Number Generation</i>	Manual
<i>Applicant Number Generation</i>	Automatic
<i>Grade Flexfield Structure</i>	Grade Flexfield
<i>Group Flexfield Structure</i>	People Group Flexfield
<i>Job Flexfield Structure</i>	Job Flexfield
<i>Costing Flexfield Structure</i>	Costing Allocation Flexfield
<i>Position Flexfield Structure</i>	Position Flexfield
<i>Legislation Code</i>	United States
<i>Currency</i>	USD

Project Burdening Hierarchy

<i>Organization Hierarchy</i>	Oracle Projects
<i>Hierarchy Version</i>	1

Jobs

You use the Job window to define jobs. You should consider how you want to use jobs in Oracle Projects before you define your Job Flexfield. Oracle Projects allows you to budget and bill based on jobs. You can also include job titles on your invoices.

To define jobs, you must complete the following steps:

- Define job flexfield value sets
- Define job flexfield segments
- Define job flexfield segment values
- Define job titles

See Also

Defining Jobs *Oracle Human Resources User's Guide*

Representing Jobs and Positions *Oracle Human Resources User's Guide*

Job Flexfield Value Sets

The implementation team defined one value set for each segment. The value set uses mixed character segments 15 characters long using a validation type of *Independent*.

Fremont Corporation's implementation team defines a value set named *Job Level* for the Job Flexfield level segment:

Name	Job Level
Format Type	Char
Maximum Size	15
Alphabetic Characters	Yes
Uppercase Only	No
Validation Type	Independent

Fremont Corporation's implementation team defines a value set named *Job Discipline* for the Job Flexfield discipline segment:

Name	Job Discipline
Format Type	Char
Maximum Size	15

<i>Alphabetic Characters</i>	Yes
<i>Uppercase Only</i>	No
<i>Validation Type</i>	Independent

Job Flexfield Segments

Now you are ready to define the Job Flexfield's segments using the Key Flexfield Segments window.

You must use the Job Flexfield structure that you specified for your business group. Fremont used the default *Job Flexfield* structure for their business group.

You must use the columns SEGMENT1 and SEGMENT2 to properly report Job Level and Job Discipline segments in implementation reports and invoice formats. If you do not use these two columns, these values will be blank in reports and invoice formats; however, the job will be displayed correctly regardless of which segments you use. The *level* segment specifies the rank of a job, such as staff, senior, principal, and so on. The *discipline* segment specifies the job's vocation, such as engineer, clerk, developer, and so on. For example, the Job Flexfield *Senior Consultant* tells you that holders of this job have a senior rank and do consulting work. However, you do not have to use two segments for your Job Flexfield, or the two recommended segments.

See Also

Defining Key Flexfields (*Oracle Applications Flexfields User's Guide*)

Job Flexfield Segment Values

You need to specify valid values for the Job Flexfield segments. You use the Key Segment Values window to enter as many different values as you want. These values appear in a list of values in the Job window.

See Also

Defining Key Flexfield Segment Values *Oracle Applications Flexfields User's Guide*

Fremont Corporation plans a job flexfield with two segments: Job Level and Job Discipline. These are held in SEGMENT1 and SEGMENT2 columns. Fremont Corporation uses three levels of seniority. The implementation team defines values for the job level segment:

Level	Principal
	Senior
	Staff

Fremont Corporation employees work in one of four disciplines:

Discipline	Clerk
	Consultant
	Draftsman
	Engineer

Job Titles

When you finish defining your Job Flexfield, you use it to define individual job titles by combining different level and discipline segment values. For example, you can combine segment values to define job titles such as *Senior Engineer*, *Staff Scientist*, and so on.

You use the Job window to enter valid combinations of the two Job Flexfield segments and to provide effective dates.

See Also

Defining Jobs *Oracle Human Resources User's Guide*

Fremont Corporation has three levels each of Engineer and Consultant to recognize the greater expertise its employees gain over time. Fremont also has Staff Clerk and Staff Draftsman titles.

Fremont's implementation team specifies the following active job titles based on the Job Flexfield segment values:

Level	+	Discipline	=	Name
Senior		Engineer		Senior.Engineer
Staff		Engineer		Staff.Engineer
Principal		Engineer		Principal.Engineer

Staff	Clerk	Staff.Clerk
Staff	Draftsman	Staff.Draftsman
Senior	Consultant	Senior.Consultant
Staff	Consultant	Staff.Consultant
Principal	Consultant	Principal.Consultant

Employees and Employee Assignments

Use the Enter Person window to enter employee information. Oracle Projects requires the following information for employees:

- last name
- first name
- employee number
- start date
- organization
- job
- supervisor (for online expenditure approval)
- billing title
- expense address flag (home or office) for interfacing expense reports to Oracle Payables



Attention: If you have Oracle Human Resources installed, you cannot use Oracle Projects to define employee information. Use an Oracle Human Resources responsibility to define employees.

Use API to Load Employee Information

As an alternative to entering employee information manually, you can use an Application Programming Interface (API) to load employee data if you have fully installed Oracle Human Resources. The Oracle Human Resource Management Systems (HRMS) provides documentation on APIs for creating employee records in HRMS. Use the `create_gb_employee` API to create a UK employee, `create_us_employee` to create a US employee, and `create_employee` to create an employee for any other legislation.

For more information on these APIs, see *APIs in This Release (Oracle Human Resources Documentation Set)*. For technical information about using the HRMS APIs, see: *Technical Essays (Implementing Oracle HRMS)*.

See Also

Integrating with Oracle Human Resources: page 13 – 79

Enter Person *Oracle Human Resources User's Guide*

Fremont Corporation's Human Resources department enters the following information for three employees.

Donald Gray:

<u>Employee:</u>	<i>Last Name</i>	Gray
	<i>First Name</i>	Donald
	<i>Number</i>	1000
	<i>Expense Address</i>	Office
<u>Assignment:</u>	<i>Location</i>	HQ
	<i>Organization</i>	Risk Analysis
	<i>Job</i>	Principal. Engineer
	<i>Employee Billing Title</i>	Engineer

James Robinson:

<u>Employee:</u>	<i>Last Name</i>	Robinson
	<i>First Name</i>	James
	<i>Number</i>	1001
	<i>Expense Address</i>	Office
<u>Assignment:</u>	<i>Location</i>	HQ
	<i>Supervisor</i>	Gray, Donald
	<i>Organization</i>	Environmental
	<i>Job</i>	Senior.Engineer
	<i>Employee Billing Title</i>	Geologist

Amy Marlin:

<u>Employee:</u>	<i>Last Name</i>	Marlin
	<i>First Name</i>	Amy
	<i>Number</i>	1002
	<i>Expense Address</i>	Office
<u>Assignment:</u>	<i>Location</i>	HQ
	<i>Supervisor</i>	Gray, Donald
	<i>Organization</i>	Data Systems
	<i>Job</i>	Senior.Consultant
	<i>Employee Billing Title</i>	Systems Analyst

Customers

You define customers in either the Customers or Customer Summary window. Customers can be defined either in Oracle Receivables or in Oracle Projects. See: Entering Customers (*Oracle Receivables User's Guide*).

You must define the option for customer numbering when you implement Oracle Projects, whether or not you have also installed Receivables. If you have both Oracle Projects and Receivables installed, you enter the Receivables system options related to customers in Oracle Projects' System Options window.

In Oracle Projects, you use customers, customer addresses, and customer contacts to specify customers for which you are doing project work. Each Customer must have one primary bill-to address, one primary ship-to address, and one primary bill-to contact. The primary bill-to contact must be entered in the Primary Bill-To Contacts Role window and in the Business Purpose Details window.

In a multiple organization environment, customers are shared across operating units. However, you must define customer addresses for each operating unit. If multiple operating units are doing project work with the same customer, each operating unit must have an address defined for the customer.

Fremont Corporation's accounting department needs to add three customers to their customer database. Fremont uses the Quick Customer Entry form to define customers. Since each customer has only one address, the addresses are set up as the primary bill-to and ship-to sites. Each bill-to contact is identified as the primary bill-to contact since there is only one contact for each customer.

The City of San Francisco is a Fremont Corporation customer:

Customer

<i>Name</i>	City of San Francisco
<i>Number</i>	1000
<u>Address</u>	City Hall
	San Francisco, CA 94112, US
<u>Address</u>	City Hall
	San Francisco, CA 94112, US
<i>Bill</i>	Yes
<i>Ship</i>	Yes
<i>Market</i>	Yes

Address Contact

<i>Last Name</i>	<i>First</i>	<i>Title</i>	<i>Job Title</i>	<i>Bill</i>	<i>Ship</i>
Lasky	John	Mr.	AP Supervisor	Yes	Yes

The Port of Oakland is another Fremont Corporation customer:

Customer

<i>Name</i>	Port of Oakland
<i>Number</i>	1001
<i>Status</i>	Active
<i>Category</i>	Customer
<i>Profile Class</i>	DEFAULT
<i>Type</i>	External
<u>Address</u>	10 E. Seaside Oakland, CA 94130, US
<i>Bill</i>	Yes
<i>Ship</i>	Yes

Address Contact

<i>Last Name</i>	<i>First</i>	<i>Title</i>	<i>Job Title</i>	<i>Bill</i>	<i>Ship</i>
Winston	Ed	Mr.	AP Supervisor	Yes	Yes

Another Fremont Corporation customer is The Bay Group. The Bay Group has different bill to and ship to addresses:

Customer

<i>Name</i>	The Bay Group
<i>Number</i>	1004
<u>Address</u>	120 Spear Street San Francisco, CA 94120, US
<i>Bill</i>	Yes
<i>Ship</i>	Yes
<i>Market</i>	Yes

Address Contact

<i>Last Name</i>	<i>First</i>	<i>Title</i>	<i>Job Title</i>	<i>Bill</i>	<i>Ship</i>
Davies	J	Mr.	AP Supervisor	Yes	No
<u>Address</u>	Hunters Point South San Francisco, CA 94168, US				
<i>Bill</i>	Yes				

<i>Ship</i>	Yes
<i>Market</i>	Yes

Implementation Options

After you implement other Oracle Applications to work with Oracle Projects, you can define Oracle Projects options in the Implementation Options window. The Implementation Options tell Oracle Projects how to interface data with other Oracle Applications.

In a multiple organization environment, each operating unit has its own implementation options. Oracle Projects implementation options determine how data is interfaced with other Oracle Applications.

The implementation options also control cross-charging capability across operating units. Expenditures can be charged to a project in a different operating unit from the expenditure operating unit, as long as the two operating units are associated with the same GL set of books, HR business group, and PA period type, and the profile option PA: Allow Cross-Charging in Multi-Org is set to Yes for that responsibility.

Prerequisites:

- ☐ Define your set of books. See: Setting Up Oracle Applications Set of Books: page 17 – 27.
- ☐ Define a business group. See: Identify Your Business Group: page 17 – 42.
- ☐ Define organization hierarchies. See: Organization Hierarchy: page 17 – 40.

The Oracle Projects implementation options include the following groups of options:

- System: page 17 – 58
- Currency: page 17 – 60
- Project Setup: page 17 – 62
- Expenditures / Costing: page 17 – 63
- Billing: page 17 – 65
- Tax Defaults: page 17 – 68

System Implementation Options

Set of Books

If you are implementing Oracle Projects for a single organization, then you must specify a set of books to tell Oracle Projects which set of general ledger books to use. Oracle General Ledger, Oracle Receivables, Oracle Payables, Oracle Purchasing, and Oracle Assets must also use this set of books. Specify the set of books you defined when you implemented Oracle General Ledger for Oracle Projects.

If your implementation of Oracle Projects is for multiple organizations, Set of Books is a display-only field. Its value defaults from the Legal Entity for the operating unit.

Fremont Corporation uses only one set of books. (To review a complete description of Fremont Corporation’s set of books see: Fremont Corporation Set of Books: page 17 – 28.)

Set of Books	Fremont Corporation

Business Group

Business Group is a display-only field. The value in this field defaults from the business group assigned to the responsibility using the HR: Security Profile profile option. See: Profile Options in Oracle Projects: page B – 2.

Fremont Corporation specifies the *Fremont Corporation* business group in Oracle Projects.

Business Group	Fremont Corporation

Summarization Period Type

Specify a summarization period type, which is used when updating project summary amounts.

Oracle Projects maintains summary amounts as follows:

- Period-to-Date Amounts (PTD)
- Prior Period Amounts (PP)
- Year-to-Date Amounts (YTD)
- Project or Inception-to-Date Amounts (ITD)

You specify whether to maintain the summary period-to-date values (Period-to-Date and Prior Period) by PA Period or GL Period.

Fremont Corporation summarizes amounts by PA Period.

Summarization Period Type:	PA Period

See Also

Updating Project Summary Amounts: page 9 – 17

Update Project Summary Amounts Process: page 11 – 76

PA Period Type

Specify a Period Type, which is used to copy Project Accounting Periods from the calendar associated with the GL Set of Books. If you copy PA Periods from GL, Oracle Projects copies all of the periods of this Period Type to set up the PA Periods.

In a multiple organization environment, the PA Period Type is specified for each operating unit.

Default Reporting Organization Hierarchy

You specify an organization hierarchy and version to indicate which organization hierarchy of a Business Group you want Oracle Projects to use as the default reporting organization hierarchy. For more information on how Oracle Projects uses organizations, see: Organizations in Oracle Projects: page 15 – 42.

You specify a start organization to indicate which branch of your organization hierarchy you want Oracle Projects to recognize as the top of your hierarchy for reporting purposes. If you want to use your entire organization hierarchy, your top organization (generally the business group) is the start organization.

For example, if you define your organization hierarchy with four divisions under the top organization, you can specify one division as the start organization. Oracle Projects consequently recognizes only that division and its subordinate organizations as its default reporting hierarchy.

Fremont Corporation's implementation team specifies the *Oracle Projects* organization hierarchy as the Default Reporting Organization.

Fremont Corporation is the start organization since Fremont uses Oracle Projects on a corporate-wide basis. In this case, Fremont Corporation is also the top organization and the business group.

Default Reporting Organization Hierarchy	Oracle Projects
Version Number	1
Start Organization	Fremont Corporation

Currency Implementation Options

The currency implementation options control the default values for the currency attributes that are used to calculate currency exchange rates.

When you are setting up your system, Oracle Projects does not require you to enter the currency implementation options. However, if you enter transactions in foreign currencies, the system needs these values to provide default values. If the required values are missing, anyone attempting to enter foreign currency transactions receives an error message.

The Exchange Rate Date Type and Exchange Rate Type you enter in this window determine the exchange rate Oracle Projects uses to convert foreign currency transactions to the functional currency.

Functional Currency

This display-only field shows the functional currency of your company's set of books.

In a multiple organization environment, the set of books assigned to your login responsibility's operating unit determines the functional currency.

See Also: Oracle Applications Set of Books: page 17 – 27

Default Exchange Rate Date Type

Specify a default exchange rate date type for converting foreign currency transactions from the transaction currency to the functional and project currencies.

You select from the following exchange rate date types:

- PA Period Ending Date

If you select this option, Oracle Projects uses the PA period ending date for each transaction as the default exchange rate date when calculating the exchange rate.

If the PA period that includes the expenditure item date has an open status, the exchange rate date is the end date of that PA period. Otherwise, the exchange rate date is the end date of the next open PA period.

If you choose this option, the exchange rate is calculated as part of the cost distribution process, and no default date is displayed during expenditure entry.

See Also: PA Periods: page 17 – 69.

- Expenditure Item Date

If you select this option, Oracle Projects uses the transaction date as the default exchange rate date when calculating the functional and project currency exchange rates.

If you choose this option, the default date is displayed during expenditure entry.

For expense reports, Oracle Projects supports only one set of functional currency attributes for the entire expense report. Therefore, for either option, the functional currency exchange rate date calculation is based on the expenditure *ending* date, not the expenditure *item* date.

Overriding Functional and Project Exchange Rate Dates

When you enter a project, you can optionally enter a default project exchange rate date at the project and/or lowest task level that overrides the Exchange Rate Date Type implementation option.

When you enter transactions, you can override both the functional and project currency exchange rate dates. For more information about overriding the exchange rate date, see: Currency Conversion Attributes for Entered Transactions: page 4 – 59 and Currency Conversion Attributes for Imported Transactions: page 14 – 21.



Warning: If you change the Exchange Rate Date Type implementation option after you have processed foreign currency transactions, you lose some of the audit trail of historic rate date types. The currency amount and rate date are stored for each transaction, but the rate date type is stored only at the implementation option level. The system does not store the method of determining the rate date for a transaction.

Default Exchange Rate Type

Specify a default exchange rate type to be used for conversion of transactions from the transaction currency to the functional and project currencies.

Select the exchange rate type from a list of valid conversion rate types. Conversion Rate Types are entered in Oracle General Ledger.

See Also: Defining Conversion Rate Types (*Oracle General Ledger User's Guide*)

Project Setup Implementation Options

Project Numbering

You specify whether you want Oracle Projects to number projects automatically, or whether you plan to enter project numbers manually.

If you want Oracle Projects to number each project automatically upon creation, then specify a starting project number. Automatic project numbers are numeric; they do not contain letters or special characters and are sequentially numbered.

If you want to choose your own project numbers, or if want your project numbers to include both alphabetic and numeric characters, choose the manual project numbering method. Manual project numbers can be either alphanumeric or numeric.

Project templates are always numbered *manually*. The Project Numbering implementation option does not affect how project templates are numbered.

Fremont Corporation prefers alphanumeric, manually entered project numbers.

Project Numbering Method	Manual
Project Number Type	Alphanumeric

If you already have alphanumeric project numbers, you can either continue entering alphanumeric project numbers manually, or you can switch from manual to automatic numbering. If you choose the latter, keep in mind that while your alphanumeric project numbers will always exist in their current form, Oracle Projects automatically generates all future project numbers using numbers only.

In a multiple organization installation of Oracle Projects, project numbers (including project template numbers) are unique across operating units. When automatic project numbering is used, if a value is entered for next project number, the same number will be shown for all operating units that also use the automatic project numbering method.

Project/Task Owning Organization Hierarchy

You assign a project / task owning organization hierarchy to the operating unit to control which organizations can own projects and tasks. To own projects and / or tasks in the operating unit, an organization must have all of the following characteristics:

- The organization must belong to the project / task organization hierarchy assigned to the operating unit.
- The organization must have the project / task owning organization classification enabled.
- The project type class must be permitted to use the organization to create projects. This permission is determined when you define the organization.
- The organization must be active as of the system date.

Fremont Corporation’s implementation team specifies the *Oracle Projects* organization hierarchy as the Project / Task Owning Organization.

Fremont Corporation is the start organization for organizations owning projects and tasks.

Project/Task Owning Organization Hierarchy	Oracle Projects
Version Number	1
Start Organization	Fremont Corporation

Expenditures/Costing Implementation Options

Expenditure Cycle Start Day

You specify an Expenditure Cycle Start Day to indicate the day your seven-day expenditure week begins. If you specify Monday as the expenditure cycle start day, the week ending date on all expenditures,

including timecards and expense reports, is the following Sunday. You can choose any day of the week as your expenditure cycle start day.

Fremont Corporation’s expenditure week begins on a Monday. That is, each timecard begins on a Monday and ends on a Sunday.

Expenditure Cycle Start Day	Monday

Enable Overtime Calculations

You specify whether you want to use the Overtime Calculation program to calculate and charge overtime hours automatically.

You may need to customize the Overtime Calculation program if your business wants to use automatic overtime calculation.

See Also

Overtime in Oracle Projects: page 18 – 2

Fremont Corporation uses automatic overtime calculation.

Enable Overtime Calculations	Enabled

Interface Cost to GL

If you want to interface costs with Oracle General Ledger, you must enable the system options for labor and usage costs interface. If you set these fields to disabled, Oracle Projects does not interface cost transactions to Oracle General Ledger.

Fremont Corporation wants to interface costs with Oracle General Ledger.

Interface Labor Costs	Enabled
Interface Usage Costs	Enabled

See Also

Integrating with Oracle General Ledger: page 13 – 10

Expenditure/Event Organization Hierarchy

You assign an expenditure / event organization hierarchy to the operating unit to control which organizations have the following capabilities:

- incur expenditures
- own project events
- be assigned to a resource list as a resource

To incur expenditures, own events, or be assigned to a resource list, an organization must have the following characteristics:

- The organization must be in the expenditure / event organization hierarchy assigned to the operating unit.
- The organization must have the project expenditure / event organization classification enabled.
- The organization must be active as of the system date.

Fremont Corporation’s implementation team specifies the *Oracle Projects* organization hierarchy as the Expenditure / Event Organization.

Administration is the start organization for organizations owning projects and tasks.

Expenditure/Event Organization Hierarchy	Oracle Projects
Version Number	1
Start Organization	Fremont Corporation

Billing Implementation Options

Interface Revenue to GL

Oracle Projects predefines journal entry sources and categories to identify the source for Oracle Projects revenue transactions in Oracle General Ledger.

If you want to interface revenue with Oracle General Ledger, you need to enable the system option for revenue interface. If you disable the option, Oracle Projects does not interface revenue transactions to Oracle General Ledger.

Fremont Corporation wants to interface revenue with Oracle General Ledger.

Interface Revenue to GL	Enabled

See Also

Integrating with Oracle General Ledger: page 13 – 10

Invoice Numbering

Invoice Numbering Method

You specify whether you want Oracle Projects to number invoices automatically, or whether you plan to enter invoice numbers manually.

Invoice Numbering Type

Like manual project numbers, manual invoice numbers may be either alphanumeric or numeric. If you select Manual invoice numbering, you indicate whether you will use alphanumeric or numeric invoice numbers. If you select Automatic invoice numbering, Oracle Projects uses numeric numbering.

Next Number

If you want Oracle Projects to automatically number each invoice, you specify a starting invoice number.

In a multiple organization installation, invoice numbers are unique within an operating unit, not across operating units (unlike project numbers). If automatic invoice numbering method is selected, the next invoice number is operating unit-specific.

Fremont Corporation uses alphanumeric invoice numbers.

Invoice Numbering Method	Manual
Invoice Number Type	Alphanumeric

Centralized Invoice Processing

You specify whether you want invoice processing to be centralized, or if you want Oracle Projects to process your invoices at the project invoice collection organization level.

By default, the Centralized Invoice Processing check box is enabled.

If you want all of the project invoices for the operating unit to be processed using the Oracle Projects seeded transaction types, leave the check box enabled.

With decentralized invoicing, you allow organizations to process their own invoice collections. See: *Implementing Decentralized Invoice Processing*; page 18 – 58

In the Fremont Corporation, each division has its own cost center, Fremont reports receivables at its Division level.

Centralized Invoice Processing ☐

See Also

Defining Transaction Types for Invoice Processing; page 18 – 58

Invoice Batch Source

You need to specify an invoice batch source in Oracle Projects before you can interface invoices to Oracle Receivables.

Oracle Projects provides a predefined batch source name *PROJECTS INVOICES*; you must select this batch.

Fremont Corporation's implementation team specifies the *PROJECTS INVOICES* invoice batch source.

Invoice Batch Source PROJECTS INVOICES

See Also

Integrating with Oracle Receivables; page 13 – 60

Tax Defaults

Use this window to set up a hierarchy for the system to use when it assigns the default output tax code for customer invoice lines. You specify where you will enter the default tax codes, and in what order the system looks up each source to assign the default tax code.

Output Tax Code Defaults

The available sources for the default output tax code are:

- Customer Site
- Customer
- Project
- Expenditure Type / Event Type / Retention
- Client Extension
- Oracle Receivables System Options

A check box is displayed next to each source. Check each source you want Oracle Projects to use when it assigns default tax codes for invoice lines.

Hierarchy

Next to each of the sources you have checked, enter a number from 1 to 6. You must enter a different number for each source. The number for each source controls the order in which the system references these sources to derive default tax codes for invoice lines.

Oracle Receivables System Tax Code

This field displays the tax code currently selected as the Oracle Receivables tax code system option. As shown above, the tax code default hierarchy you define determines how the Oracle Receivables system tax code is used in determining default tax codes.

See Also

Setting Up Invoice Line Tax Codes: page 18 – 67

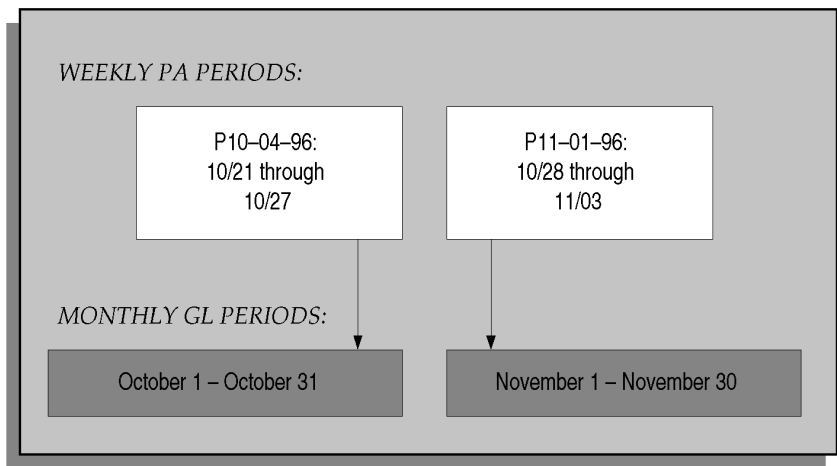
PA Periods

Project accounting periods (PA periods) track Oracle Projects data on a periodic basis. Your PA periods may be more frequent than your GL accounting periods. You can use PA periods for budgeting and for accounting for cost and revenue. You set a current PA reporting period for Oracle Projects to summarize project amounts and to track project status. See: Setting the PA Reporting Period: page 17 – 73.

PA Periods and GL Periods Compared

If you want to report project information more frequently than your GL periods allow, you can define PA periods that are shorter than your GL periods. For example, you can define weekly PA periods and monthly GL periods. You can also create PA periods that match existing Oracle General Ledger accounting periods (GL periods). However, defining PA periods that overlap your GL periods can create the need for numerous adjustments and journal entries if you wish to reconcile Oracle Projects with your General Ledger.

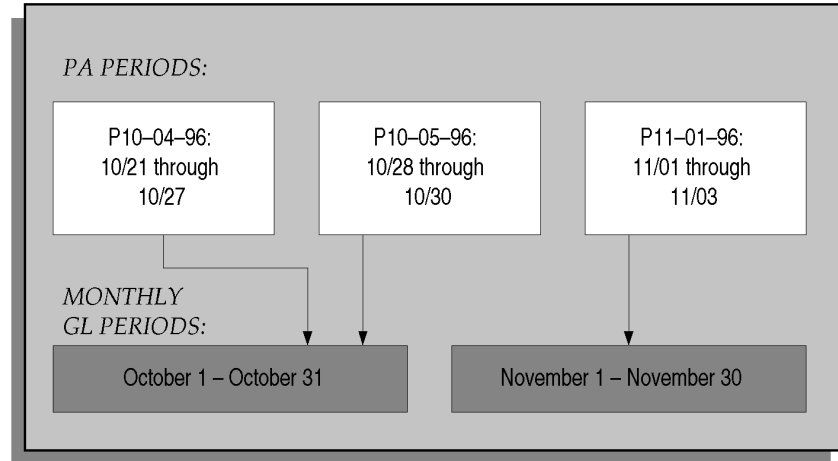
Figure 17 – 2 PA Periods vs. GL Periods



For example, in the situation illustrated above, the second weekly PA period, P11-01-96, includes the ending date of a GL period. Based on the PA period ending date (11 / 03), transactions falling into PA Period P11-01-96 would post to the GL period ending November 30. Some of the transactions may actually have occurred in October; so these items would be inaccurately accounted for in GL.

In addition, there would be no easy way to reconcile Oracle Projects with GL, because at the October GL closing, Oracle Projects would be mid-period. Adjustments would be necessary to reconcile the two systems.

Figure 17 – 3 Split PA Periods



Alternatively, you can split PA periods that would otherwise overlap the end of a GL period into partial weeks. In the example above, period P11-01-96 has been split into two periods, one beginning 10/28 and ending 10/31 (P10-05-96), and the other beginning 11/01 and ending 11/03. However, this method is very vulnerable to error, since every user entering and processing transactions (including time sheets) during a split week must enter and process transactions in the correct partial-week period.

The recommended way to resolve this conflict is to use 5-4-4 GL periods to match weekly PA periods, or some other matching scheme if PA periods are other than weekly. At calendar year-end, GL journal entries must be made in any case, to compensate for overlapping periods.

PA Period Effective Dates

You assign effective dates to each PA period. The effective dates signal the beginning and end of the PA period.

After a transaction is posted to a PA period from any operating unit, the General Ledger Accounting Calendar window will not allow changes to the period date range.

PA Period Open/Closed Status

You specify a status for each PA period. The status must be of one of the following:

Status	Description	Entry Allowed	Interface Transactions	Reopen Period
Never Opened	New periods that are in the future, and in which you do not want to allow entry.	NO	NO	n / a
Future	Future periods in which you allow entry but not interfacing transactions.	YES	NO	n / a
Open	Current periods.	YES	YES	n / a
Pending Close	Use for correcting unprocessed items. You can set a period to this status without checking for unprocessed items.	NO	YES	n / a
Closed	You cannot close a period if unprocessed items exist. A closed period can be reopened at any time.	NO	NO	YES
Permanently Closed	You cannot permanently close a period if unprocessed items exist. Once a period is permanently closed, you cannot reopen it.	NO	NO	NO

Table 17 – 4 (Page 1 of 1)

At least one PA period must be specified as Open or Future in order for Oracle Projects processes to process transactions. The PA Period with a status of Open or Future that includes a project transaction date is the PA Period for the transaction. However, if the transaction date falls in a period that is not Open or Future, Oracle Projects will find the next Open or Future PA Period and use it as the PA Period for the transaction. Oracle Projects will reject the transaction if it cannot find a PA Period for the transaction.

Defining Future PA Periods for Period-Phased Budgeting

If you plan to use period-phased budgeting, you must define the future PA and GL periods in which you want to budget. The periods must first

be defined in the calendar associated with your GL set of books and then copied using the Maintain PA Period Statuses window.

Defining PA Periods

Prerequisites

- ☐ Define PA periods in the calendar associated with your GL Set of Books. PA periods are automatically copied from the GL Set of Books calendar according to the PA period type you set up in the Oracle Projects Implementation Options. Additional PA periods can be copied by pressing the Copy From GL button in the PA Periods window. See: Defining Period Types and Adding Periods to a Calendar (*Oracle General Ledger User's Guide*)
- ☐ Set up implementation options. See: Implementation Options: page 17 – 57.

► To define PA periods:



Suggestion: Define your PA periods for a full year when you implement Oracle Projects. Keep the number of Future or Open periods to a minimum to improve system performance on costing and revenue accrual.

1. Navigate to the Maintain PA Period Statuses window.
2. Choose Copy from GL to copy a set of PA Periods from a GL Calendar according to the PA period type indicated in the Oracle Projects Implementation Options.

Fremont Corporation tracks all project accounting data weekly. Since Fremont begins their expenditure week on a Monday, they also start their PA periods on a Monday. Fremont's implementation team defines weekly PA periods for a full year. They assign the first two periods as having a status of Open, the next two with a status of Future, and all other future periods as Never Opened.

Changing the Status of a PA Period

► To change the status of a PA period:

If you implement Multiple Reporting Currencies, open and close PA periods in your primary set of books. Oracle Projects

automatically opens and closes PA periods in all of the associated reporting sets of books. You cannot close a PA period if outstanding transactions exist in your primary or associated reporting sets of books. See also: *Multiple Reporting Currencies in Oracle Applications*.

1. Navigate to the Maintain PA Period Statuses window.
2. Query the PA period for which you want to change the status.
3. Enter or select the new status.
4. Save.

Setting the PA Reporting Period

The screenshot shows the 'Maintain PA Period Statuses (**US** Vision Services US: USD)' window. It features a table with columns: Status, PA Period, From, To, and Reporting Period. A modal dialog box titled 'Set Reporting Period (**US** Vision Services US)' is open, displaying 'Current' as 'JUL-W1-97' and 'Next' as 'JUL-W2-97'. The dialog has 'OK' and 'Cancel' buttons. At the bottom of the main window are buttons for 'Copy from GL' and 'Set Reporting Period'.

You must specify a current PA Reporting Period for Oracle Projects to summarize project amounts and to track project status.

► To set the PA Reporting Period:

1. Navigate to the Maintain PA Period Statuses (PA Periods) window.

2. Choose **Set Reporting Period**.
3. In the *Next* box, enter or select the PA period you want to set as the new current PA reporting period.
4. Choose **OK**.

Setting the PA Reporting Period to an Earlier Period

When you attempt to set the PA Reporting Period to an earlier period than the current PA Reporting Period, the system checks to see if any projects have been accumulated in a PA period later than the new PA Reporting Period. If this is the case, a message is displayed indicating that if you change the PA Reporting Period you must run the Refresh Project Summary Amounts process. You have the option to cancel the change or proceed with the change.

Setting the PA reporting to a prior period may result in a large volume of additional processing if the change requires you to refresh the project summary amounts for most of your projects.

To see which projects would be affected by a PA Reporting Period change, you can run the Summarization Period Exceptions Report. See: Summarization Period Exceptions: page 10 – 46.

If you proceed with the change to an earlier PA Reporting Period when projects have been accumulated in a later PA period, you need to run the PRC: Refresh Project Summary Amounts process before viewing information in the Project Summary Inquiry (PSI) window. See: Refresh Project Summary Amounts: page 11 – 61.

PA Periods in a Multi–Organization Environment

In a multi–organization environment, each operating unit maintains its own PA period status. You use the Maintain PA Periods Status window to maintain the period status and the current reporting period.

In a single organization environment, all projects in your implementation of Oracle Projects share the same PA Reporting Period.

See Also

Date Processing in Oracle Projects: page 15 – 3

Update Project Summary Amounts: page 11 – 76

Defining Period Types, *Oracle General Ledger User's Guide*

Adding Periods to a Calendar, *Oracle General Ledger User's Guide*

Oracle Projects Lookups

Use the Oracle Projects Lookups window to review and maintain lookups that you use in Projects.

In some fields in Projects windows, you are required to enter a value from a predefined lists of values. Sometimes the values on the list are items you have defined in a setup window such as Credit Types. Other predefined sets of values are *lookups*, which you can view, and in some cases, update, in the Oracle Projects Lookups window.

Each lookup category is identified by its *lookup type*. For example, UNIT is a lookup type for which Currency and Hours are allowable codes.

The Access Level region in the Lookups window indicates at what level each lookup type is maintained. If the access level is Extensible for a lookup type, you can add lookup names to that lookup type.

You cannot change lookup code value after you save a lookup code. You can remove an obsolete lookup in the following ways: disable the code, enter an end date, or change the meaning and description to match a replacement code.

If you use Multiple Language Support (MLS), you can define lookups in each of your installed languages. Select Translations from the toolbar or menu to enter the lookup name and description in other languages. When a user selects lookups from a list of values, the lookups on the list will appear in the user's language. For more information, see: the *Oracle Applications User's Guide*.

For detailed information on defining and updating lookups, see: Lookups, *Oracle Applications Developer's Guide*, or see online help.

Extensible Lookups in Oracle Projects

You can add values for the following lookup types in this window:

- **Budget Change Reason:** Indicates why a budget changed. See: Budget Change Reasons: page 17 – 173.
- **Cost Base Type:** Specifies the use of cost bases. Oracle Projects predefines the cost base types *Burden Cost* and *Other*. See: Cost Bases and Cost Base Types: page 17 – 110.
- **Credit Type:** Categorizes revenue credit awarded to employees, such as sales credit, marketing credit, or quota credit. See: Credit Types: page 17 – 160.

- **Project Contact Type.** Specifies how the contacts of a customer are involved with a project. See: Project Customer Relationships and Contact Types: page 17 – 193.
- **Project Customer Relationship:** Specifies the relationship a customer has with a project. See: Project Customer Relationships and Contact Types: page 17 – 193.
- **Revenue Category:** Describes a source of revenue. Used to group expenditure types and event types for revenue and billing, budgeting, reporting purposes, and in AutoAccounting rules. See: Revenue Categories: page 17 – 83.
- **Service Type:** Categories of work that employees perform during the life of a project. See: Service Types: page 17 – 189.
- **Source Products:** Identifies the external systems you use with Oracle Projects, for use with Activity Management Gateway (AMG). See: Source Products: page 14 – 5.
- **Unit:** Specifies quantities or amounts of an expenditure item. Oracle Projects predefines the units *Currency* and *Hours*. See: Units: page 17 – 85.

Expenditure Definitions

Expenditure Classifications

Expenditure Types

An expenditure type is a classification of cost that you assign to each expenditure item you enter in Oracle Projects and is made up of the following elements:

- An expenditure category (used to group expenditure types for costing)
- A revenue category (used to group expenditure types for revenue and billing)
- A unit of measure
- One or more expenditure type classes

See Also

Expenditure Types: page 17 – 87

Expenditure Type Classes

An expenditure type class tells Oracle Projects how to process an expenditure item. Oracle Projects predefines all expenditure type classes.

Oracle Projects uses the following expenditure type classes to process labor costs for interfacing to Oracle General Ledger:

- Straight Time – Payroll straight time
- Overtime – Overtime premium on a project

Oracle Projects uses the following expenditure type classes to process non-labor project costs:

- Expense Reports – Oracle Projects expense reports are interfaced to Oracle Payables for employee reimbursement

- Usages – Asset usage costs are interfaced to Oracle General Ledger.
- Supplier Invoices – Oracle Payables supplier invoices are interfaced from Oracle Payables to Oracle Projects.
- Miscellaneous Transaction – Miscellaneous Transactions are used to track miscellaneous project costs. This expenditure type class is similar to usages. The difference is that, for miscellaneous transactions expenditure items, you are not required to specify a non-labor resource or a non-labor resource organization, as you are for usage expenditure items. Miscellaneous transactions may be used for the following costs:
 - Fixed assets depreciation
 - Allocations
 - Interest charges
- Burden Transaction – Burden transactions track burden costs that are calculated in an external system or calculated as separate, summarized transactions. These costs are created as a separate expenditure item that has a burdened cost amount, but has a quantity and raw cost value of zero. Burden transactions are interfaced to Oracle General Ledger. As with any other transaction in Oracle Projects, you can adjust and capitalize burden transactions, or accrue revenue or generate invoices for these transactions. See: Accounting for Total Burdened Costs: page 5 – 41.

Burden transactions that are not system-generated can be adjusted. See: Adjustments to Burden Transactions: page 4 – 34.

- Work In Process – This expenditure type class is used for Project Manufacturing WIP transactions that are interfaced from Manufacturing to Oracle Projects. You can also use this expenditure type class when you import other manufacturing costs via Transaction Import or when you enter transactions via pre-approved batch entry.
- Inventory – This expenditure type class is used for the following transactions:
 - Project Manufacturing transactions that are interfaced from Manufacturing or Inventory to Oracle Projects.
 - Oracle Inventory Issues and Receipts that are interfaced from Oracle Inventory to Oracle Projects in a manufacturing or non-manufacturing installation.

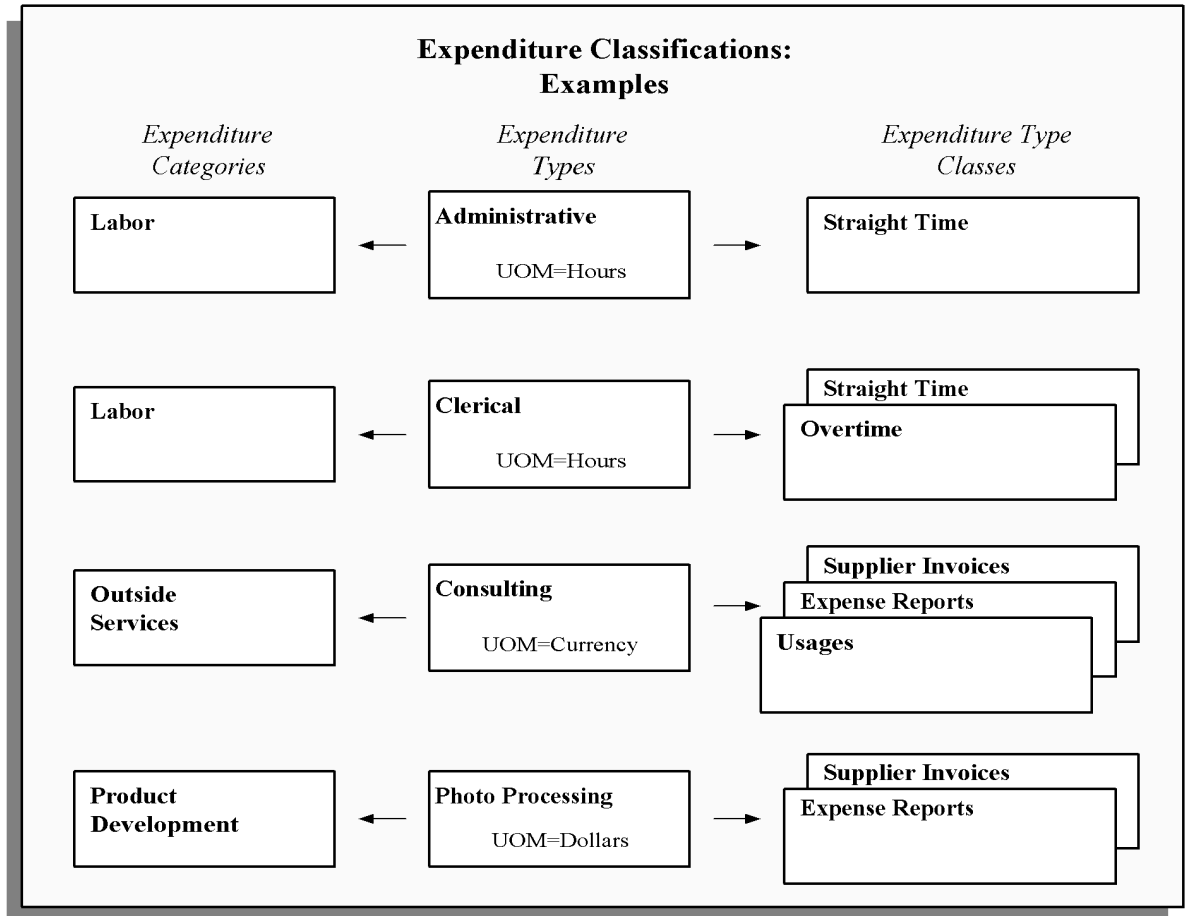
You can also use this expenditure type class when you import other manufacturing costs via Transaction Import or when you enter transactions via pre-approved batch entry.

The expenditure type class determines how an expenditure item is processed. For example, if you assign the Straight Time expenditure type class to an expenditure type, Oracle Projects uses labor distribution to calculate the cost of an expenditure item with that expenditure type and expenditure type class. If you assign the Expense Reports expenditure type class to an expenditure type, Oracle Projects uses expense report distribution to calculate the cost of an expenditure item with that expenditure type and expenditure type class, and interfaces it to Oracle Payables for payment.

Non-Labor Resources

You must specify the non-labor resource for every usage item you charge to a project. For each expenditure type classified by a Usage expenditure type class, you also define non-labor resources and organizations that own each non-labor resource.

Figure 17 – 4



See Also

Non-Labor Resources: page 17 – 91

Expenditure Categories

An expenditure category describes the source of your organization’s costs. For example, an expenditure category with a name such as *Labor* refers to the cost of labor. An expenditure category with a name such as *Supplier* refers to the cost incurred on supplier invoices.

You use expenditure categories when you define organization overrides, for budgeting, and for transaction controls. In addition, you can use expenditure categories in your AutoAccounting rules and in your reporting. Expenditure categories are used for grouping expenditure types for costing.

Defining Expenditure Categories

- **To define expenditure categories:**
 1. In the Expenditure Categories window, enter a unique name for the expenditure category and enter its description.
 2. Save your work.

See Also

Effective Dates: page 17 – 25

Expenditure Types Definition Listing: 10 – 8

Resources and Resource Lists: page 17 – 174

Fremont Corporation defines an expenditure category for each of the following expenditure categories:

<i>Name</i>	<i>Description</i>
Labor	Labor costs
Travel	Travel expenditures
In–House Recoverables	Use of corporate assets
Outside Services	Outside services
Material	Materials
Other Expenses	Expenses, excluding travel

Revenue Categories

A revenue category describes a source of your organization's revenue. For example, a revenue category with a name such as *Labor* refers to labor revenue.

Revenue categories are used for grouping expenditure types and event types for revenue and billing. You can use revenue categories for budgeting, for reporting purposes, and in your AutoAccounting rules.

Defining Revenue Categories

► **To define revenue categories:**

1. Navigate to the Revenue Category Lookups window.
2. Enter the following information for the revenue category.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Check the Enabled check box.
4. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Effective Dates: page 17 – 25

Revenue Categories Listing: page 10 – 13

Resources and Resource Lists: page 17 – 174

Fremont Corporation defines revenue categories for labor and others for all other revenue.

<i>Name</i>	<i>Description</i>

Fee	Fee Earned
Labor	Labor Revenue
Other	Non-Labor Revenue
Payment	Payment

Units

A unit of measure records quantities or amounts of an expenditure item. You assign a unit to each expenditure type. For example, you can specify the unit of measure Miles when you define an expenditure type for personal car use. You enter the quantity of personal car use in miles, and Oracle Projects calculates the cost of using a personal car by mileage.

If you want to calculate the cost of computer services by the amount of time a user uses a computer, you can define an expenditure type for computer services and assign it the unit Hours.

Oracle Projects predefines the units *Currency* and *Hours*.

Defining Units

► **To define a unit of measure:**

1. Navigate to the Unit Lookups window.
2. Enter the following information for the unit.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Effective Dates: page 17 – 25

Units Definition Listing: page 10 – 14

Fremont Corporation uses the predefined units Currency and Hours; the implementation team defines additional units for miles and days.

<i>Name</i>	<i>Description</i>
Currency	Currency
Hours	Hours
Miles	Miles
Days	Days

Expenditure Types

When you define an expenditure type, you assign it a unit, an expenditure category, a revenue category, and one or more expenditure type classes.

You also specify whether an expenditure type requires a cost rate. An expenditure type with the following attributes requires a cost rate:

- A unit other than currency
- A non–labor expenditure type class

See: Cost Rates: page 17 – 101.

For supplier invoice expenditure types, if you specify that a rate is required, Oracle Projects requires you to enter a quantity in Oracle Payables for invoice distributions using that expenditure type. When you interface the invoice distribution to Oracle Projects, Oracle Projects copies the quantity and amount to the expenditure item and calculates the rate. If you define a supplier invoice expenditure type with the Rate Required option disabled, then the quantity of the expenditure item is set to the amount you enter in Oracle Payables.

Multiple Expenditure Type Classes Per Expenditure Type

You can assign multiple expenditure type classes to an expenditure type. For example, an expenditure with the expenditure type *Materials* can have the expenditure type class *Supplier Invoice* if it originated in Oracle Payables, and the expenditure type class *Inventory* if it originated in Oracle Inventory. This example is illustrated below:

Expenditure Type	Module Where Expenditure Originated	Expenditure Type Class
Materials	Oracle Payables	Supplier Invoice
Materials	Oracle Inventory	Inventory

Table 17 – 5 (Page 1 of 1) Example of Multiple Expenditure Type Classes for One Expenditure Type

This feature allows you to use a single expenditure type to classify as many different costs as you require. You can use the same expenditure type for expenditures that have different origins (and therefore different accounting), but which should otherwise be grouped together for costing, budgeting, or summarization purposes.

Defining Expenditure Types

Prerequisites

- ☐ Define expenditure categories. See: Expenditure Categories: page 17 – 82.
- ☐ Define revenue categories. See: Revenue Categories: page 17 – 83.
- ☐ Define units. See: Units: page 17 – 85.

► To define expenditure types:

Navigate to the Expenditure Types window.

1. **Name:** Enter a unique name for the expenditure type.
2. **Expenditure Category and Revenue Category:** Enter the expenditure category and revenue category you want to associate with this expenditure type.
3. **Unit of Measure:** Enter the unit of measure you want Oracle Projects to use when calculating the cost for this expenditure type. You must enter Hours for labor expenditure types.
4. **Output Tax Code:** Optionally enter a default output tax code for invoice lines created for this expenditure type. See: Setting Up Invoice Line Tax Codes: page 18 – 67.

This output tax code is used as a default tax code for invoice lines, depending on the tax default hierarchy you have set up. See: Tax Defaults: page 17 – 68.

5. **Rate Required:** If this expenditure type requires a cost rate, check the Rate Required check box, then choose Cost Rate to navigate to the Expenditure Cost Rates window and enter a cost rate and its effective date(s).

If this expenditure type does not require a cost rate, do not check the Rate Required check box.

If you create a non-labor expenditure type without checking the Rate Required check box, you cannot subsequently require and enter a cost rate for that expenditure type. Instead, you must disable the expenditure type and create a new one that requires a cost rate and has a unique name. If you check the Rate Required check box when you create a non-labor expenditure type, you can change the cost rate at any time.

6. **Description and Dates:** In the Description, Dates region, enter a description for the expenditure type. You can optionally enter effective dates for the expenditure type.
7. **Expenditure Type Classes:** In the Expenditure Type Class region, enter the expenditure type class or classes you want Oracle Projects to associate with this expenditure type, to determine how to process the expenditure item.
8. Save your work.

See Also

Effective Dates: page 17 – 25

Expenditure Types Definition Listing: page 10 – 8

Expenditure Type Classes: page 17 – 78

Defining Cost Rates for Expenditure Types: page 17 – 101

Fremont Corporation's implementation team defines the following expenditure types.

Fremont defines cost rates for the expenditure types Computer Services, Vehicle, Personal Auto Use, and Field Equipment because these expenditure types use non-labor expenditure type classes and use units other than currency. For these expenditure types, Fremont enables the Rate Required check box.

<u>Name</u>	<u>Unit</u>	<u>Description</u>	<u>Expenditure Category</u>	<u>Revenue Category</u>	<u>Expenditure Type Class</u>
Administrative	Hours	Administrative labor hours	Labor	Labor	Straight Time
Clerical	Hours	Clerical labor hours	Labor	Labor	Straight Time
Other Labor	Hours	Other labor hours	Labor	Labor	Straight Time
Overtime	Hours	Overtime labor hours	Labor	Labor	Overtime
Professional	Hours	Professional labor hours	Labor	Labor	Straight Time
Air Travel	Currency	Air travel expenses	Travel	Other	Expense Reports

Automobile Rental	Currency	Auto rental expenses	Travel	Other	Expense Reports
Entertainment	Currency	Entertainment expenses	Other Expenses	Other	Expense Reports
Meals	Currency	Meal expenses	Travel	Other	Expense Reports
Other Expenses	Currency	Other expenses	Other Expenses	Other	Expense Reports
Personal Auto Use	Miles	Personal auto mileage	Travel	Other	Expense Reports
Computer Services	Hours	Use of corporate computers	In–House Recoverables	Other	Usages
Field Equipment	Hours	Use of company equipment	In–House Recoverables	Other	Usages
Other Asset	Currency	Use of other company asset	In–House Recoverables	Other	Usages
Vehicle	Days	Use of corporate vehicle	In–House Recoverables	Other	Usages
Construction	Currency	Outside construction work	Outside Services	Other	Supplier Invoices
Consulting	Currency	Outside consultants	Outside Services	Other	Supplier Invoices
Other Invoice	Currency	Other outside work	Other Expenses	Other	Supplier Invoices
Supplies	Currency	Supplies	Other Expenses	Other	Supplier Invoices
Misc Travel Expenses	Currency	Misc travel expenses	Travel	Other	Expense Reports
Lodging	Currency	Lodging expenses	Travel	Other	Expense Reports
Material	Currency	Materials	Material	Other	Supplier Invoices

Non-Labor Resources

You specify a name and a description of an asset, or pool of assets, to define a non-labor resource. For example, you can define a non-labor resource with a name such as *Earth Mover* to represent one earth mover your business owns. You can also define a non-labor resource with a name such as *PC* to represent multiple personal computers your business owns.

Every usage item you charge to a project must specify the non-labor resource utilized and the non-labor resource organization that owns the resource. You must define a non-labor resource for each usage expenditure type.

When defining your non-labor resources, you can choose only expenditure types with the *Usage* expenditure type class.

You can use the non-labor resource organization in your AutoAccounting rules for usage cost and revenue.

Prerequisites

- ☐ Define organizations. See: Organizations: page 17 – 35.
- ☐ Define expenditure types. See: Expenditure Types: page 17 – 87.

Defining Non-Labor Resources

► **To define non-labor resources:**

1. In the Non-Labor Resources window enter a name, description, effective date(s), and a usage expenditure type for each non-labor resource your organization owns.
2. For each non-labor resource you define, enter the organization(s) to which the resource is assigned in the Organizations region. Enter the effective dates during which the resource is owned by each organization.

The organizations you enter can include any organization from your organization hierarchy, regardless of whether the organization has the Expenditure Organization classification, and regardless of the start and end dates for the organization.

3. If you want to override the cost rate of the expenditure type by the resource and organization combination, choose Cost Rates and enter the cost rate and its effective date(s) in the Cost Rates Overrides window.

4. Save your work.

See Also

Effective Dates: page 17 – 25

Non-Labor Resources by Organization Listing: page 10 – 10

Fremont Corporation's implementation team assigns computers, surveying equipment, and vehicles to the appropriate groups:

Name	PC
Description	PC on the HQ Network
Expenditure Type	Computer Services
Organizations	Information Services Data Systems Finance Risk Analysis
Name	HQ1 Sequent
Description	Headquarters Accounting Sequent
Expenditure Type	Computer Services
Organizations	Information Services
Name	VAX 9000
Description	Data Systems VAX
Expenditure Type	Computer Services
Organizations	Data Systems
Name	Sparc
Description	Engineering, Services Sun SparcStation
Expenditure Type	Computer Services

Organizations	Fremont Engineering Fremont Services
Name	Survey
Description	Standard surveying equipment
Expenditure Type	Field Equipment
Organizations	Fremont Engineering
Name	Van
Description	Heavy Duty Van
Expenditure Type	Vehicle
Organizations	Fremont Construction West Midwest East South International
Name	Minivan
Description	Site Visit Minivan
Expenditure Type	Vehicle
Organizations	Fremont Construction West Midwest East South International
Name	Pickup Truck
Description	Heavy Duty Pickup
Expenditure Type	Vehicle
Organizations	West Midwest East

Fremont Corporation’s implementation team assigns the expenditure type of Other Assets to all divisions; this non–labor resource provides a ‘bucket’ non–labor resource to capture miscellaneous items.

Name	Other Assets
Description	Other Assets
Expenditure Type	Other Assets
Organization Name	Administration Fremont Construction Fremont Engineering Fremont Services

Transaction Sources

Transaction sources identify the source of external transactions you import into Oracle Projects using Transaction Import. For example, you can define the transaction source *Payroll* to identify expenditure items imported from an external payroll system.

The transaction source determines how Transaction Import processes transactions. Some transaction sources are system-defined, and you can create others to fit your business needs. When you create a transaction source, you control the Transaction Import processing by the options that you select.

Predefined Transaction Sources

Oracle Projects predefines several transaction sources. The following table lists some of the predefined transaction sources:

Transaction Source	Used to Import Records From ...
AP INVOICE	Oracle Payables (supplier invoices) WARNING: Do not use this transaction source when you run the PRC: Transaction Import program. It is intended only for use by the Oracle Projects processes to import Oracle Payables invoices.
ORACLE PAYABLES	Oracle Self-Service Expense
Oracle Self-Service Time	Oracle Self-Service Time
Time Management	Oracle Time Management records

Table 17 – 6 (Page 1 of 1)

Predefined Transaction Sources for Manufacturing and Inventory Costs

Oracle Projects predefines three transaction sources for importing expenditures from Oracle Manufacturing and Oracle Inventory:

Transaction Source	Used to Import ...
Inventory	manufacturing material costs
Inventory Misc	inventory issues and receipts entered in the Miscellaneous Transactions window in Oracle Inventory
Work In Process	manufacturing resource costs

Table 17 – 7 (Page 1 of 1)

If you import transactions from another manufacturing system, you must define your own transaction source.

Transaction Source Options

Transaction source options control how Transaction Import processes transactions. Following are the transaction source options:

Default Expenditure Type Class

Oracle Projects uses the default expenditure type class that you assign to a transaction source if an expenditure type class is not specified in the interface table. Oracle Projects provides this option to facilitate the migration of data from earlier releases of Oracle Projects.

Raw Cost GL Accounted

Select this option to indicate whether transactions imported from this transaction source have already been accounted for in GL. Oracle Projects expects that the external system has already posted the raw cost to the appropriate debit and credit accounts. None of the Oracle Projects processes will transfer these costs to GL or AP. See: Loading Items as Accounted or Unaccounted: page 14 – 18.

When you select this option, the Import Raw Cost Amounts option is automatically selected.

This option is enabled for manufacturing or inventory transactions with a transaction source of Inventory, Inventory Misc, or Work In Process.

Import Raw Cost Amounts

When a transaction source has this option enabled, the raw cost amount of the transactions has already been calculated (costed) are not modified after being imported into Oracle Projects. None of the Oracle Projects

processes will calculate raw cost amounts for these transactions. See: Loading Items as Costed or Uncosted: page 14 – 18.

The designation of a transaction as costed does not affect burdening, accounting, or interfacing to GL or AP. These processes are still performed on the transaction as they would be if it were imported as a non-costed transaction.

Import Burdened Amounts

When this option is selected for a transaction source, Oracle Projects expects the external system to provide burdened costs. If the transaction does not have a burdened cost amount, Transaction Import will reject the transaction.

When you select this option, the Import Raw Cost Amounts option is automatically selected.

Import MRC Amounts (only in MRC environments)

If you have implemented Multiple Reporting Currencies, this option appears in the Transaction Sources window for your primary set of books only.

When you enable this option, you indicate that transaction amounts in your functional currency and each associated reporting currency are provided by the external system. For transaction sources using this option, you must populate the PA_MC_TXN_INTERFACE_ALL table with the currency conversion rates and converted amounts for all transactions.

For transaction sources that do not have this option enabled, Oracle Projects calculates reporting currency amounts based on the rates stored in the GL_DAILY_RATES table.

For more information about multiple reporting currencies, see: *Multiple Reporting Currencies in Oracle Applications*.

Allow Duplicate Reference

Enable this option to allow multiple transactions with this transaction source to use the same original system reference. If you enable this option, you cannot uniquely identify the item by transaction source and original system reference.

Import Employee Organization

If you enable this option, the external system can optionally provide an expenditure organization that is different from the employee owning organization. If no expenditure organization is provided, Transaction Import will populate the expenditure organization with the employee owning organization.

Allow Interface Modifications

This option allows you to modify rejected transactions in the Review Transactions window after the import process is completed.

Purge After Import

If you select this option, items successfully imported from the transaction source are automatically purged from the interface table when the import process is completed.

Allow Reversals

If you enable this option, Oracle Projects allows reversals of expenditure batches or expenditure items for the transaction source. When you enable this option, the Allow Adjustments option is automatically enabled.

So that the originating external system can be reconciled with Oracle Projects, you must create corresponding reversals in the external system. In addition, if both this option and the Raw Cost GL Account option are enabled, you must generate corresponding reversing cost distribution lines for transactions that you reverse in Oracle Projects.

Allow Adjustments

If you enable this option, you can adjust imported transactions in Oracle Projects after you load them via Transaction Import.

This flag allows adjustments even if the implementation options Interface Labor Costs to GL and/or Interface Usage Costs to GL are disabled.

Adjustments that are enabled by this flag include any change that could result in a new GL account or cost amounts for an item, such as:

- Transferring an item to another project or task

- Splitting an item into two or more items (not allowed for burden transaction items)
- Recalculating raw and burden costs
(Raw cost values for transactions that were already costed when loaded into Oracle Projects are not changed if you mark the item for cost recalculation.)
- Reclassifying an item as billable or non-billable (or capitalizable or non-capitalizable)

If you do not allow users to adjust imported transactions in Oracle Projects, you can only make changes in the imported transactions as follows:

- First, adjust the transactions in the originating external system.
- Then, import the adjustment into Oracle Projects.

Process Cross Charge

If you import cross charge transactions that are processed by an external system, enable this option for that system's transaction source. If this option is enabled for a transaction source, Oracle Projects does not perform cross charge processing for transactions originating from that transaction source.

Pre Processing Extension

Enter the name of a PL / SQL procedure to be called before the Transaction Import process runs. You must enter the full name including the package, in the format *package.procedure*.

This option can be used for loading the Transaction Import Interface table, or for pre-import validations, or for other pre-import processing.

Post Processing Extension

Enter the name of a PL / SQL procedure to be called after the Transaction Import process runs. You must enter the full name including the package, in the format *package.procedure*.

This option can be used for recording the expenditure and expenditure item IDs generated by the Transaction Import process in the source system. It can also be used for other post-import processing.

Defining Transaction Sources

► To define a transaction source:

1. In the Transaction Sources window, enter the transaction source, and enter the expenditure type class.
2. Choose the desired options for the transaction source.
3. Enter the effective date(s). You must enter an Effective From date. The Effective To date is optional.
4. Enter a description.
5. Save your work.

See Also

Effective Dates: page 17 – 25

Project Manufacturing: page 13 – 82

Transaction Import: page 11 – 74

Transaction Import Interface: page 14 – 34

Transaction Sources Listing: page 10 – 14

Non–Labor Costing Definitions

Expenditure Type Cost Rates

An expenditure type cost rate is a currency amount that Oracle Projects multiplies by the expenditure type unit to calculate cost.

Defining Cost Rates for Expenditure Types

You define a cost rate in the Expenditure Types window by selecting an expenditure type and entering a cost rate for it. You can select only a non–labor expenditure type that requires a cost rate. You cannot define a cost rate for a non–labor expenditure type that does not require a cost rate. Instead, you must disable the expenditure type and create a new one that requires a cost rate and has a unique name.

In a multi–organization environment, expenditure types are set up once and are shared across all operating units. However, the cost rates for expenditure types are specific to each operating unit. Each operating unit must have cost rates set up for expenditure types in which expenditures are expected to be incurred.

Prerequisite

☐ Define Expenditure Types. See: Expenditure Types: page 17 – 87.

► **To define a cost rate for expenditure types:**

- You define costs rates when you define expenditure types. See: Expenditure Types: page 17 – 87.

See Also

Units: page 17 – 85

Expenditure Cost Rates Listing: page 10 – 7

Fremont Corporation defines cost rates for the following expenditure types:

<i>Name</i>	<i>Unit</i>	<i>New Rate</i>
Personal Auto Use	Miles	0.25
Computer Services	Hours	7.00
Vehicle	Days	25.00
Field Equipment	Hours	24.00

Usage Cost Rate Overrides

When you defined non-labor resources, you assigned each asset an expenditure type with the *Usages* expenditure type class. The cost rates you define for each expenditure type consequently apply to all non-labor resources classified with that expenditure type.

You can define a usage cost rate override for any non-labor resource. Usage cost rate overrides are defined by the non-labor resource and organization. The cost rate override applies only to a specific non-labor resource owned by that organization; if there are multiple non-labor resources with that expenditure type or multiple owning organizations of the same resource, they retain the existing expenditure type cost rate you define.

For example, if you want to override the expenditure type cost rate of personal computers, you define a usage cost rate override for personal computers. All other non-labor resources that share the same expenditure type as the personal computers retain the existing expenditure type cost rate.

In a multi-organization environment, non-labor resources are set up once and are shared across all operating units. For each of the non-labor resources that an operating unit may put in service, you must set up a cost rate for the associated expenditure type. If you wish to have a non-labor resource with different cost rates in different operating units, you can define operating unit-specific usage cost rate overrides for organizations in the business group associated with an operating unit.

Defining Usage Cost Rate Overrides

- **To define a cost rate for non-labor resources and an owning organization:**
 - You define usage cost rate overrides in the Non-Labor Resources window when you define Non-Labor Resources. See: Non-Labor Resources: page 17 – 91

See Also

Expenditure Types: page 17 – 87

Fremont Corporation’s implementation team overrides the expenditure type cost rate for PCs owned by the Data Systems group. The Computer Services expenditure type cost rate is \$7.00 per hour; Fremont changes the rate to \$3.00 per hour.	
<u>Non-Labor Resource</u>	
<i>Non-Labor Resource</i>	PC
<i>Expenditure Type</i>	Computer Services
<i>Organization</i>	Data Systems
<u>Usage Cost Rate Overrides</u>	
<i>Rate Override</i>	3.00

Labor Costing Definitions

Compensation Rules

A compensation rule determines how an employee is paid. You define a compensation rule for each pay type your business uses. For example, you can define a compensation rule for pay types such as exempt, non-exempt, uncompensated, compensated, or hourly.

When an employee works overtime on a project, Oracle Projects processes the overtime hours according to the employee's compensation rule. For example, if an employee's compensation rule is Hourly, the employee is eligible for overtime pay; if the employee's compensation rule is Exempt, the employee is not eligible for overtime pay.

You can also use compensation rules in your AutoAccounting rules.

Defining Compensation Rules

If your organization enters and calculates overtime hours manually, you can specify defaults for Oracle Projects to use when you enter overtime hours for an employee classified by this compensation rule. These values default to the Expenditure Items window.

Prerequisites

- ☐ Define an expenditure type with the expenditure types class Overtime. See: Expenditure Types: page 17 – 87 and Expenditure Type Classes: page 17 – 78.

► To define a compensation rule:

1. In the Compensation Rules window, enter the Compensation Rule and the Overtime Expenditure Type that you want to associate with the compensation rule. Oracle Projects will use this expenditure type when it automatically creates overtime expenditure items.

You must define the compensation rules listed in the Fremont example below to use the example Overtime Calculation program provided by Oracle Projects.

2. If your organization enters and calculates overtime hours manually, use the Defaults for Overtime Entry region to specify the default project and task.

If you want to assign a labor cost multiplier to a project’s task, you must enter a Project Number and a Task Number in the Defaults for Overtime Entry region.

- 3. Save your work.

See Also

Effective Dates: page 17 – 25

Overtime in Oracle Projects: page 18 – 2

Entering Pre-Approved Expenditure Batches: page 4 – 12

Compensation Rules Listing: page 10 – 6

Fremont Corporation uses the Oracle Projects Overtime Calculation program to automatically calculate overtime instead of calculating it manually. The following information defines only part of Fremont’s compensation rules definition.

Compensation Rule

Name Exempt

Overtime

Overtime Expenditure Type Overtime

Compensation Rule

Name Hourly

Overtime

Overtime Expenditure Type Overtime

Compensation Rule

Name Compensated

Overtime

**Overtime
Expenditure Type**

Overtime

Employee Cost Rates

An employee cost rate is the hourly rate you pay an employee. Each employee must have a cost rate and a compensation rule. The combination of a cost rate and a compensation rule determines the raw cost of using a particular employee on a project. Oracle Projects also uses an employee's compensation rule to calculate that employee's overtime premium if you implement Oracle Projects to automatically create overtime expenditure items.

Oracle Projects calculates an employee's straight time labor cost using the hourly rate that you define.

(Labor Hours x Hourly Labor Cost Rate) = Straight Time Labor Cost

Labor cost rates must start on an expenditure starting day, and employees can have only one labor cost rate per expenditure week. This means that you can change an employee's cost rate only at the beginning of an expenditure week.

In a multi-organization environment, employees are associated with a business group. An employee's work can be charged to any of the operating units that are associated with the employee's business group. If your business process allows an employee to work in a subset of these operating units, you must set up labor rates for each of the operating units in which the employee works. The system allows you to have different labor rates for the same employee in different operating units.

Prerequisites

- ☐ Define employees. See: Employees and Employee Assignments: page 17 – 51.
- ☐ Define compensation rules. See: Compensation Rules: page 17 – 104.
- ☐ Specify the expenditure cycle start day in the Implementation Options window. See: Implementation Options: page 17 – 57.

Defining Employee Cost Rates

► To define an employee cost rate:

1. In the Employee Cost Rates window, enter either the Employee Name or Employee Number.
2. Enter the Compensation Rule and hourly Rate for the employee.
Enter the Effective Dates during which the compensation rule and rate are valid for this employee.
3. Save your work.

See Also

Labor Cost Rates Listing: page 10 – 9

Labor Cost Rates By Organization Listing: page 10 – 9

Fremont Corporation uses the *Exempt* compensation rule for employees Donald Gray and Amy Marlin, and the *Compensated* compensation rule for James Robinson.

Employee	Cost Rate	Compensation Rule
Donald Gray	40 / hr	Exempt
Amy Marlin	35 / hr	Exempt
James Robinson	30 / hr	Compensated

Labor Cost Multipliers

A labor cost multiplier is a value by which Oracle Projects multiplies an employee's labor cost rate to calculate the employee's overtime premium cost rate:

$$(\text{Labor Cost Rate}) \times (\text{Labor Cost Multiplier}) = \text{Overtime Premium Labor Cost Rate}$$

Oracle Projects then multiplies this overtime premium labor cost rate by the number of overtime hours an employee works to calculate the overtime premium for that employee:

$$(\text{Overtime Premium Labor Cost Rate}) \times (\text{OT Hours}) = \text{Overtime Premium}$$

You define a labor cost multiplier for each kind of overtime your business uses such as double time, or time and a half.

For example, if you pay an employee double time for all overtime hours, you define a labor cost multiplier of 1.0. You multiply the employee's labor cost rate by 1.0 to calculate the employee's overtime premium labor cost rate.

If you pay an employee time and a half for all overtime hours, you define a labor cost multiplier of 0.5 to calculate half the employee's overtime premium labor cost rate.

An employee's total labor cost is the overtime premium plus the total number of hours that employee worked multiplied by the employee's labor cost rate:

$$(Overtime\ Premium + Straight\ Time\ Labor\ Cost) = Total\ Labor\ Cost$$

Defining Labor Cost Multipliers

► To define a labor cost multiplier:

1. In the Labor Cost Multipliers window, enter a unique Name for the labor cost multiplier you are defining. Enter a numeric value for the labor cost multiplier.
2. Save your work.

See Also

Overtime in Oracle Projects: page 18 – 2

Labor Cost Multipliers Listing: page 10 – 9

Effective Dates: page 17 – 25

Fremont Corporation uses labor cost multipliers for double time, time and a half, and uncompensated overtime. The negative multiplier for uncompensated overtime reverses the cost of any overtime hours for those individuals who do not get paid overtime.

Name	Multiplier
Double Time	1.0

Time and Half	0.5
Uncompensated OT	-1.0

Burden Costing Definitions

Burden Costing is a method of applying burden costs to raw costs, allowing you to track the total burdened costs of your projects.

To implement burdening, perform the following steps:

- Define cost bases. See: Cost Bases and Cost Base Amount Types: page 17 – 110.
- Define burden cost codes. See: Burden Cost Codes: page 17 – 112.
- Define burden structures. See: Burden Structures: page 17 – 113
- Define burden schedules. See: Burden Schedules: page 17 – 117.
- Use the View Burdened Costs window to test your cost plus processing setup. See: View Burdened Costs window: page 17 – 125.

Fremont Corporation's burden costing consists of the following configurations:

Multiple burden structures
Firm and provisional schedules
Separate burden structures for different purposes

See Also

Overview of Costing: page 5 – 2

Accounting for Total Burdened Costs: page 5 – 41

Cost Bases and Cost Base Types

Cost bases refer to the bases of raw costs used for applying burden costs. You assign cost bases to burden structures, and then specify the types of raw costs that are included in the cost base along with the types of burden costs that are applied to the cost base.

You can also use cost bases as groupings of expenditure types for use in billing extension calculations. These cost bases are not used for burdening, and are defined with a cost base type other than Burden Cost. When you assign these cost bases with a type other than Burden Cost to a burden structure, you can specify expenditure types for the

cost base, but you cannot specify burden cost codes for the cost base since the cost base is not used for burdening.

Cost base types refer to the use of cost bases. Oracle Projects predefines the cost base types *Burden Cost* and *Other*. Cost bases with the type *Burden Cost* are used in burden calculations. Cost bases with the a type other than *Burden Cost* are not included in burden calculations; these cost bases are used for grouping expenditure types for different purposes, such as for billing extension calculations.

► **To define cost bases and cost base types:**

1. In the Cost Bases window, enter a unique name for the cost base.

In the Report Order field, specify the order in which this cost base should appear for reporting purposes.

In the Type field, specify the type of this cost base.

Enter Effective Dates for the cost base.

Enter a description of the cost base.
2. If you want to define a cost base type, choose Cost Base Type to display the Cost Base Type Lookups window. Enter the following information for the cost base:
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
Check the Enabled check box to enable the cost base.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.
3. Save your work.

See Also

Effective Dates: page 17 – 25

Fremont defines the following cost bases. All of the cost bases have a type of Burden Cost, since they are used to group types of raw costs that are directly related to calculating burdened costs. Fremont does not define any additional cost base types.

<i>Cost Base</i>	<i>Report Order</i>	<i>Type</i>
Labor	10	Burden Cost
Material	20	Burden Cost
Expenses	30	Burden Cost

Burden Cost Codes

Burden cost codes represent the types of costs that you want to allocate to raw costs. You can use burden cost codes for internal costing, revenue generation, and billing. You can also use burden cost codes to report and account for on burden cost recovery components in Oracle Projects.

Prerequisite

- ☐ Define an Expenditure Type for burden cost codes that will be processed as separate, summarized burden transactions. See: Expenditure Types: page 17 – 87.

► **To define a burden cost code:**

1. In the Burden Cost Codes window, enter the Burden Cost Code and a Description.
2. Optionally assign an expenditure type to the burden cost code for creating separate burden transactions.

The expenditure type you enter must have the *Burden Transactions* expenditure type class assigned to it. (Only expenditure types with the *Burden Transactions* expenditure type class assigned to them are displayed in the list of values for this field).

3. Save your work.

Fremont defines many burden cost codes that correspond to the company's burden costs.

<i>Burden Cost Code</i>	<i>Description</i>

Fringe	Employer paid payroll costs, insurance, and pension
Overhead	Support staff, equipment rental, supplies, building rent, facilities
G&A	Corporate expenses like corporate staff and marketing
Materials Handling	Materials handling costs

See Also

Effective Dates: page 17 – 25

Accounting for Total Burdened Costs: page 5 – 41

View Burdened Costs window: page 17 – 125

Burden Structures

Burden structures group cost bases for a given use, and specify what types of raw costs are included in each cost base, and what burden costs are applied to the raw costs in each cost base. Your company may define many different burden structures; for example, you may define one for internal costing, one for revenue generation, and one for billing.

Defining Burden Structures

Prerequisites

- ☐ Define Expenditure Types. See: Expenditure Types: page 17 – 87.
- ☐ Define Cost Bases. See: Cost Bases and Cost Base Amount Types: page 17 – 110.
- ☐ Define Burden Cost Codes. See: Burden Cost Codes: page 17 – 112.

► To define a burden structure:

1. Navigate to the Burden Structures window.

2. **Header Information**

Enter a unique name and description for the burden structure.

Select Additive if you want to apply each burden cost code assigned to a cost base using the same precedence when calculating burden costs. Additive schedules automatically provide a default value of 1 to each burden cost code in the structure. Select Precedence if you want to specify the order in which each burden cost code in a cost base should be applied to raw costs.

Select Allowed if users can use this burden structure when defining a burden schedule override for a project or task. Select Default if you want this burden structure to appear as the default structure for burden schedule overrides for projects and tasks. You can only select one default structure for burden schedule overrides.

3. **Cost Base Assignment**

Enter the names of the cost bases included in this burden structure.

If you need to define additional cost bases, choose the Cost Bases button.



Suggestion: After you enter a cost base, we recommend that you enter all of the associated expenditure types and burden cost codes for the cost base before you enter the next cost base.

4. **Burden Cost Codes**

Enter the burden cost codes associated with a particular cost base. If you are using a precedence based structure, enter the precedence in which you want to apply each burden cost code to raw costs within the cost base.

If you need to define a new burden cost code, choose the New Burden Cost Codes button.

5. **Expenditure Types**

Enter the expenditure types associated with a particular cost base. Expenditure types represent the types of raw costs within a cost base.

Each expenditure type can belong to only one cost base having a type of *Burden Cost* within each burden structure so that transactions of that expenditure type are not burdened more than once.

If you do not assign an expenditure type to a cost base, transactions using that expenditure type are not burdened. The burdened cost for these transactions equals the raw cost of the transaction.

6. **Save your work.**

See Also

Effective Dates: page 17 – 25

Copying Burden Structures

When you copy a burden structure, Oracle Projects copies the following assignments from the existing ("From") structure to the new ("To") structure:

- Cost base assignments
- Burden cost codes
- Expenditure types

To copy an existing burden structure to a new burden structure, you must first enter header information for the new burden structure.

► To copy a burden structure:

1. In the Burden Structures window, review the copy from structure to ensure that it contains the information you want to copy to the new structure.
2. Clear the window and create the To structure, entering header information only.
3. Save your work.
4. Choose the Copy Structure button. The To field automatically defaults to the current copy To structure.
5. Enter the name of the burden structure you want to copy from.
6. Choose OK.

Fremont defines two burden structures: one standard corporate labor structure and one structure for building up costs for cost plus processing.

Structure	Labor Only Structure
Structure Type	Additive
Structure Usage in Override Schedule	Allowed
<u>Cost Base = Labor</u>	

Burden Cost Codes	Precedence

Overhead	1

Expenditure Types

Administrative

Clerical

Other Labor

Professional

Double Time

Time and Half

Structure	CP Buildup Structure

Structure Type	Precedence

Structure Usage in Override Schedule	Allowed, Default

Cost Base = Labor

Burden Cost Codes	Precedence

Overhead	10

Fringe	20

G&A	30

Expenditure Types

Administrative

Clerical

Other Labor

Professional

Double Time

Time and Half

Cost Base = Materials

Burden Cost Codes	Precedence

Materials Handling	25

G&A	30

Expenditure Types

Material

Cost Base = Expenses

<i>Burden Cost Codes</i>	<i>Precedence</i>
G&A	30

Expenditure Types

Air Travel
Automobile Rental
Entertainment
Equipment Rental
Lodging
Meals
Misc. Travel Expenses
Other Expenses
Other Invoice
Personal Auto Use
Supplies

Burden Schedules

Use the Burden Schedules window to define firm and provisional burden schedules. When you create a schedule, you associate a burden structure to the schedule. You can create an unlimited number of schedules; for example, you may define unique schedules for the different purposes of internal costing, revenue, and invoicing.

You must set up and compile burden schedules for each business group. Burden schedules are shared among operating units associated with the same business group. If organization burden multipliers are not explicitly defined in the Define Burden Schedule window, they will default from the next higher level organization in the Project Burdening Hierarchy defined for the business group.

You assign burden schedules to project types, projects, or tasks; project type assignments provide default schedules to a project. Whenever special multipliers are negotiated for a project, you can create project or task burden schedule overrides with the negotiated burden multipliers.

Prerequisites

- ☐ Define business groups. See: Business Groups: page 17 – 42.
- ☐ Define Implementation Options. See: Implementation Options: page 17 – 57.
- ☐ Define burden structures. See: Burden Structures: page 17 – 113.

Defining Burden Schedules

► To define a burden schedule:

1. In the Burden Schedules window, enter the name and description of the burden schedule you are defining.

Enter the default burden structure for this schedule, which is automatically used whenever you create a new revision. You can see the structure of a particular revision when you review revision details. You can change the default structure of the schedule at any time. Oracle Projects uses the new default structure for any new revisions that you create. You can update the default structure to create revisions that use a different burden structure for a given burden schedule.

2. Choose the Type of schedule, either Firm or Provisional.
3. In the Versions region, define revisions. You may have many different revisions of a particular schedule; for example, you may have a schedule revision for each quarter in your fiscal year. You also create schedule revisions when you want to use a new burden structure, enter new burden multipliers, or apply actual rates to provisional multipliers.

The start and end dates for revisions in a provisional schedule must match GL periods. For firm schedules, Oracle Projects provides you with the flexibility to use any date as the start or end date.

Whenever you create a new schedule revision, Oracle Projects automatically closes the previous open revision. The end date defaults to the date preceding the start date of the new revision.

Enable the Hold check box if you want to hold this schedule revision from compiling.

Choose the Details button to review the details of a particular revision.

Choose Actual if you want to apply actual multipliers to provisional revisions. See: Applying Actuals: page 17 – 123.

4. In the Multipliers region, enter multipliers for a schedule revision. You also use this region to compile burden multipliers.

Choose Copy to copy multipliers from one schedule revision to a new revision. See: Copying Multipliers: page 17 – 119.

5. Save your work.
6. After you have completed entry of all multipliers, choose Compile to compile new multipliers. When you compile a schedule, Oracle Projects automatically submits the Compile Rate Schedule Revision process. You can also use the Compile All Burden Schedule Revisions process to compile multiple schedules at one time.

See Also

Effective Dates: page 17 – 25

Burden Schedule Overrides: page 2 – 50

Copying Multipliers

Use the Copy Multipliers window to copy multipliers from one schedule revision to another. Using this feature, you can copy multipliers across schedules and schedule revisions. However, you can only copy multipliers between revisions that use the same burden structure.

You must create and save the Copy To revision before you can copy multipliers to the new revision.

Fremont defines different schedules to calculate burden cost for labor costing, internal costing, and billing. Fremont defines three burden schedules:

- Labor Billing Only
- Internal Costing
- Cost Plus Billing

Initially, provisional multipliers are used in the billing schedule. As better estimates are available, Fremont defines new revisions of burden schedules. Fremont defines the labor burden and internal costing schedules with firm multipliers, because the multipliers should not change for the year. Provisional multipliers are ultimately replaced by actual multipliers.

Fremont's implementation team first defines the standard schedule to use for labor costing on specific indirect projects. This schedule is based on firm multipliers, and consists of two revisions, one for 1993, and one for 1994.

Burden Schedule for Labor Burden Only

<i>Name</i>	Labor Burden Only
<i>Description</i>	Burden schedule for labor costing
<i>Structure</i>	Labor Only Structure
<i>Type</i>	Firm

Revisions

<i>Name</i>	1993 Multipliers
<i>Start Date</i>	01-JAN-1993
<i>End Date</i>	31-DEC-1993

Multipliers

<i>Organization</i>	<i>Burden Cost Code</i>	<i>Multiplier</i>
Fremont Corporation	Overhead	1.20

Revisions

<i>Name</i>	1994 Multipliers
<i>Start Date</i>	01-JAN-1994
<i>End Date</i>	31-DEC-1994

Multipliers

<i>Organization</i>	<i>Burden Cost Code</i>	<i>Multiplier</i>
Fremont Corporation	Overhead	1.25

Revisions

Name	1995 Multipliers
Start Date	01-JAN-1995
End Date	

Multipliers

Organization	Burden Cost Code	Multiplier
Fremont Corporation	Overhead	1.5

Fremont's implementation team next defines the standard schedule to use for internal costing of contract and capital projects. This schedule is based on firm multipliers, and consists of one revision.

Burden Schedule for Labor Costing

Name	Internal Costing
Description	Burden schedule for internal costing
Structure	CP Buildup Structure
Type	Firm

Revisions

Name	Revision 1
Start Date	01-JAN-1993

Multipliers

Organization	Burden Cost Code	Multiplier
Fremont Corporation	Overhead	0.95
Fremont Corporation	G&A	0.15
Fremont Corporation	Fringe	0.30
Fremont Corporation	Materials Handling	0.08

Next, Fremont's implementation team defines the standard schedule to use for billing. This schedule is based on provisional multipliers, and consists of two schedule revisions: one for each half of the calendar year. Burden costs for Overhead are higher for the Administration group, and lower for other divisions of Fremont Corporation.

Burden Schedule for Billing

<i>Name</i>	Cost Plus Billing
<i>Description</i>	Burden schedule for billing purposes
<i>Structure</i>	CP Buildup Structure
<i>Type</i>	Provisional

Revisions

<i>Name</i>	1993–1 Prov Multipliers
<i>Start Date</i>	28–DEC–1992
<i>End Date</i>	27–JUN–1993

Multipliers

<i>Organization</i>	<i>Burden Cost Code</i>	<i>Multiplier</i>
Fremont Corporation	Overhead	1.05
Fremont Corporation	G&A	0.15
Fremont Corporation	Fringe	0.35
Fremont Corporation	Materials Handling	0.05
Administration	Overhead	1.10

Revisions

<i>Name</i>	1993–2 Prov Multipliers
<i>Start Date</i>	28–JUN–1993
<i>End Date</i>	26–DEC–1993

Multipliers

<i>Organization</i>	<i>Burden Cost Code</i>	<i>Multiplier</i>
Fremont Corporation	Overhead	1.10
Fremont Corporation	G&A	0.15
Fremont Corporation	Fringe	0.35
Fremont Corporation	Materials Handling	0.05
Administration	Overhead	1.10

Revisions

Name	1994 Prov Multipliers	
Start Date	27-DEC-1993	
Multipliers		
Organization	Burden Cost Code	Multiplier
Fremont Corporation	Overhead	1.00
Fremont Corporation	G&A	0.16
Fremont Corporation	Fringe	0.30
Fremont Corporation	Materials Handling	0.05
Administration	Overhead	1.05
Fremont Engineering	Overhead	0.95
Fremont Services	Overhead	0.90
Fremont Construction	Overhead	0.80
Fremont Construction	Materials Handling	.015

Applying Actuals

You apply actuals by creating an actual schedule revision which replaces one or more provisional revisions. When you apply actual multipliers, the multipliers are applied retroactively to all transactions that were processed using the provisional revision being replaced. After you apply actual multipliers, you must process existing items to recalculate cost, revenue, or invoice amounts.

► To apply actuals:

1. In the Burden Schedules window, review the provisional schedule revisions that you want to replace with actual multipliers. Enter an End Date for any open provisional revisions if they do not already have an End Date.
2. Choose the Actual button to navigate to the Apply Actuals window.
3. Create an actual revision by entering a revision name in the Actual Revisions field.
4. Select the specific provisional revisions that you want to replace with the actual revision.

The effective dates of the actual revision defaults from the earliest provisional revision and the latest provisional revision respectively.

5. Choose OK to return to the Burden Schedules window. Notice that Oracle Projects creates a new revision for the actual revision you specified.
6. Enter actual burden multipliers in the Multipliers region. When you are finished entering actual multipliers, save your changes.
7. Remove the hold placed on the actual revision.
8. Save your work.
9. Choose the Compile button to complete the task.

Changing Burden Schedules

You can correct burden multipliers within a schedule revision, or you can create new schedule revisions to correct multipliers. After you create a burden schedule revision, or update your current schedule, you need to compile the multipliers.

► To correct burden multipliers:

If you need to correct a multiplier within a particular burden schedule revision, you just change the multiplier for the organization and burden cost code. You can correct multipliers for any schedule type.

1. Correct the burden schedule revision by changing multipliers, adding new multipliers, or deleting existing multipliers in the Multipliers region.
2. Choose Compile to compile the new multipliers for the revision.

When you compile the schedule revision, Oracle Projects marks all items that were processed using the burden schedule revision. You must reprocess these items by running the appropriate cost, revenue, and invoice processes.

► To create a new revision:

If you do not want to apply corrected multipliers retroactively, but want the new multipliers to affect all expenditure items in the future, create a new schedule revision. You use start and end dates to indicate the time period of the revision.

1. Create a new revision (or copy it from existing revision). Based on the start date of new revision, the old revision is automatically closed with an end date as the date preceding the new revision start date.

2. Enter organizations and multipliers in the Multipliers region.
3. Choose Compile to compile the new schedule revision.

When you compile the schedule revision, Oracle Projects marks all items that were processed using the burden schedule and have an expenditure item date that falls in the new revision's date range. You must then reprocess these items by running the appropriate cost, revenue, and invoice processes.

View Burdened Costs Window

Use this window to view the total burdened cost for particular project transaction criteria. You can also use this window to test your burden structure and burden schedule implementation.

To use this window, enter values in the first six fields of this window. Then choose Burden to obtain values for total burdened amounts in the Costing, Revenue, and Invoice fields. If the revenue and invoice totals are blank, the project is either an indirect or capital project or the criteria does not use a burden schedule for revenue accrual and invoicing.

To see the burden cost components that make up the total amounts, select the Costing, Revenue, or Invoice check boxes in the Details region. You can also view additional information about the burden schedule and burden cost code used to calculate the total burdened amount, such as the input multiplier and the compiled multiplier.

Indirect Costs

You can use Oracle Projects to track all costs your business incurs, including work that is not directly associated with project work.

You define as many indirect projects as you need to record various indirect costs.



Suggestion: Use multiple tasks to organize distinct subcategories of an indirect cost source. For example, if you record employee time off costs in one project, you can define tasks such as Sick Hours, Vacation, and Paid Holidays.

When your employees fill out their weekly timecards, they specify, as applicable, the project and task that corresponds to the appropriate indirect cost.

For example, if an employee takes a sick day during the expenditure week, that employee's timecard displays the indirect project and task your business uses for time off hours, along with one or more additional projects and tasks on which the employee has worked.

The following examples illustrate how Fremont Corporation defined indirect projects for cost collection:

- Tracking Administrative Labor Costs: page 17 – 126
- Tracking Employee Time Off Costs: page 17 – 128
- Tracking Overtime and Premium Labor Costs: page 18 – 2

In a multi-organization environment, projects are owned by an operating unit. You can define as many indirect projects as you need in each operating unit to record indirect costs.

Tracking Administrative Labor Costs

Fremont Corporation records all labor hours its employees spend on general administrative work in an indirect project.

Fremont generally consolidates a variety of administrative labor hours in one indirect project; occasionally, however, Fremont creates a distinct administrative work project to record hours spent on specific efforts. For example, Fremont created an indirect project to record hours spent on implementing Oracle Applications.

Members of Fremont's administrative support staff submit weekly timecards showing hours to be charged to the indirect project for administrative work. In addition, project managers periodically charge

hours to this project for the time they spend writing semiannual performance reviews and performing other administrative tasks.

Fremont uses the resulting project information, together with a summary of other expenses such as rent, insurance, and cost of capital, to periodically review its bill rates and markups to ensure that the company is recovering the cost of labor.

Fremont uses the Projects window to enter the following administrative work project.

Project

Number	Admin
Name	Administrative Work
Description	This project is used to record general administrative work. All costs are charged to the cost center of the employee performing the work.
Organization	Finance
Status	Permanent
Public Sector	No
Type	Overhead

Define administration tasks

Since Fremont consolidates all administrative labor hours, the Administrative Work project needs only one task:

Task

Task Number	Admin
Task Name	Administrative Work
Description	This task holds general administrative labor
Organization	Finance
Service Type	Administration

Fremont implemented AutoAccounting to use the Administration service type to charge administrative labor to the appropriate expense account.

Tracking Employee Time Off Costs

Fremont Corporation records time off hours in an indirect project. These hours represent one source of Fremont’s overhead costs since Fremont cannot charge the hours directly to a paying customer’s project and, therefore, earns no revenue for them.

When a Fremont employee uses sick, vacation, or holiday benefits, the employee fills out a timecard as usual, but indicates the time off project rather than a direct project on which the employee may also work. Fremont uses different project tasks to distinguish between hours employees record as sick time, vacation time, or holiday time.

Fremont uses the Projects window to enter the following time off project.

Project:

Number	Time Off
Name	Time Off
Description	This project is a holding area for all time off hours of Fremont Corporation
Organization	Human Resources
Status	Permanent
Public Sector	No
Type	Overhead

Define time off tasks

Fremont defines three different tasks for the Time Off project to distinguish between sick hours, vacation hours, and holiday hours. Fremont assigns each task a different service type and implements AutoAccounting to use the service type on each task to distribute time off costs to the appropriate expense accounts. See: Defining Service Types: page 17 – 189.

Task Number	Sick
Task Name	Sick Hours
Description	This task holds all sick hours for Fremont Corporation
Organization	Human Resources
Service Type	Sick
Task Number	Vacation
Task Name	Vacation Hours
Description	This task holds all vacation hours for Fremont Corporation
Organization	Human Resources
Service Type	Vacation
Task Number	Holiday
Task Name	Holiday Hours
Description	This task holds all holiday hours for Fremont Corporation
Organization	Human Resources
Service Type	Holiday

See Also

Accounting Transactions for Costs: page 15 – 16

Billing

Complete the following steps to set up Oracle Projects for billing:

- **Define Invoice Rounding account transaction.** See: Invoice Rounding: page 17 – 141.
- **Define billing cycles.** See: Billing Cycles: page 17 – 130.
- **Define payment terms.** See: Payment Terms: page 17 – 134.
- **Define agreement types.** See: Agreement Types: page 17 – 135.
- **Define bill rate schedules.** See: Bill Rate Schedules: page 17 – 137.
- **Define invoice formats.** See: Invoice Formats: page 17 – 148.
- **Define credit types.** See: Credit Types: page 17 – 160.
- **Define event types.** See: Event Types: page 17 – 162.
- **Assign event types for cost-to-cost revenue.** See: Assigning Event Types for Cost-to-Cost Revenue: page 17 – 165.
- **Set Up Percent Complete Revenue and Invoicing, if needed.** See: Setup Requirements for Percent Complete Revenue and Invoicing: page 17 – 167.
- **Set up Invoice Line Tax Codes, if needed.** See: Setting Up Invoice Line Tax Codes: page 18 – 67.
- **Set up Invoice Line Tax Exemptions, if needed.** See: Tax Exemptions (*Oracle Receivables User's Guide*).
- **Implement billing extensions, if needed.** See: Billing Extensions: page 19 – 67.
- **Implement labor billing extension , if needed.** See: Labor Billing Extensions: page 19 – 46.

Billing Cycles

One of the factors that impact invoice generation is how often and on what dates a project is billed. A project's billing schedule is determined by the company rules, the agreement entered between your company and the customer, and the project type.

You must define billing cycles that fulfill your business needs, and assign a billing cycle to each project. The billing processes derive the next billing date based on the billing cycle definition.

You can define and maintain as many billing cycles as you need. A billing cycle code can optionally call a customized client extension to derive the next billing date.

Defining Billing Cycles

► To define a billing cycle:

1. In the Billing Cycles window, specify the billing cycle name, type, value, effective dates, and a description of the billing cycle.
2. Save your work.

See Also

Billing Cycle Extension: page 19 – 98

Components of an Invoice: page 8 – 54

Project Types Window Reference: Billing Information: page 17 – 201

Creating a Project Template: page 2 – 29

Billing Setup: page 2 – 51

Billing Cycles Window Reference

Name. Enter a unique, descriptive name for the billing cycle.

Type. Select the bill cycle type that you want to associate with the billing cycle. You can choose any predefined billing cycle type:

Bill Cycle Days The cycle is defined by the number of days that elapse between each automatic invoice generation date for a project. The entry you make under *Value* is the number of days in the cycle.

Date of Month Billing is done on the same day of each calendar month. You enter the bill date under *Value*.

Bill dates 29 through 31 are valid in some months only. For the months in which the date is invalid, Oracle Projects uses the last day of the month.

Last Day of Month The last day of each calendar month.

First Day of Month	The first day of each calendar month.
Last Weekday of Month	The last of a particular weekday in each calendar month. You enter the weekday under <i>Value</i> .
First Weekday of Month	The first of a particular weekday in each calendar month. You enter the weekday under <i>Value</i> .
Project Completion Date	Completion date of the project.
Weekday Each Week	On the same day of each week. You enter the weekday under <i>Value</i> .
User-Defined	This type is used to indicate that the logic to derive the billing date has been coded in a billing cycle extension. You must customize the billing cycle extension to calculate the billing cycle that you require.

Value. Enter the value that completes the information for the billing cycle type you entered. Following are the valid entries, depending on the billing cycle type:

Integer	For the Bill Cycle Days type, enter an integer greater than or equal to zero.
Range 1 through 31	For the Date of Month type, enter an integer in the range 1 through 31.
Monday through Sunday	For the Last Weekday of Month, First Weekday of Month, or Weekday Each Week type, select a weekday. Valid entries are Monday through Sunday.
User-Defined	For a user-defined billing cycle type, the <i>Value</i> can be anything meaningful for the client extension. Oracle Projects is seeded with three validated values (two date values and one day in the week value). You can specify two additional non-validated values. Weekdays are stored in the database as integers 1 to 7 for Monday to Sunday.

Effective Dates. Enter the Effective Dates during which the billing cycle is valid.

Description. Enter a description for the billing cycle.

Payment Terms

You associate payment terms with your customer invoices to determine your customer's payment schedule. You specify payment terms when you define agreement types and agreements in Oracle Projects. These payment terms are used for each invoice that is funded by a particular agreement. Payment terms can include discount percents for early payment and due dates for a total invoice or for parts of an invoice.

You use the Oracle Receivables Payment Terms window to define payment terms that reflect your company's procedures.

See Also

Payment Terms *Oracle Receivables User's Guide*

Agreement Types: page 17 – 135

Since Fremont Corporation uses 30 Net which is predefined, the implementation team does not define any other payment terms.

Agreement Types

Agreement types categorize the various kinds of agreements you negotiate with clients. For example, you can define one agreement type for all verbal agreements and another for all agreements using purchase orders.

If you define an agreement type and limit revenue, any project funded by that agreement type stops accruing revenue and generating invoices when it reaches the revenue limit. If you define an agreement type and do not limit revenue, any project funded by that agreement type issues a warning when the revenue limit is exceeded, but does not stop accruing revenue or generating invoices. This is referred to as a *hard limit* or a *soft limit*.

Defining Agreement Types

Prerequisite

- ☐ Define Payment Terms. See: Payment Terms: page 17 – 134.

► To define an agreement type:

1. In the Agreement Types window, enter a Name and Description of the agreement type you want to define.

If you want payment terms to default when you enter an agreement with this agreement type, enter the Default Terms.

Enable the Default Revenue Limit option if you want the Hard Limit option of the Agreements window to be enabled by default when you enter an agreement with this agreement type.

2. Save your work.

See Also

Effective Dates: page 17 – 25

Agreement Types Listing: page 10 – 4

Fremont Corporation enforces revenue limits on purchase orders and change orders, since these types of agreements always cover specific work. The retainer letter and service agreement types are defined with a disabled Revenue Limit option, since the exact amount of these kinds of agreements is usually not known immediately. The terms default for all agreements is net payment within 30 days of receiving the invoice.

<i>Name</i>	<i>Description</i>	<i>Terms Default</i>	<i>Revenue Limit Default</i>
Purchase Order	Customer Purchase Order	30 Net	Enabled
Change Order	Change to a Purchase Order	30 Net	Enabled
Retainer Letter	Retainer Letter	30 Net	Disabled
Service Agreement	Service Agreement	30 Net	Disabled
Verbal Agreement	Non–Written Agreement	30 Net	Disabled

Bill Rate Schedules

A bill rate schedule maintains the rates and percentage markups over cost that you charge clients for your labor and non-labor expenditures. You can define bill rate schedules for your entire organization, or define separate bill rate schedules for individual business units.

You specify one of the following schedule types for each bill rate schedule you define:

- **Employee** – Use this type to define standard hourly bill rates or percentage markups by employee.
- **Job** – Use this type to define standard hourly bill rates by job title.
- **Non-Labor** – Use this type to define standard bill rates or percentage markups by non-labor expenditure type or non-labor resource. All expenditure types that you want to bill must be enabled. If you want to bill at cost, you must enter a 0% markup.

In a multi-organization environment, each operating unit must have its own bill rates. You can have different bill rates for the same resource in different operating units.

Defining Bill Rate Schedules

Prerequisites

- ☐ Define Organizations. See: Organizations: page 17 – 35
- ☐ Define Employees. See: Employees: page 17 – 51.
- ☐ Define Jobs. See: Jobs: page 17 – 47.
- ☐ Define Implementation Options. See: Implementation Options: page 17 – 57.
- ☐ Define Expenditure Types. See: Expenditure Types: page 17 – 87.
- ☐ Define Non-Labor Resources. See: Non-Labor Resources: page 17 – 91.

► **To define a bill rate schedule:**

1. In the Bill Rate Schedules window enter a schedule name and a description of the schedule.
2. Specify the organization that uses the schedule.

The organization you enter can be any organization from your organization hierarchy, regardless of whether the organization has the Expenditure Organization classification, and regardless of the start and end dates for the organization.

3. Specify a schedule type.
4. Depending on the schedule type, specify bill rates or markups for employees, job titles, or non-labor expenditure types.
5. Save your work.



Attention: Retroactive changes to bill rates and markups do not automatically create adjustments. You need to adjust and recalculate revenue for affected items manually.

Bill Rates on Invoices

If you set up an invoice format that specifies Bill Rate or Bill Rate Prorated on an invoice line, the bill rate is displayed in the project currency.

If the invoice is in a different currency from the project currency, the bill rate shown on the invoice line and the invoice amount shown in the invoice currency are not related.

See Also

Standard Bill Rate Schedules Listing: page 10 – 13

Invoice Formats: page 17 – 148

Fremont Corporation uses two bill rate schedules based on employees: a standard corporate bill rate schedule, and a special bill rate schedule for hazardous work used only in the Fremont Engineering's Environmental group.

The first employee bill rate schedule is the Standard schedule.

Organization	Fremont Corporation
Schedule	Standard
Description	Corporate standard bill rates
Schedule Type	Employee

Employee	Bill Rate
James Robinson	120 / hr
Donald Gray	140 / hr
Amy Marlin	130 / hr

The next employee bill rate schedule is Fremont Engineering's Hazardous Work schedule.

Organization	Environmental
Schedule	Hazardous Work
Description	Hazardous area bill rates
Schedule Type	Employee

Employee	Bill Rate
James Robinson	170 / hr
Donald Gray	190 / hr

Fremont Corporation uses a bill rate schedule based on job for its Construction group, which often bids using block rates for highly competitive jobs.

Organization	Fremont Construction
Schedule	Block Rates
Description	Construction block rate schedule
Schedule Type	Job

Job	Bill Rate
Senior Engineer	140 / hr
Staff Engineer	85 / hr
Principal	200 / hr
Staff Clerk	55 / hr
Staff Draftsman	75 / hr
Senior Consultant	150 / hr
Staff Consultant	95 / hr
Principal Consultant	200 / hr

Fremont Corporation uses a bill rate schedule based on expenditure type to bill clients for non-labor items. Fremont's Standard Non-Labor schedule assigns each expenditure type either a bill rate or a markup percentage.

Organization	Fremont Corporation
Schedule	Standard Non-Labor
Description	Corporate standard non-labor schedule
Schedule Type	Non-Labor

Expenditure Type	Resource	Bill Rate	Markup Percentage
Air Travel			5
Automobile Rental			5
Personal Auto Use		0.26 / mi	
Meals			5
Entertainment			0
Other Expense			5
Computer Services		10 / hr	
Computer Services	VAX 9000	40 / hr	
Computer Services	HQ1 Seq	30 / hr	
Computer Services	Sparc	15 / hr	
Vehicle		90 / day	
Vehicle	Van	70 / day	
Field Equipment		8 / hr	
Other Asset			20
Consulting			30
Construction			40
Other Invoice			20
Supplies			10

Invoice Rounding

When currencies are converted, it is necessary to round figures to the nearest currency unit. When an amount is converted from currency A to currency B (and rounded to the nearest unit), then converted back to currency A, a rounding difference can occur. This can occur during the following sequence of events:

1. You generate a project invoice (project currency)
2. Oracle Projects then converts the invoice to the invoice currency (if it is different from the project currency).
3. Receivables converts the invoice to the functional currency for posting to General Ledger.

The rounding that takes place during each conversion can produce different amounts for the same invoice in the same currency code.

Oracle Projects creates rounding entries to ensure that amounts in the same currency are in agreement after the conversions take place. Entries to offset the rounding entries are posted to the Invoice Rounding account.

Rounding Invoice Lines

Oracle Projects stores the revenue amount for each transaction. When you run the PRC: Interface Revenue to General Ledger process, Projects posts each revenue amount, in the functional currency, to the Oracle General Ledger UBR (unbilled receivables) account.

When Oracle Projects generates an invoice, the invoice generation process converts each invoice line amount from the project currency to the invoice currency if the two currencies are different. This conversion also occurs when you use the Recalculate option in the Invoice Review windows.

When you run the PRC: Interface Invoices to Receivables process, Oracle Projects debits an asset account (usually an Accounts Receivable account), and credits the UBR or UER (unearned revenue) account, based on the revenue and invoice balances of the project.

Rounding in the Interface Process

During the Interface Invoices to Receivables process, Oracle Projects determines if a rounding difference will occur later, during the conversion (in Receivables) from the invoice currency to the functional

currency. If there is a rounding difference, Projects performs the following additional steps:

- stores the rounding amounts on the each line.
- interfaces the rounding entry to Oracle Receivables along with the invoice line.

The Interface Invoices to Receivables process in Oracle Projects passes all the accounting entries to Receivables in both the transaction and functional currencies. The process determines if rounding has occurred and creates any additional rounding entries that are needed. The rounding entries are stored in Oracle Projects with the accounting amounts in the functional currency.

The additional rounding and the offsetting entry are created at the invoice line level, so that each invoice line is in balance. These rounding entries are passed to Receivables in the functional currency, to offset UBR & UER.

When Oracle Receivables posts invoice amounts to GL, it also posts the rounding entry to GL.

Because the Invoice Rounding account is required when interfacing invoices to Receivables (even if you are not using multiple currencies in invoicing), the Generate Draft Invoices process does not run unless the Invoice Rounding AutoAccounting function transaction is defined.

Verification in the Tieback Process

During the Tieback Invoices from Receivables process, Oracle Projects performs the following verification for each invoice line:

- compares the functional currency amount in Projects to the functional currency amount in Receivables.

If these amounts are different, this indicates that the applicable conversion rate was modified between the conversion in Projects and the conversion in Receivables. If this occurs, Projects reports a warning in the Successful Invoice Transfers report. This warning is displayed in the Invoice Exception region of the Invoice window.

If this warning occurs, you must credit the affected invoice in Projects by cancelling it.

Example of Invoice Rounding

Following is an example of Invoice Rounding for a multi-currency invoice.

In this example, the project has an unbilled receivables amount of 0.33. An invoice is then generated for the project.

Converting to the Invoice Currency

In this example, the project uses an invoice currency that is different from the project currency. When this is the case, Oracle Projects may have to adjust the converted amounts so that the total invoice amount matches the totals of the converted invoice line amounts. The adjustment is made in the last line of the invoice.

Table 17 – 8 shows the conversion of invoice line amounts from the project currency to the invoice currency. In this example, line 3 is adjusted by 0.01 so that the converted amount of the total invoice equals the total of the converted line amounts.

Line Number	Project Currency Amount	Invoice Currency Amount: conversion rate = 0.1
Line 1	0.22	0.02
Line 2	0.22	0.02
Line 3	0.22	0.02 + 0.01 (adjusted to reconcile the converted invoice total)
Total	0.66	0.07 (0.66 x 0.1)

Table 17 – 8 (Page 1 of 1)

Converting to the Functional Currency

Table 17 – 9 shows the conversion of invoice line amounts from the project currency to the invoice currency (in Oracle Projects) and from the invoice currency to the functional currency (in Receivables. Before the rounding entries are created, the invoice currency amounts (column 1) do not agree with the functional currency amounts (column 4):

Column 5 in Table 17 – 12 shows the rounding entries that Oracle Projects creates so that the functional currency amount posted to General Ledger agrees with the original project currency amount for each invoice line.

Invoice Line	Oracle Projects		Oracle Receivables		General Ledger	
	(1) Project Currency	(2) Invoice Currency: conversion rate = .01	(3) Invoice Currency	(4) Functional Currency	(5) Rounding Entries (Functional Currency)	(6) Balance (Functional Currency)
1	0.22	0.02	0.03	0.30	0.02	0.22
2	0.22	0.02	0.02	0.20	0.02	0.22
3	0.22	0.02 + 0.01	0.03	0.30	(0.08)	0.22
Total	0.66	0.07	0.07	0.70	(0.04)	0.66

Table 17 – 9 (Page 1 of 1)

Amounts Posted to General Ledger

When Oracle Projects creates rounding entries, the resulting General Ledger posting amounts (posted by Receivables) are shown in Table 17 – 10.

Invoice Accounting Line	Oracle Projects		Oracle Receivables	
	(1) Project Currency	(2) Invoice Currency: conversion rate = .01	(3) Invoice Currency	(4) Functional Currency
Line 1 UBR	0.22	0.02	0.02	0.20
Line 1 UBR			0.00	0.02
Line 1 Rounding			0.02	0.02
Line 2 UBR	0.11	0.01	0.01	0.10
Line 2 UER	0.11	0.01	0.01	0.10
Line 2 UBR			0.00	0.01
Line 2 UER			0.00	0.01
Line 2 Rounding			0.00	0.02
Line 3 UER	0.22	0.02 + 0.01	0.03	0.30
Line 3 Rounding			0.00	(0.08)
Total AR	0.66	0.07	0.07	0.70

Table 17 – 10 (Page 1 of 1)

The total amounts posted to each account would be:

Debit/Credit	Account	Invoice Currency	Functional Currency
Credit	UBR	0.03	0.33
Credit	UER	0.04	0.33
Debit	Receivables	0.07	0.70
Credit	Rounding	0.00	0.04

Table 17 – 11 (Page 1 of 1)

After these amounts are posted, both General Ledger and Oracle Projects have a UER balance of 0.33 and a UBR balance of 0.00 for this project.

Rounding for an Invoice Write Off

Oracle Projects calculates writeoffs in functional currency at the invoice line level, and converts each line to the invoice currency. If the original invoice is in a foreign currency, a rounding difference can occur.

If the write off amount is not 100% of the original invoice, Oracle Projects prorates the write off across all lines of the invoice. The write off invoice is interfaced to Receivables, where the AutoInvoice program converts the write off invoice to the functional currency for posting to General Ledger. Rounding differences can cause the Receivables amount to differ from the amount stored in Projects.

When you write off an invoice, Oracle Projects reverses the write off amount from the unbilled receivables account and adds it to a write off expense account when you interface the write off to Receivables.

If there is a rounding difference in an invoice write off, Oracle Projects creates rounding entries at the invoice line level. The rounding entries are interfaced to Receivables in both the transaction and functional currencies. These entries ensure that write off amounts in Oracle Projects, Receivables, and General Ledger are all in balance.

Example of Rounding in an Invoice Write Off

In this example, a write off is entered for an invoice with three lines, each in the amount of 0.44 (invoice currency). The invoice total is 1.32. The write off is for 50% of the invoice.

Table 17 – 12 shows the conversion of invoice line amounts for the write off. Before the rounding entries are created, the invoice currency amounts (column 1) do not agree with the functional currency amounts (column 4):

Invoice Line	Oracle Projects		Oracle Receivables		(5) Correction (Functional Currency)
	(1) Invoice Currency	(2) Invoice Currency: conversion rate = .01	(3) Invoice Currency	(4) Functional Currency	
Line 1	-0.22	-0.02	-0.02	-0.20	-0.02
Line 2	-0.22	-0.02	-0.02	-0.20	-0.02
Line 3	-0.22	-(0.02 + 0.01)	-0.03	-0.30	0.08
Total	-0.66	-0.07	-0.07	-0.70	-0.04

Table 17 – 12 (Page 1 of 1)

Column 5 in Table 17 – 12 shows the rounding entries that Oracle Projects creates so that the write off amount in Oracle Projects (in the project currency) agrees with the write off amount that Receivables calculates in the functional currency.

When Oracle Projects creates rounding entries, the resulting General Ledger posting amounts are shown in Table 17 – 13.

Debit/Credit	Line Number	Account	Invoice Currency	Functional Currency
Debit		Receivables	-0.07	-0.70
Credit	1	Write Off	-0.02	-0.20
Credit	1	Write Off	0	-0.02
Credit	1	Rounding	0	0.02
Credit	2	Write Off	-0.02	-0.20
Credit	2	Write Off	0	-0.02
Credit	2	Rounding	0	0.02
Credit	3	Write Off	-0.03	-0.30
Credit	3	Write Off	0	0.08
Credit	3	Rounding	0	-0.08

Table 17 – 13 (Page 1 of 1)

The total amounts posted to each account would be:

Debit/Credit	Account	Invoice Currency	Functional Currency
Debit	Receivables	-0.07	-0.70
Credit	Write Off	-0.07	-0.66
Credit	Rounding	0	-0.04

Table 17 – 14 (Page 1 of 1)

See Also

Invoice Formats

An invoice format determines how Oracle Projects creates an invoice line. You can define different formats for labor, non-labor, and retention invoice line items, and specify if you want to use the format for customer invoices, intercompany invoices, or both, how you want to summarize expenditure items, and the fields you want an invoice line to display. You can also include free-form text on an invoice line.

You can use customer invoice formats only for regular contract projects, and intercompany invoice formats only for invoices generated by intercompany billing projects. You can also share invoice formats between customer and intercompany invoices.

The grouping option specifies which expenditure items you want to summarize in an invoice line, and whether an invoice line item is labor, non-labor, or retention. Which grouping options you can select depends on the purpose of the invoice format.

The choice of fields you can display in an invoice line depends on the purpose of the invoice format and which grouping option you choose.

Defining Invoice Formats

► **To define an invoice format:**

1. In the Invoice Formats window, specify an invoice format name, format type, use, and a grouping option. You must also specify a From effective date.
2. Specify start and end positions for each field you want to include in the invoice line and any text that you want to display in the line.
See: Invoice Formats Window Reference: page 17 – 149
3. Save your work.

See Also

Invoice Printing: page 17 – 153

Invoice Formats Listing: page 10 – 8

Invoice Formats Window Reference

Invoice Formats (Vision Services: USD)

Name **Employee**

Format Type **Labor**

Effective From **01/JAN/1987**

Grouping **Employee**

Use For

- ☒ Customer Invoices
- ☐ Intercompany Invoices

— Invoice Format Details —

— Position —

Start	End	Field Name	Text	Right Justify
1	30	Employee Full Name		☐
40	50	Billing Title		☐
55	70	Total Hours		☒
72	77	Text	Hours	☐
				☐
				☐

Name. Enter a unique, descriptive name for this invoice format.

Format Type. Select a format type. The format type controls the invoice formats you see for labor, non-labor, and retention when you enter invoice formats using the Projects window.

After you upgrade to Release 11i, invoice formats created in earlier versions are designated as customer invoice formats.

Effective From. Enter the date range during which you want the invoice format to be effective.

Use For. Select an option to indicate if you want to use this invoice format for customer invoices, intercompany invoices, or both.

Grouping. Enter a grouping option for this invoice format. You can choose any grouping option available for this invoice format's type. A grouping option specifies what fields are the primary grouping of items into invoice lines.

Invoice Format Details. Enter the items you want to appear in the invoice line description:

Start and End. Specifies where you want this field to appear on the invoice line. Enter numbers between 1 and 240.

Field Name. Enter the name of the field that you want to appear on the invoice line. You can choose any invoice line field available for this invoice format's grouping option. However, if you are defining an invoice format that supports both customer and intercompany invoices, you can select only those fields that are shared by the two formats. Enter *Text* if you want to enter literal text in this position.

If you select *Bill Rate* or *Bill Rate Prorated*, the bill rate is displayed in the project currency. If the invoice is in a different currency from the project currency, the bill rate shown on the invoice line and the invoice amount shown in the invoice currency are not related.

Text. Enter the literal text that you want Oracle Projects to display as the value for this field. Oracle Projects skips this field unless you have entered *Text* in the previous field.

Right Justify Select if you want this field value to appear right justified between the specified start and end positions.

Oracle Projects enables this option for all numeric field values. Otherwise, Oracle Projects disables it.

About Invoice Formats for Intercompany Billing

If you are using intercompany billing, define an invoice format for summarizing cross-charge transactions. Depending on the requirements of the receiver operating units, you may need to define several invoice formats.

Formats defined for use by intercompany invoices cannot have a type of Retention.

Although one invoice format can support both customer and intercompany invoices, the list of values in the Field Name area will only include those values that are shared by the two formats.

See Also

Effective Dates: page 17 – 25

Fremont Corporation uses three labor invoice formats, two non-labor invoice formats, and one invoice format for retention.

Labor Invoice Formats:

Invoice Format

Name Job
Format Type Labor
Grouping Job

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	30	Job		Disabled
35	50	Total Hours		Enabled
52	57	Text	Hours	Disabled

Invoice Format

Name Employee
Format Type Labor
Grouping Employee

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	30	Employee Full Name		Disabled
40	50	Billing Title		Disabled
55	70	Total Hours		Enabled
72	77	Text	Hours	Disabled

Invoice Format

Name Job by Task
Format Type Labor
Grouping Top Task, Job

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	25	Top Task Name		Disabled
30	40	Job		Disabled
45	60	Total Hours		Enabled
62	67	Text	Hours	Disabled

Non-Labor Invoice Formats:**Invoice Format**

Name Expenditure Type

Format Type Non-Labor

Grouping Expenditure Type

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	30	Expenditure Type		Disabled
35	40	Total Amount		Enabled
42	50	Units		Disabled

Invoice Format

Name Expenditure Type by Task

Format Type Non-Labor

Grouping Top Task, Expenditure Type

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	30	Top Task Name		Disabled
35	50	Expenditure Type		Enabled
55	60	Non-Labor Resource		Disabled
62	67	Total Amount		Enabled
70	75	Units		Disabled

Retention Invoice Formats:

Invoice Format

Name Retention Percentage

Format Type Retention

Grouping Retention

Invoice Format Details

Start	End	Field Name	Text	Right Justify
1	4	Retention Percentage		Enabled
5	20	Text	% Retention	Disabled

Determining Your Invoice Printing Method

Oracle Projects provides you with powerful methods to create, adjust, review, approve, and print invoices.

You should determine your company's invoice printing strategy as part of your implementation process.

Considerations for your Company's Invoice Printing Strategy

Company requirements and constraints

You need to consider your company's invoice printing requirements and constraints as factors in formulating an appropriate invoice printing strategy for your company. These considerations may include:

- the groups in your organization that create and print invoices
- the printers and types of printers available for printing invoices
- the preformatted paper that your company uses to print invoices
- the frequency of creating and printing invoices in your organization
- the timing of invoice printing in the invoicing flow
- the different types of invoice layouts required by groups in your company or for certain types of projects
- the exact layout of the invoice, including the header and detail regions, when printed on paper
- the detail backup reports required for invoicing

Oracle Applications printing options

Oracle Projects interfaces invoices to Oracle Receivables for printing. You can print invoices from Oracle Projects or from Oracle Receivables.

Oracle Receivables provides an invoice printing program. You should examine the format of the Oracle Receivables invoices and the invoice printing program and determine if it meets your business requirements. If it does not, you can modify the standard report or create a new report.

You can print invoices from Oracle Projects. To do this, you need to write a custom invoice printing program. The benefits of printing invoices from Oracle Projects rather than Oracle Receivables is that you can print invoices once they are released in Oracle Projects without waiting until the invoices are interfaced to Oracle Receivables.

You may create a custom report which you use to download released invoices data from Oracle Projects into a spreadsheet, word processor, or any other tool to do flexible formatting.

If you print or download invoices from Oracle Projects, you should process only released invoices. With this precaution, you ensure that the invoice is not changed after it is printed. Invoices cannot be changed once they are released in Oracle Projects; the released invoices may be credited but not changed.



Suggestion: If you print or download invoices from Oracle Projects, you can record the date that the invoice is processed using the *Extracted Date* column in the draft invoices table. Oracle Projects does not currently use this column.

If some invoice lines have tax information, you must print the related invoices after they are interfaced to Oracle Receivables, because the Oracle Receivables AutoInvoice program calculates the tax amounts for these invoices. You can print the invoices from Oracle Receivables or from Oracle Projects. If you print from Oracle Projects, you need to report the tax amounts, rates, and accounting from the Oracle Receivables invoice tables.

If you want to print the remit to address on the invoice, you must print invoices after the invoices are interfaced to Oracle Receivables because Oracle Receivables determines the remit to address for invoices.

You can print invoices in the customer's language. For more information, see: Multilingual Support in Oracle Projects: page 15 – 59.

Invoice Formats as Part of Your Company's Invoice Printing Solution

All of these invoice printing strategies, which use different applications and different tools, rely on the invoice data that is created in Oracle Projects. You can control the format of the invoices using invoice formats. You should consider the definition of your invoice formats as part of your invoice printing solution.

The sections below describe what an invoice format is, how to define and use invoice formats, how the Generate Draft Invoice process uses invoice formats to select and group expenditure items on an invoice line. Some sample invoice formats and the resulting invoice lines are also illustrated.

What is an invoice format?

An invoice format determines how Oracle Projects creates an invoice line for a project that is billed based on time and materials.

Defining Invoice Formats

In defining invoice formats, consider the layout of the invoice, including the header and detail regions, when printed on paper, and the different types of invoice layouts required by groups in your company or for certain types of projects

You can define different formats for labor, non-labor, and retention invoice lines. You can define as many invoice formats as you need for different types of projects or organizations.

When you define contract project types during implementation, you specify default invoice formats for labor and non-labor invoice lines. These invoice formats provide default values to all projects that are classified by the project type. See: Invoice Formats: page 17 – 148 and Project Types: page 17 – 196.

Using Invoice Formats

When you enter a contract project, the invoice formats are defaulted from the project type that you selected for the project. You can override the default invoice formats in the Projects form using any of the formats defined during implementation.

When you generate invoices for the project, the Generate Draft Invoice process looks to the project to determine which format to use when grouping expenditure items on an invoice.

Processing Invoice Lines Using Invoice Formats

The Generate Draft Invoice process performs the following steps to create invoice lines:

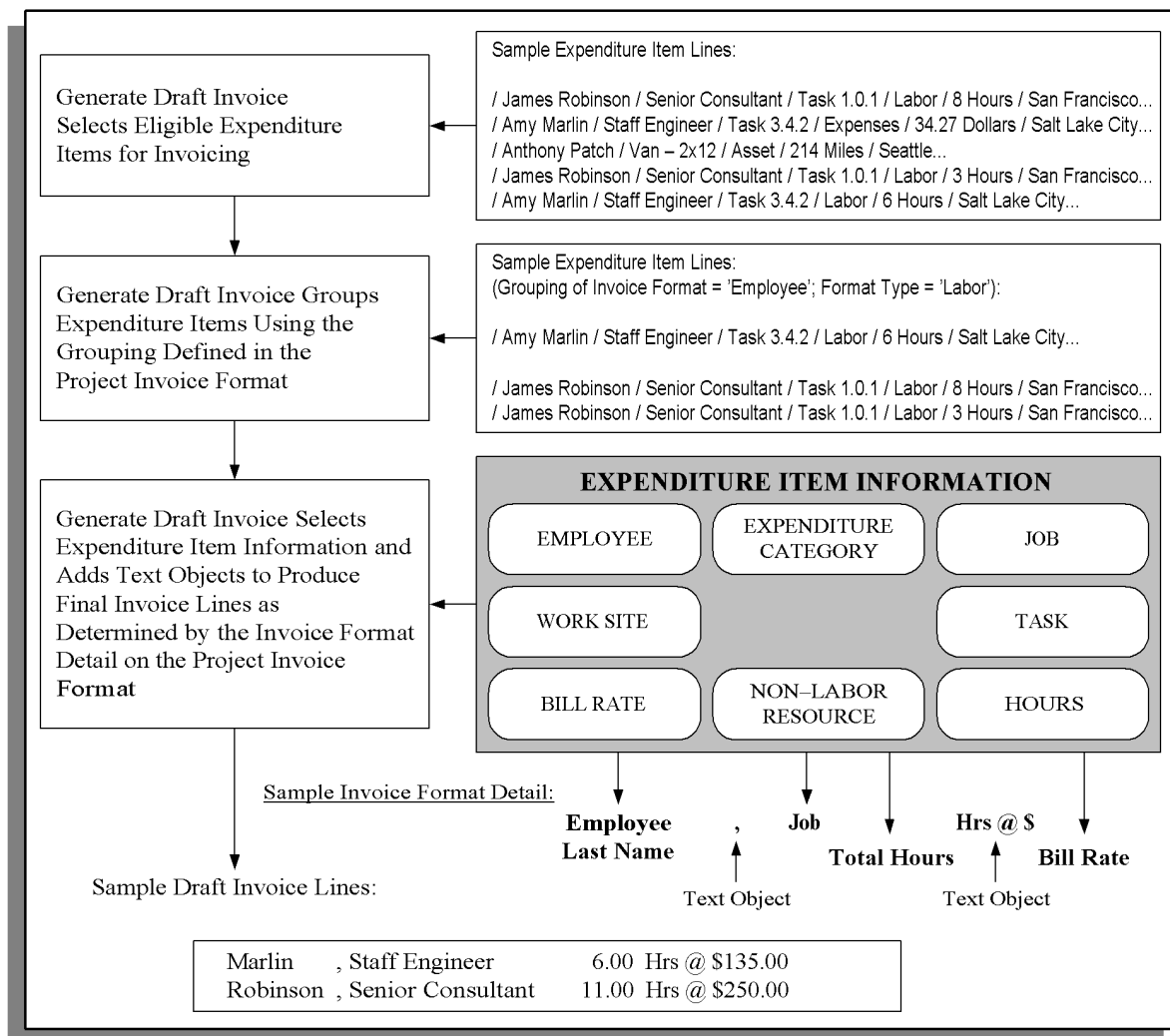
- Selects eligible expenditure items for invoicing
- Groups selected expenditure items according to the grouping defined for a project's invoice format
- Selects expenditure item information and adds text objects to produce final invoice lines as determined by the invoice format detail on the project invoice format

Figure 17 – 5 illustrates how you can create and format invoice lines.

Before the expenditure items are processed for billing, Generate Draft Invoice sets the job, job title, and employee billing title for all labor items for easier processing of invoice formats.

Creating and Formatting Invoice Lines

Figure 17 – 5 Creating and Formatting Invoice Lines



Invoice Formats – Sample Invoice Lines

The invoice formats of three sample projects are listed below along with the resulting invoice lines created from the expenditure items invoiced on the project. You can study these sample invoice formats and resulting invoice lines to help you determine how to define your company's invoice formats.

Figure 17 – 6

Project A

Labor Invoice Format

Grouping: Employee
Invoice Detail: Employee Last Name , Employee First Name Job Total Hours Hrs @ \$ Bill Rate

Non-Labor Invoice Format

Grouping: Expenditure Type
Invoice Detail: Expenditure Type Total Amount Units

Retention Invoice Format

Grouping: Retention
Invoice Detail: Retention Percentage % Retention

Sample Invoice Line Items:

		Item Description					Bill Amount
Labor Items		Carlisle , Jeff	Senior Consultant	45.0	Hrs @ \$	180.00	8100.00
		Connors , Zach	Staff Consultant	12.5	Hrs @ \$	100.00	1250.00
		Marlin , Amy	Principal Consultant	20.0	Hrs @ \$	200.00	4000.00
Non-Labor Item	—	Computer Services		54.00	Hours		540.00
Retention Item	—	10% Retention					-1389.00
Total Amount							12501.00

Figure 17 – 7

Project B

Labor Invoice Format

Grouping: Work Site, Job
Invoice Detail: Site: **Work Site City** Services Level: **Job** Hours: **Total Hours**

Non-Labor Invoice Format

Grouping: Work Site, Category, Type
Invoice Detail: Site: **Work Site City** **Expenditure Type** **Non-Labor Resource** **Total Amount** **Units**

Sample Invoice Line Items:

Item Description						Bill Amount
Labor Items	Site: Pittsburgh	Services Level:	Principal Draftsman	Hours:	16.5	3712.50
	Site: Pittsburgh	Services Level:	Staff Consultant	Hours:	10.5	1417.50
	Site: Salt Lake City	Services Level:	Staff Consultant	Hours:	8.5	1080.00
	Site: San Francisco	Services Level:	Senior Engineer	Hours:	22.0	3850.00
	Site: San Francisco	Services Level:	Staff Consultant	Hours:	13.0	1755.00
Non-Labor Items	Site: San Francisco	Services Level:	Principal Draftsman	Hours:	18.0	4050.00
	Site: Salt Lake City	Computer Services	PC	1.00	Hours	10.00
	Site: San Francisco	Computer Services	386 Laptop	2.00	Hours	30.00
	Site: San Francisco	Computer Services	PC	8.00	Hours	80.00
	Site: San Francisco	Computer Services	Sparc	6.50	Hours	325.00
Total Amount						16310.00

Figure 17 – 8

Project C

Labor Invoice Format

Grouping: Top Task, Employee
Invoice Detail: Top Task Number Top Task Name Employee Full Name Total Hours Hours at the hourly rate of \$ Bill Rate

Non-Labor Invoice Format

Grouping: Top Task, All
Invoice Detail: Top Task Number Top Task Name - - Expenses

Sample Invoice Line Items:

Item Description						Bill Amount
Labor Items	2.0	Analysis	Marlin, Ms. Amy T.	8.0	Hours at the hourly rate of \$ 135.00	1080.00
	2.0	Analysis	Robinson, Mr. James A.	10.5	Hours at the hourly rate of \$ 175.00	1837.50
	3.0	Design	Connors, Mr. Zach	16.5	Hours at the hourly rate of \$ 135.00	2160.00
	3.0	Design	Robinson, Mr. James A.	18.0	Hours at the hourly rate of \$ 175.00	3150.00
Non-Labor Items	2.0	Analysis	--	Expenses		325.00
	3.0	Design	--	Expenses		687.00
Total Amount						9239.50

Credit Types

Oracle Projects lets you award different kinds of revenue credit to your employees, such as sales credit, marketing credit, or quota credit. You can credit one or more employees for a specific project or task.

For example, if you want to credit an employee for bringing in a contract in a market sector for which you currently have few or no projects, you can define a credit type with a name such as Diversity Credit. After you define the project, you specify the employee as a credit receiver of Diversity Credit.

Defining Credit Types

► **To define a credit type:**

1. Navigate to the Credit Type Lookups window.
2. Enter the following information for the credit type.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Check the Enabled check box.
4. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Transferring Sales Credit to Oracle Receivables: page 18 – 62

Effective Dates: page 17 – 25

Credit Types Listing: page 10 – 6

Fremont Corporation awards Marketing Credit to a marketing staff member who generates a lead. Fremont also awards Quota Credit to a staff member who brings in a project.

<i>Name</i>	<i>Description</i>
Marketing Credit	Credit for generating leads
Quota Credit	Credit for acquiring a project

Event Types

Unlike labor costs or other billable expenses, a bonus your business receives for completing a project ahead of schedule is not attributable to any expenditure item.

In these cases, you use an event, rather than an expenditure item, to account for a bonus or other sum of money. An event is an entry assigned to a top task or project that generates revenue and/or billing activity, but is not directly related to any expenditure items.

You classify events by event type. When you define an event type, you assign it one of the predefined classifications. When you enter an event, its event type classification determines how the event affects revenue and billing for a particular project.

You can define as many event types as you need, but you cannot create additional classifications.

Defining Event Types

► **To define an event type:**

1. In the Event Types window, specify an event type, a description of the event, a revenue category, and a event type class.
2. Optionally, enter an output tax code for the event.
3. Save your work.

See Also

Event Types Listing: page 10 – 7

Automatic Events: page 19 – 69

Event Types Window Reference

Event Type. Enter a unique, descriptive name for this event type.

Revenue Category. Enter the revenue category that you want to associate with this event type.

Class. Enter a classification for this event type to determine how an event affects the revenue and billing for a particular project. Oracle Projects provides you with the following classifications:

- **Automatic.** An *Automatic* classification generates an automatic event for revenue or invoice amounts that may be positive or negative, depending on your implementation of billing extensions. See: *Billing Extensions*; page 19 – 67.
- **Deferred Revenue.** A *Deferred Revenue* classification generates an invoice for the amount of the event, and has no immediate effect on revenue.
- **Invoice Reduction.** An *Invoice Reduction* classification reduces the amount of an invoice without affecting revenue. For example, you can use an invoice reduction event to give a discount to a customer on a particular invoice.
- **Manual.** A *Manual* classification allows you to enter both a revenue amount and a bill amount. These two amounts can be different. Classify an event type as manual when you need to indicate different revenue and bill amounts.
- **Scheduled Payment.** A *Scheduled Payment* classification generates an invoice for the amount of the event. Oracle Projects marks expenditure items on the project being invoiced on a first-in first-out (FIFO) basis up to the amount of the event. When you use this classification, you can show details on an invoice even though the details are not used to calculate the bill amount.



Attention: The *Scheduled Payment* classification may be used only if the project uses Event based billing.

- **Write-On.** A *Write-On* classification causes revenue to accrue for the amount of the write-on. A *Write-On* also adds the write-on amount to the subsequent invoice. Revenue and invoice amounts are identical. For example, when your business earns a bonus for completing a project on time or under budget, you can define an event type with the *Write-On* classification to account for the bonus amount. A write-on causes revenue to accrue and generates an invoice to bill your client for the bonus amount.
- **Write-Off.** A *Write-Off* classification reduces revenue by the amount of the write-off.

Table 17 – 15 describes how each event type classification affects revenue and billing.

Classification	Revenue Effect	Billing Effect
Automatic	Depends on billing extension definition	Depends on billing extension definition
Deferred Revenue	No effect	Bill for amount of event
Invoice Reduction	No effect	Reduce a bill by amount of event
Manual	Accrue amount of event	Bill for amount of event
Scheduled Payment	No effect	Bill for amount of event, FIFO
Write-Off	Reduce by amount of event	No effect
Write-On	Accrue amount of event	Bill for amount of event

Table 17 – 15 Event Type Classifications (Page 1 of 1)

Output Tax Code. Optionally enter a default output tax code for invoice lines created for this event type. See: Setting Up Invoice Line Tax Codes: page 18 – 67.

This output tax code is used as a default tax code for invoice lines, depending on the tax default hierarchy you have set up. See: Tax Defaults: page 17 – 68.

Fremont Corporation uses all of the event type classifications to account for a number of situations. Fremont assumes most event revenue is from labor, and they want to track revenue from these event types as variations to labor revenue: Cost-to-Cost revenue, Bonus, and Write-Off.

<i>Event Name</i>	<i>Description</i>	<i>Classification</i>	<i>Revenue Category</i>
Bonus	Performance bonus	Write-On	Labor
Cost-to-Cost Revenue	Cost-to-cost revenue	Automatic	Labor
Fee	Fee earned	Automatic	Fee
Invoice Reduction	Invoice reduction	Invoice Reduction	Payment
Manual	Manual event	Manual	Fee
Milestone	Progress payment	Scheduled Payment	Payment

Payment	Scheduled payment	Scheduled Payment	Payment
Prebill	Advance payment	Deferred Revenue	Payment
Retainer	Retainer payment	Deferred Revenue	Payment
Surcharge	Surcharge	Automatic	Fee
Write-Off	Unearned revenue	Write-Off	Labor

Setting Up Cost-to-Cost Revenue

If your company uses the cost-to-cost billing method (denoted by a distribution rule of COST), you need to assign a default event type to the predefined billing extensions of *Cost-to-Cost Revenue* and *Cost-to-Cost Invoice*. Oracle Projects automatically calls and executes two predefined billing extensions for cost-to-cost revenue accrual and invoicing methods. Oracle Projects creates automatic events for the revenue and invoice amounts.

Assigning Event Types

Prerequisite

☐ Define Event Types. See: Event Types: page 17 – 162.

► To Assign Event Types For Cost-to-Cost Revenue:

1. In the Billing Extensions window, query the two billing extensions and assign an event type to the Default Event Type field.
2. Save your work.

Assigning Budget Types

You can change the cost and revenue budget types used as input for this extension. For example, you can use the forecast cost budget instead of the approved cost budgets. To make this change, change the cost budget type and revenue budget type on the predefined billing extension.

See Also

Effective Dates: page 17 – 25

Overview of Billing Extensions: page 19 – 68

Fremont Corporation assigns the automatic event type of *Cost-to-Cost Revenue* to the two predefined billing extensions, Cost-to-Cost Revenue and Cost-to-Cost Invoice.

Setup Requirements for Percent Complete Revenue and Invoicing

To generate revenue or draft invoices using percent complete, you must complete the following steps:

Billing Extension:

- You must create two event types with the event class *automatic* (one for revenue and one for invoicing), and associate each with one of the following predefined billing extensions, depending on whether you are generating revenue or invoices:
 - Percent Complete Revenue
 - Percent Complete Invoicing

Project Setup:

- The revenue distribution rule for the project must be one of the following rules:
 - Use the Event / Work rule if you want to accrue revenue based on percent complete.
 - Use the Work / Event or Cost / Event rule if you want to generate invoices based on percent complete.
 - Use the Event / Event rule if you want to both accrue revenue and generate invoices based on percent complete.
- You must enter percent complete at the funding level.
- The billing extensions are predefined to be assigned to the project (Project Specific attribute = Yes). If you want to assign an extension to the project type, you can make a copy of the predefined extension and then change the Project Specific attribute to No. You then assign the extension to the appropriate project types. You may also want to deactivate the predefined extensions by setting the end date.

Budgets

You complete the following steps for budget definitions:

- **Define budget types.** See: Define Budget Types: page 17 – 168.
- **Define budget change reasons.** See: Budget Change Reasons: page 17 – 173.
- **Define budget entry methods.** See: Budget Entry Methods: page 17 – 169.
- **Define resource lists.** See: Resources and Resource Lists: page 17 – 174.

Budget Types

Budget types identify the different kinds of budgets that you enter for your projects. Every project budget that you enter is classified by a budget type.

Each budget type is defined as either a cost budget type or a revenue budget type. For budgets using cost budget types, you can enter quantities, raw cost, and burdened costs. For budget using revenue budget types, you can enter quantities and revenue amounts.

You can use any budget type for project status tracking.

Oracle Projects predefines four budget types:

- Approved Cost Budget
- Approved Revenue Budget
- Forecast Cost Budget
- Forecast Revenue Budget

You can define additional budget types during implementation. For example, your company may want to create a separate budget from the *Approved Cost Budget* to track "what if" scenarios for future project alternatives.

Defining Budget Types

► To define a budget type;

1. Navigate to the Budget Types window.

2. Enter a unique name and description for the budget type and whether the budget is a cost or revenue budget type. This affects what amounts you can enter for the budget.
3. Enter effective dates for the budget type. See: Effective Dates: page 17 – 25.
4. Select Cost Budget or Revenue Budget as the Amount Type.
5. If you want to enable Workflow for the budget type, check the Use Workflow for Budget Status Change check box. See: Integrating with Oracle Workflow: page 13 – 88.
6. Save your work.

Fremont Corporation defines one additional budget type to track the forecast cost budget. Each project manager can enter the forecasted budget amount at completion using this budget type.

<i>Name</i>	<i>Amount Type</i>
Forecast at Completion	Cost Budget

Budget Entry Methods

Budget entry methods specify and control how you can enter a budget, including these options:

- what level in the work breakdown structure that you enter the budget
- what time period you use for budgeting, if any
- whether you enter budget amounts by categories (resources)
- what budget amounts you enter for the budget

Budget entry methods simplify budget entry by leading you through the budget entry windows to enter the data that you need.

Budget entry methods also provide a way to enforce consistent budget entry across similar projects, which facilitates cross-project reporting.

You select a budget entry method when you create a draft for a project. You also specify the default budget entry method for each project type.

Oracle Projects predefines three budget entry methods:

- By lowest tasks and Date Range, Categorized by Resources
- By lowest tasks and GL Period, Categorized by Resources

- By lowest tasks and PA Period, Categorized by Resources

You can define additional budget entry methods during implementation.

Defining Budget Entry Methods

► To define a budget entry method:

1. Navigate to the Budget Entry Methods window.
2. Enter the name of the budget entry method.
3. Select the entry level. The entry level can be project, top tasks, lowest tasks, or top and lowest tasks.
4. Select Categorized by Resources if you want the budget to be categorized.
5. Select the time phased type. The choices are Date Range, GL Period, PA Period, or None.
6. Select the enterable fields from the displayed list.
7. Save your work.

See Also

Effective Dates: page 17 – 25

Entering a Budget Draft: page 3 – 15

Fremont Corporation defines the following budget entry methods which address the various budgeting requirements of their projects.

The following two budget entry methods are used for projects that track budgets at a detail level using lowest level tasks or top tasks and PA periods. This is a company policy for all capital and contract projects.

<i>Name</i>	Lowest Task by PA Period
<i>Entry Level</i>	Lowest Task
<i>Categorized by Resource</i>	Yes
<i>Time Phased By</i>	PA Period

Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost
Revenue Enterable Fields	Revenue

Name	Top Task by PA Period

Entry Level	Top Task

Categorized by Resource	Yes

Time Phased By	PA Period

Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost

Revenue Enterable Fields	Revenue

Fremont defines the next budget entry method for use in indirect projects, which are allowed to have non-categorized amounts at the project level, but must be defined by GL period.

Name	Project by GL Period

Entry Level	Project

Categorized by Resource	Yes

Time Phased By	GL Period

Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost

Revenue Enterable Fields	None

Fremont defines the next two budget entry methods to record the forecast budget for all projects. The forecast budget can be entered at either the project or top task levels.

Name	Project at Completion

Entry Level	Project

Categorized by Resource	No

Time Phased By	None

Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost

Revenue Enterable Fields	Revenue

Name	Top Task at Completion
Entry Level	Top Task
Categorized by Resource	No
Time Phased By	None
Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost
Revenue Enterable Fields	Revenue

Fremont defines the next two budget entry methods for use with revenue budgets on contract projects that use cost plus contracts. These budget entry methods require entry of budget categories. For cost plus projects, project users need to define the fee component of the revenue budget for use in the fee calculation. Fremont defines two entry methods to accommodate both project level funding and top task funding.

These two budget entry methods may also be used for forecast budgets.

Name	Project Level by Category
Entry Level	Project
Categorized by Resource	Yes
Time Phased By	None
Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost
Revenue Enterable Fields	Revenue

Name	Top Task Level by Category
Entry Level	Top Task
Categorized by Resource	Yes
Time Phased By	None
Cost Enterable Fields	Quantity, Raw Cost, Burdened Cost
Revenue Enterable Fields	Revenue

Budget Change Reasons

You can define budget change reasons used to record why a budget changed. You can enter a budget change reason for a budget version as well as for individual budget lines.

Defining Budget Change Reasons

► **To define a budget change reason:**

1. Navigate to the Budget Change Reason Lookups window.
2. Enter the following information for the budget change reason:
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Check the Enabled check box.
4. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Effective Dates: page 17 – 25

Fremont Corporation defines the following budget change reasons.

<i>Name</i>	<i>Description</i>
Data Entry Error	Change due to data entry error
Estimating Error	Error in initial estimating
Scope Change	Change in project scope
Burden Multiplier Change	Change in burden multipliers

Resources and Resource Lists

To effectively manage your projects, you must track the activities and resources used on the project.

- Activities of a project are tasks, which are defined in a work breakdown structure, needed to track project work. See: Overview of Projects and Tasks: page 2 – 2
- Resources are labor, services, materials, equipment, and other amounts needed to track, complete, and account for project work

You use resources in Oracle Projects for budgeting and summarization of actuals and commitments for project status tracking.

You must set up resource lists for each business group. Resource lists are shared among operating units associated with the same business group. You can define a resource list by copying it from an existing resource list in the same business group.

Refer to the following sections to set up resources and resource lists:

- Overview of Resources and Resource Lists: page 17 – 174.
- Resource Lists Window Reference: page 17 – 176.
- Defining Resource Lists: page 17 – 178.
- Assigning Resource Lists: page 17 – 180.

See Also

Overview of Project Budgets: page 3 – 2

Project Status Inquiry: page 9 – 2

Defining Resource Lists: page 17 – 178

Case Study: Summary Amounts for Reporting: page 16 – 20

Overview of Resources and Resource Lists

This section provides an overview of how you define and use resources in Oracle Projects.

Resources

You use resources as flexible groupings by which you want to

- Budget
- Summarize actuals

You can define resources as employees, organizations, jobs, suppliers, expenditure categories, revenue categories, expenditure types, or event types.

Resource Lists

Your company has a unique way that it uses and tracks similar types of resources for similar kinds of project work. You can define resource lists to create a set of similar resources that you typically use on specific kinds of project work.

You can define a simple list of resources or a two-level hierarchy of resource groups and resources. You can group the resources by expenditure categories, revenue categories, or organizations. This two-level hierarchy allows you to budget and review actuals at a higher level using the resource group, and then drill down to the resources for more details. Oracle Projects summarizes actuals and commitments using the lowest level in the resource list and then rolls up the amounts to the resource group. You can budget using either the resource group or the resource.

You can define different types of resources below each resource group. For example, you may create resources of employees and jobs for the Labor expenditure category, resources of Suppliers under Outside Services, and expenditure types under all other expenditure categories. This type of flexibility allows you to define different types of resources below each resource group as required to best track the actuals under that resource group.

You can define lists of resources which classify the budget and actuals in different ways. Resource lists provide multiple roll up structures for summarizing actuals and commitments for cross project reporting. For example, you may define one resource list by employee and another by job for reviewing actuals using different roll ups.

See Also

Overview of Project Budgets: page 3 – 2

Resource Lists Window Reference

When you define a resource list, you specify the following values:

Resource List

Name Enter a unique name that identifies the resource list.

Group Resources By You can group resources by expenditure category, revenue category, or organization, or select None if you don't want to group resources for this resource list.

If you have selected to group resources, then you must enter the resource groups. If you have selected not to use grouping, then you skip the resource groups region and directly enter your resources.

Resource Groups

Group Select expenditure categories, revenue categories, or organizations as your resource groups. You should include all expenditure categories, revenue categories, or organizations in your resource list.

Alias Enter an alias name for the resource group which is displayed when you are budgeting and viewing project status.

Order Specify the order in which you want to view the resource groups in Project Status Inquiry. This allows you to order the categories with the highest visibility first. For example, if Labor is your primary cost, you may choose to display the Labor expenditure category as the first resource group, followed by Travel and Outside Services expenditure categories.

Enabled You can disable the resource group so that Oracle Projects does not allow entry of budgets using the resource group, nor use it when summarizing actuals by resources below that resource group.

Resources

Type Select the type of resource that you want to enter. You can choose from the following resources:

- Employee

- Job
- Organization
- Supplier
- Expenditure Type
- Event Type
- Expenditure Category
- Revenue Category

Resource Choose a resource from the list of values for the resource type.

Alias Enter an alias name for the resource which is displayed when you are budgeting and viewing project status.

Order Specify the order by which you want to view the resources in Project Status Inquiry. This allows you to order the resources with the highest visibility first. For example, you may want to display more senior jobs first so you order the resources of job in the following order: Principal Consultant, Senior Consultant, Staff Consultant.

Enabled You can disable the resources so that Oracle Projects does not allow entry of budgets using the resource, nor use it when summarizing actuals by resources.

Identifying Labor Resources

Oracle Projects automatically determines which resources and resource groups in a resource list are labor resources. Resources that are tracked as labor are as follows:

- Expenditure types with an expenditure type class of *Straight Time* or *Overtime*
- Expenditure categories and revenue categories that classify at least one expenditure type with an expenditure type class of *Straight Time* or *Overtime*
- All employees, jobs, and organizations defined below a resource group (expenditure category or revenue category) that is a labor resource group, or that are defined in a resource list without groups

The unit of measure of a labor resource is set to hours. Oracle Projects summarizes the quantities budgeted and incurred by labor resources as labor hours at the project, task, and resource levels. You can see all other

quantities other than labor hours at the resource level only; they are not summarized to the project and task levels.

Determining the UOM for Resources

As you enter the resources in a list, Oracle Projects automatically determines the unit of measure for the resources, as follows:

- Expenditure type resources use the unit of measure of the expenditure type
- Resources of employees, jobs, and organizations use a unit of measure of Hours
- Resources that are tracked as labor use a unit of measure of Hours

All other resources do not have a default unit of measure. You can only enter budgeted quantities for resources with a unit of measure.

See Also

Overview of Resources and Resource Lists: page 17 – 174

Defining Resource Lists

You can define a new resource list by either entering the list or copying a list from an existing one.

► To define a new resource list:

1. Navigate to the Resource Lists form.
2. Enter the resource list name and choose how you want to group the resource list.
3. If you choose to group the resource list, you enter the resource groups. Select the resource group, and override the alias and order if necessary. Then enter the resources for the group. See: Resource Lists Window Reference: page 17 – 176.

If you decide not to use grouping for the resource list, you enter the resources; you do not need to enter resource groups.

4. In the Resources region, select the resource type and resource, and override the alias and order, as necessary.
5. Save your work.
6. Continue to enter all the resource groups and /or resources for your resource list.

► **To create a new resource list by copying from an existing list:**

1. Navigate to the Resource Lists form.
2. Enter the resource list name and select how you want to group the resource list.
3. Choose Copy From and enter the resource list that you want to copy.
4. Choose OK. Oracle Projects automatically displays the new resource groups and resources.
5. Edit the resource list, as necessary.
6. Save your work.

► **To add a resource to an existing resource list:**

1. Navigate to the Resource Lists form.
2. Find the resource list that you want to change and add the resource.
3. Save your work.

► **To remove a resource from a resource list:**

1. Navigate to the Resource Lists form.
2. Find the resource list that you want to remove. You can delete a resource from a resource list only if you have yet not used the resource.

If you have already used the resource for budgeting or to create summary amounts, you cannot delete the resource. However, you can disable the resource for future use in budgeting and summary amounts by unchecking the Enabled box.

3. Save your work.

You should also consider if you need to update project summary amounts after changing a resource list that was previously used for summarization. See: Updating Project Summary Amounts: page 9 – 17.

See Also

Changing the Resource List after the Resource List is Used in Summarization: page 9 – 21

Overview of Resources and Resource Lists: page 17 – 174

Assigning Resource Lists to Projects

During project template and project setup, you assign resource lists to a project to indicate which resource lists you want to use for summarizing project actuals only information for project status tracking.

You can assign resource lists to project templates, which get copied to every project you create from the templates. This type of template setup facilitates cross-project reporting by using the same resource list across similar projects.

Oracle Projects requires that every project have at least one resource list assignment; this is to ensure that you can view actuals information in the Project Status windows and project status reports if no budget was created for the project. When you create a project template, Oracle Projects automatically assigns a resource list to the project template using the resource list specified on the project type for use in Status Reporting, and creates it as the default drilldown resource inquiry list to use in the Project Status windows. When you baseline a budget for the project, Oracle Projects automatically assigns the resource list used for the budget to the project, so that you can easily report actuals against budget using the resources that you used for budgeting.

You can assign additional resource lists by which you want to view summarized actuals in the Project Status Inquiry form or in your own custom reports. When you define additional resource list assignments, you must enter the following values:

Resource List You can select any active resource list.

Use Oracle Projects tracks if the resource list is used for a given budget type or for status reporting. You can only select *Status Reporting* when you enter a new resource list assignment.

Drilldown Default You use this check box to specify the default resource list to use when you drill down to view the resource status in the Project Status window. If necessary, you can change the resource list

that you use for reviewing resource status in the Project Status Inquiry form; the change is effective only for the current session.

► **To assign a resource list to a project or project template:**

1. Navigate to the Projects form.
2. Find the project or project template to which you want to assign the resource list.
3. In the Project window, select the Resource List Assignment option.
4. In the Resource List Assignments window, enter the resource list and specify if it is the drilldown default for Project Status Inquiry.
5. Save your work.

See Also

Project Summary Amounts: page 9 – 11

Project Status Inquiry: page 9 – 2

Overview of Resources and Resource Lists: page 17 – 174

Defining Resource Lists: page 17 – 178

Fremont Corporation uses many resource lists. The resource list shown below, *All by Organization*, has a two-level hierarchy. At the higher level (Resource Groups), resources are summarized into either labor, travel, outside services, material, in-house recoverables, or other expenses. The second level (Resources) defines groupings for a second layer of summarization.

Resource List: **All by Organization**

Group Resources by: **Expenditure Category**

Resource Groups:

Resource Group	Alias	Order
Labor	Labor	1
Travel	Travel	2
Outside Services	Outside Services	3

Material	Material	4
In-House Recoverables	In-House Recoverables	5
Other Expenses	Other Expenses	6

Resources:

<i>Resource Type</i>	<i>Resource</i>	<i>Alias</i>	<i>Order</i>
Organization	Risk Analysis	Risk Analysis	1
Organization	Data Systems	Data Systems	2
Organization	Mechanical	Mechanical	3
Organization	Midwest	Midwest	4
Organization	South	South	5
Organization	East	East	6
Organization	West	West	7
Organization	International	International	8
Organization	Environmental	Environmental	9
Organization	Structural	Structural	10
Organization	Human Resources	Human Resources	11
Organization	Finance	Finance	12
Organization	Information Services	Information Services	13

Project Definition

Project Statuses

Project Statuses (Vision Services: USD)

General Workflow

Project Status	Project System Status	Description	— Effective Dates —		Starting Status	
			From	To		
Active	Approved	Active status	01/JAN/1999		☐	
Approved	Approved	Approved	16/AUG/1997		☐	
Closed	Closed	Closed	16/AUG/1997		☐	
Pending Close	Pending Close	Pending Close	16/AUG/1997		☐	
Rejected	Unapproved	Rejected	16/AUG/1997		☐	
Submitted	Submitted	Submitted	16/AUG/1997		☒	

Status Controls

Action	Allow	Default
Create New Transactions	☒	☒
Adjust Transactions	☒	☒
Generate Revenue	☒	☒
Generate Invoice	☒	☒
Capitalize Assets	☒	☒
Include in Status Reports	☒	☒

The project status can be used to control what processing is allowed at various stages of a project. Every project must have a valid status.

Oracle Projects predefines the following project statuses:

- Unapproved
- Submitted
- Approved
- Rejected
- Pending Close
- Closed

If your system was upgraded from Release 10 to the current release, you will also see the predefined project status *Active*, which was defined in prior releases of Oracle Projects.

Defining project statuses

► To define a project status:

1. In the Project Statuses window, enter a unique project status name.
2. Select a System Status to map to the project status. Every project status must map to one of the five predefined system statuses. The predefined System Statuses are:
 - Unapproved
 - Submitted
 - Approved
 - Pending Close
 - Closed
3. Enter a description for the project status.
4. Enter Effective Dates.
5. If you want this project status to be eligible for use as the starting status for a new project, check the Starting Status check box. See: Project Status of a New Project: page 2 – 34.
6. If you want to initiate workflow when a project is updated to this status, select Workflow from the tab control. Check the Enable Workflow check box and enter the following fields:
 - **Item Type.** Enter the name of the Workflow Item Type to be used for this status.
 - **Process.** Enter the name of the Workflow Process to submit for this status.
 - **Success Status.** Enter the project status to assign to a project upon successful completion of project workflow.
 - **Failure Status.** Enter the project status to assign to a project if project workflow fails. (This can be the same as the current project status.)

For more information about project workflow, see: Project Workflow: page 13 – 89.

7. The Status Controls region contains a list of Actions that are allowed or restricted for each project status.

When you create a new project status, the System Status you have selected for the project status determines which Actions are allowed for a project to which the project status is assigned. If you want to change the default permissions, you can optionally check or uncheck the Allow check box. The Default check box is display-only, and contains the original setting of the Allow check box.

For some System Statuses, there are Allow check boxes that cannot be changed. For example, if a project status maps to the Closed System Status, the project status cannot allow Create New Transactions.

Following are the project status Actions:

- **Create New Transactions.** New transactions include transfers, but not splits.
- **Adjust Transactions**
- **Generate Revenue**
- **Generate Invoices**
- **Capitalize Assets**
- **Include in Status Reporting.** Include in Project Status Inquiry and management reports that show summary project information.

8. Save your work.

See Also

Integrating with Oracle Workflow: page 13 – 88

Effective Dates: page 17 – 25

Project Statuses Listing: page 10 – 12

Transaction Control Extensions: page 19 – 22

Project Classifications (Class Categories and Class Codes)

You define project classifications to group your projects according to categories you define. A project classification includes a class category and a class code. The category is a broad subject within which you can classify projects. The code is a specific value of the category.

For example, if you want to know the market sector to which a project belongs, you can define a class category with a name such as Market Sector. You can define class codes for this category such as Waste Cleanup, Risk Analysis, and Environmental Engineering.

You can create a report that displays projects classified by a particular category. For example, if you classify your projects by market sector, you can create reports showing which market sectors generate the most revenue. Or, your marketing department could run a report to determine which markets need to be pursued more aggressively.

Oracle Projects does not predefine any class categories or class codes.

Defining class categories and class codes

► **To define class categories and class codes:**

1. Navigate to the Class Categories and Codes window.
2. Enter a unique Class Category name and a Description.
3. Specify whether the class category is mandatory for every project you define.

Enable if all projects must have a code assigned to this class category. Do not enable if this class category is optional. If you do not enable this option, you cannot use this class category in your AutoAccounting rules.

4. Specify whether you want to use the class category in your AutoAccounting rules.



Suggestion: For each project, you can use only one code with one class category for use with AutoAccounting rules. If an AutoAccounting category already exists within a particular date range, assign an end date to the existing AutoAccounting category and then create a new one.

5. Specify whether you want to allow entry of only one class code with this class category for a project.

Defining multiple class codes for one category for a project may affect reporting by class category; defining multiple class codes may cause your numbers to be included more than once.

6. Enter the Name, Description, and Effective Dates for each class code.
7. Save your work.

See Also

Effective Dates: page 17 – 25

Fremont Corporation classifies each project by market sector and funding source. Since Fremont Corporation tries to diversify its contracts, tracking this information is very important to corporate management; therefore, both categories are mandatory for any projects Fremont defines.

The first project class category Fremont defines is Market Sector. The codes for this category indicate the market sector to which a particular project belongs.

Class Category

<i>Name</i>	Market Sector
<i>Description</i>	Market sector in which project work takes place
<i>Mandatory</i>	Yes
<i>AutoAccounting</i>	No
<i>Pick One Code Only</i>	Yes

Class Codes

<i>Name</i>	<i>Description</i>
Structural	Structural design and engineering
Mechanical	Mechanical design and engineering
Electrical	Electrical design and engineering
Impact	Environmental impact studies
Environmental	Environmental design and planning
Data	Data services

Risk	Risk analysis services
Utilities	Utility / Power Plant construction
Waste	Disposal / Recycle facility construction

The second project class category Fremont Corporation uses is Funding Source. The class codes indicate whether the project is being funded privately or publicly. For publicly funded projects, the class code also indicates at what level the project is funded: Federal, State or Local, or Foreign. Fremont Corporation uses these class codes to produce a report detailing the ratio of public versus private projects.

Class Category

<i>Name</i>	Funding Source
<i>Description</i>	Source of funding for project
<i>Mandatory</i>	Yes
<i>AutoAccounting</i>	No
<i>Pick One Code Only</i>	Yes

Class Codes

<i>Name</i>	<i>Description</i>
Federal	Funded by a federal agency
State or Local	Funded by state or local government
Foreign	Funded by a foreign government
Private	Funded by the private sector, foreign or domestic

Service Types

Service types are broad categories of work that employees may perform during the life of a project. When you define a work breakdown structure for a project, you assign a service type to each project task you define to indicate what type of work the task involves.

You can use service types to create more informative or detailed reporting across tasks. You can also use service types in your AutoAccounting setup.

Defining service types

► **To define a service type:**

1. Navigate to the Service Type Lookups window.
2. Enter the following information for the service type.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Check the Enabled check box.
4. Save your work.

For detailed information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Effective Dates: page 17 – 25

Service Types Listing: page 10 – 13

Fremont Corporation relies upon service types in its AutoAccounting rules to process indirect labor items. Fremont has an account for each type of indirect labor cost, such as vacation hours and sick hours.

Fremont's implementation team defines a service type for each kind of indirect labor. Fremont's implementation team maps each service type to the appropriate expense account when it implements AutoAccounting.

Fremont's implementation team also defines several service types for direct work; these service types are used only for reporting purposes.

<i>Name</i>	<i>Description</i>
Field Work	Work in the field
Lab Work	Work in a corporate laboratory
Documentation	Preparing documentation
R & D	Indirect Research and Development
Administration	Administrative Work
Marketing	Indirect Marketing
B & P	Bid & Proposal work
Vacation	Vacation hours
Sick	Sick hours
Holiday	Holiday hours
Overtime	Overtime hours

Project Role Types

You define project role types to control which employees can view and update project information in Oracle Projects. An employee with a project role on a project can enter and change data for the project.

You use the Key Members window to assign project roles to employees. You do not have to assign project roles to all employees who perform work on a project — only the employees who need to maintain project data and / or view project expenditures.

A project role type also determines whether holders of that role can query labor costs. For example, suppose you define a project role type with a name such as *Project Consultant*. You specify whether this project role permits access to a project's labor costs. If you decide not to permit access to project labor cost data, employees assigned the project role of Project Consultant cannot view the labor costs for any projects to which they are assigned when they have that project role type.

Oracle Projects predefines the following role type:

- Project Manager

Only one employee may be assigned the Project Manager role at any time during the life of a project. Oracle Projects predefines the Project Manager with access to view labor costs; by default, any employee assigned the *Project Manager* role can query labor costs.

For detailed information about labor cost security in Oracle Projects, please see: Project and Labor Cost Security in Oracle Projects: page 15 – 13.

Defining project role types

1. In the Project Role Types window, enter a a unique name and description for this project role type.

If holders of this project role type can view a project's labor costs, enable the View Labor Cost option.

2. Save your work.

See Also

Effective Dates: page 17 – 25

Key Members: page 2 – 46

Project Role Types Listing: page 10 – 12

Fremont Corporation distinguishes between two types of project leaders: managers and coordinators. Project Managers are authorized to see labor costs, but Project Coordinators are not.

Fremont Corporation uses the following role types, and allows holders of those roles to see the cost of labor as follows:

<i>Name</i>	<i>Description</i>	<i>View Labor Cost</i>
Project Manager	Project Manager	Enabled
Project Coordinator	Project Coordinator	Disabled

Project Customer Relationships and Contact Types

Project customer relationships help you manage projects that involve multiple clients by specifying the various relationships your customers can have with a project. A customer has exactly one relationship with a given project; one or more customers can have the same relationship with a project.

For example, most projects have a single customer who is the main client on the project; you can define a relationship with a name such as *Primary* to indicate the major client on a project.

Contact types specify how the contacts of a particular customer are involved with a project. You can use project contacts to direct certain pieces of correspondence, such as invoices, to the appropriate customer contact.

For example, if your client identifies a specific employee as the technical resource for questions about that client's project, you can classify that employee using a contact type. First, you create a contact type with a name such as *Technical*. Later, when you define a project or modify your definition of that project, you assign the Technical contact type to the appropriate customer contact.

Defining Project Customer Relationships

► **To define project customer relationships:**

1. Navigate to the Project Customer Relationship Lookups window.
2. Enter the following information for the customer relationship.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates
3. Check the Enabled check box.
4. Save your work.

For information on defining and updating lookups in Oracle Projects, see: Oracle Projects Lookups: page 17 – 76.

See Also

Effective Dates: page 17 – 25

Project Contact Types Listing: page 10 – 12

Project Customer Relationships Listing: page 10 – 12

Fremont Corporation distinguishes between the major client of a project and collateral clients who have less involvement than the major client. Fremont also distinguishes between major and collateral clients who help pay for a project, or who do not pay at all.

<i>Name</i>	<i>Description</i>
Primary	Client is contributing majority of payment
Secondary	Client is contributing partial payment
Non-Paying	Client is involved with project, but is contributing no payment

Defining contact types

You define a contact type by specifying a contact type name and description

Oracle Projects predefines two contact types:

- Billing
- Shipping

Oracle Projects addresses invoices to the billing contact you specify when you define a project. All contract projects require a billing contact.

► To define contact types:

1. Navigate to the Project Contact Type Lookups window.
2. Enter the following information for the contact type.
 - code
 - meaning
 - description
 - tag value (optional — tag value is not used by Oracle Projects)
 - effective dates

3. Check the Enabled check box.
4. Save your work.

See Also

Effective Dates: page 17 – 25

Fremont Corporation's client management policies call for directing all correspondence to the appropriate customer contact in a client's organization.

To implement these policies, Fremont Corporation uses the predefined contact types and defines the following ones:

<i>Name</i>	<i>Description</i>
Technical	Acts as technical resource for the project
Contract	Administers the contract

Project Types

Project Types (**US** Vision Services US: USD)

NameFixed Price

ClassContract

Service TypeConsulting

DescriptionUse to track Project cost and revenue for Fixed Price Contracts

Effective01/01/1987

Intercompany Billing

Costing Information

Budget Control

Billing Information

Billing Assignments

Distribution Rules

☒Burdened

ScheduleLabor Burden Only

☒Allow Schedule Override

Burden Cost Display and Accounting

☒Burden cost on same expenditure item

☐Account for Burden Cost components

Burden Cost Project

Burden Cost Task

☐Burden Cost as separate expenditure item

The project type controls how Oracle Projects creates and processes projects, and is a primary classification for the projects your business manages. You must set up at least one project type to create projects in Oracle Projects.

For information about using the different parts of the Project Types window, refer to the following table:

Project Type Class	Tab	Information to set up
[all]	[General information]: page 17 – 197 Costing: page 17 – 198 Budget: page 17 – 198 Project Status, Workflow: page 17 – 199	Name, class of project (indirect, capital, or contract), and service type Burden cost accounting schedule, if any Budget entry and resource for status reporting Starting status for new projects and workflows to be used for status changes

17 – 196 Oracle Projects User Guide

Project Type Class	Tab	Information to set up
Capital*	Capitalization Information: page 17 – 200	Cost type, controls, and grouping method
Contract*	Billing Information: page 17 – 201 Billing Assignments: page 17 – 202 Distribution Rules: page 17 – 202	Defaults for billing cycle, schedules, and invoice formats Billing extension assignments Distribution rules for revenue and billing

*As selected in the Class field; also known as Project Type Class

Table 17 – 16 Project Types window (Page 2 of 2)

Project Types in a Multi–Organization Environment

In a multi–organization environment, you must set up project types for each operating unit. It is possible to have the same project type names in multiple operating units. However, each project type has its own attributes to control project processing by operating unit.

See Also

Project Type: page 2 – 8

Defining Project Types: page 17 – 203

Project Types for Fremont Corporation (Example Setup): page 17 – 204

Project Types Window Reference

(All project types) General Information

Name. The name of the project type.

Class. The project type class (Indirect, Capital, or Contract) for the project type. See: Project Type: page 2 – 8.

Note: You can define contract projects only if you have installed Oracle Project Billing. See: Billing: page 8 – 2.

Service Type. The default service type to use when creating new top tasks.

Effective. The date range within which the project is valid. See: Effective Dates: page 17 – 25

(All project types) **Costing**

Burdened. Indicates whether to burden raw costs charged to projects using this project type for internal costing purposes.

Schedule. The burden schedule to use as the default cost burden schedule. You enter a schedule only if the project type is burdened. If the project type is burdened, this field is required.

Allow Schedule Override. Indicates whether you can override the default cost burden schedule when entering and maintaining projects and tasks. Deselect the check box if you want to ensure that all projects of a project type use the same schedule for internal costing. Check the box to allow updates to the cost burden schedule on the projects and tasks. You can enter this only if you enabled the Burdened check box.

Burdening Options

If you select the Burdened check box, you see additional fields:

Burden Cost on same expenditure item. Select if you want to store burden amount in the same expenditure item, and then select a project and (optional) task that will account for the expenditure item.

Burden Cost as separate expenditure item Select this option to account for burden amounts in a separate project and task. (This option works best if used with indirect projects. With other project types, the system may post duplicate amounts.)

See Also

Overview of Costing: page 5 – 2

(All project types) **Budget Control**

Allow Cost Budget Entry. Indicates if you allow entry of cost budget types.

- **Entry Method.** The default budget entry method for cost budgets.
- **Resource List.** The default resource list for cost budgets.

Allow Revenue Budget Entry. Indicates if you allow entry of revenue budget types. For contract projects, you must enter a revenue budget for a contract project before it can accrue revenue and be billed. For indirect and capital projects, you can choose to not allow entry of revenue budgets.

- **Entry Method.** The default budget entry method for revenue budgets.
- **Resource List.** The default resource list for revenue budgets.

Resource List for Status Reporting. The default resource list to use for summarizing project amounts for status reporting. You must enter a value to ensure that you can view information in the Project Status windows and project status reports, even when you have not baselined a budget for the project. You typically select the same resource list as one of the resource lists you use for budgeting. When you create a new project template from scratch, Oracle Projects automatically creates a resource list assignment using this resource list.

See Also

Defining Budget Entry Methods: page 17 – 169

Defining Resource Lists: page 17 – 178

(All project types) **Project Status, Workflow**

Starting Project Status. Enter a starting project status for each project type you create. The starting project status used as the default when:

- A project template is created.
- A project is created by copying an existing project or project template. The project status of the new project is the same as the current status of the existing project or project template, *unless* that starting project status is invalid for the project type. In that case, the starting project status set in the Starting Project Status field for the project type.

Use Workflow for Project Status changes. Select to initiate Workflow for all workflow–eligible project statuses in projects with this project type. See: Project Statuses: page 17 – 183.

Use Workflow for Budget Status changes. Select to initiate Workflow for all eligible project budgets in projects with this project type. See: Budget Types: page 17 – 168.

See Also

Integrating with Oracle Workflow: page 13 – 88

(Capital project types) Capitalization Information

CIP Cost Type. For the project type, specifies whether to capitalize CIP costs at their burdened or raw cost amount.

Require Complete Asset Definition. Specifies whether an asset definition in Oracle Projects must be complete before you can send capitalized costs to Oracle Assets. If you select this option, you do not need to enter information for the imported asset line in the Prepare Mass Additions window in Oracle Assets. The Asset Interface process places asset lines with complete definitions directly into the Post queue in Oracle Assets.

Override Asset Assignment. This field interacts with the assignment status of the asset to either call or disregard the Asset Assignment client extension:

Is Override Asset Assignment selected?	Asset assignment of asset lines is...	Does the system call the client extension?
No	Unassigned	Yes
No	Assigned	No
Yes	Unassigned	Yes
Yes	Assigned	Yes

Table 17 – 17 Override Asset Assignment field (Page 1 of 1)

You can set up the Asset Assignment extension to assign any unassigned asset lines that result from the Generate Asset Lines process, or (as described above) to override the current asset assignment for specified lines. See: Asset Assignment Extension: page 19 – 144.

CIP Grouping Method. Specifies how you want to summarize the asset lines you generate. You can summarize by:

- Expenditure Category
- Expenditure Category, Nonlabor Resource
- Expenditure Type
- Expenditure Type, Nonlabor Resource
- All (highest level of summarization)

Group Supplier Invoices. Select to consolidate the expenditure items on a supplier invoice into one asset line according to the method specified in the CIP Grouping Method field. Deselect to specify how you want to interface the lines to Oracle Assets as separate mass addition lines:

- **As New Mass Additions.** Interfaces each expenditure item on a supplier invoice line to Oracle Assets as a separate Mass Addition line. Each line will have a status of NEW.
- **As Merged Mass Additions.** Interfaces each supplier invoice line to Oracle Assets as a separate Mass Addition line with a status of MERGED.

No matter which option you choose, you can use the Prepare Mass Additions window in Oracle Assets later to split, merge, or unmerge the lines manually.

See Also

About Capital Projects: page 7 – 2

Oracle Assets User's Guide

(Contract project types) **Billing Information**

Funding Level. The level at which you allow funding for contract projects of this project type. You can choose from the values of Project, Top Task, or Both.

Labor and Non-Labor. Select **Bill Rate Schedule** or **Burden Schedule** for both labor and non-labor billing.

- **Organization.** Select the default organization that owns the labor or non-labor bill rate schedule.
- **Schedule.** The default burden schedule for invoicing.

Invoice Formats. Select the default labor and non-labor invoice formats.

Billing Cycle. The default billing cycle for projects of this type. See: Billing Cycles: page 17 – 130.

First Bill Offset Days. The default number of days that elapse between the project start date and the date of the project’s first invoice.

(Contract project types) **Billing Assignments**

Name. Select billing extensions to be used in revenue accrual or invoicing, or both.

Amount and Percentage. Enter an amount or percentage to used in the billing extension calculation.

Active. Deselect to disable the billing assignment.

See Also

Billing Extensions: page 19 – 67

(Contract project types) **Distribution Rules**

Name. You select the distribution rules that can be allowed for any project of this project type. You can choose any predefined distribution rule:

Cost/Cost	Accrue revenue and bill using the ratio of actual cost to budgeted cost (percent spent).
Cost/Event	Accrue revenue using the ratio of actual cost to budgeted cost (percent spent), bill based on events.
Cost/Work	Accrue revenue using the ratio of actual cost to budgeted cost (percent spent), bill as work occurs.
Event/Event	Accrue revenue and bill based on events.
Event/Work	Accrue revenue based on events, bill as work occurs.

Work/Event	Accrue revenue as work occurs, bill based on events.
Work/Work	Accrue revenue and bill as work occurs.
Default. Check the box if you want to use the distribution rule as the default value for projects of this project type. You can only have one default distribution rule for each project type.	

See Also

Setting Up Contract Projects: page 8 – 4

Defining Project Types

Prerequisites

- ☐ Define Implementation Options. See: Implementation Options: page 17 – 57.
- ☐ Define service types. See: Service Types: page 17 – 189.
- ☐ Define burden schedules (if you are using burdening). See: Burden Schedules: page 17 – 117.
- ☐ Define bill rate schedules (for contract project types). See: Bill Rate Schedules: page 17 – 137.
- ☐ Define invoice formats. See: Invoice Formats: page 17 – 148.
- ☐ Define budget entry methods. See: Budget Entry Methods: page 17 – 169.
- ☐ Define resource lists. See: Resource Lists: page 17 – 174.

► To define a new project type:

1. Open the Project Types window.
2. Enter the project type information, including any options appropriate for the project type class. See: Project Types Window Reference: page 17 – 197.
3. Save your work.

See Also

Project Types: page 17 – 196

Project Types for Fremont Corporation (Example Setup)

Fremont Corporation uses Oracle Projects to manage indirect, capital, and contract projects.

Indirect Project Types

Fremont Corporation’s implementation team defines these indirect project types:

- Overhead
- Bid & Proposal
- R&D

Fremont Corporation’s implementation team defines a project type for overhead costs. Fremont uses overhead projects to record overhead costs that may or may not be associated with a particular project. For example, Fremont records its word processing and editorial costs in an overhead project. This project type is not burdened.

<i>Name</i>	Overhead
<i>Class</i>	Indirect
<i>Service Type</i>	Administration
<i>Description</i>	Project used to store overhead charges for the organization that manages the project
<i><u>Budget Control</u></i>	
<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Project by GL Period
<i>(Cost) Resource List</i>	Labor by Job, Non-Labor by Expenditure Type

<i>Allow Revenue Budget Entry</i>	No
<i>Resource List for Status Reporting</i>	Labor by Job, Non–Labor by Expenditure Type

Fremont Corporation’s implementation team also defines a project type for Bid and Proposal work. This is an indirect project type because costs incurred are not billed back to the client. Fremont uses Bid and Proposal projects to record the costs associated with bidding for a prospective contract. This project type is not burdened.

<i>Name</i>	Bid & Proposal
<i>Class</i>	Indirect
<i>Service Type</i>	B & P
<i>Description</i>	Collect bid and proposal costs
<u>Budget Control</u>	
<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Project by GL Period
<i>(Cost) Resource List</i>	Labor by Job, Non–Labor by Expenditure Type
<i>Allow Revenue Budget Entry</i>	No
<i>Resource List for Status Reporting</i>	Labor by Job, Non–Labor by Expenditure Type

Fremont Corporation also defines a new project type for research and development projects.

<i>Name</i>	R & D
<i>Class</i>	Indirect
<i>Service Type</i>	R & D
<i>Description</i>	Projects for research and development

Costing Information

<i>Burdened</i>	Yes
<i>Schedule</i>	Labor Burden Only
<i>Allow Schedule Override</i>	Yes

Budget Control

<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Project by GL Period
<i>(Cost) Resource List</i>	Labor by Job, Non-Labor by Expenditure Type
<i>Allow Revenue Budget Entry</i>	No
<i>Resource List for Status Reporting</i>	Labor by Job, Non-Labor by Expenditure Type

Capital Project Types

Fremont Corporation's implementation team defines these capital project types:

- Product Development
- Infrastructure

Fremont summarizes all CIP costs by expenditure category for capitalization in Oracle Assets, and requires that all asset information be specified in Oracle Projects before interfacing costs to Oracle Assets.

Fremont Corporation's implementation team defines a project type for product development in which they capitalize the burdened costs for the project work.

<i>Name</i>	Product Development
<i>Class</i>	Capital
<i>Service Type</i>	Lab Work
<i>Description</i>	Product development projects for which costs are burdened, and later capitalized

Costing Information

<i>Schedule</i>	Internal Costing
<i>Allow Override</i>	Yes

Budget Control

<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Top Task by PA Period
<i>(Cost) Resource List</i>	Labor by Job, Non-Labor by Expenditure Type
<i>Allow Revenue Budget Entry</i>	No
<i>Resource List for Status Reporting</i>	Labor by Job, Non-Labor by Expenditure Type

Capitalization Information

<i>CIP Cost Type</i>	Burdened
<i>Require Complete Asset Definition</i>	Yes
<i>Override Asset Assignment</i>	No
<i>CIP Grouping Method</i>	Expenditure Category
<i>Group Supplier Invoices</i>	Yes

Fremont Corporation's implementation team defines a project type for infrastructure improvements, which involve work on their buildings. They capitalize the raw costs of infrastructure projects.

<i>Name</i>	Infrastructure
<i>Class</i>	Capital
<i>Service Type</i>	Field Work
<i>Description</i>	Capital improvements to infrastructure.

Costing Information

<i>Burdened</i>	Yes
<i>Schedule</i>	Labor Burden Only

Budget Control

<i>Allow Cost Budget Entry</i>	Yes

<i>(Cost) Entry Method</i>	Top Task by PA Period
<i>(Cost) Resource List</i>	Labor by Job, Non–Labor by Key Supplier
<i>Allow Revenue Budget Entry</i>	No
<i>Resource List for Status Reporting</i>	Labor by Job, Non–Labor by Expenditure Type
<u>Capitalization Information</u>	
<i>CIP Cost Type</i>	Raw
<i>Require Complete Asset Definition</i>	Yes
<i>Override Asset Assignment</i>	No
<i>CIP Grouping Method</i>	Expenditure Category
<i>Group Supplier Invoices</i>	Yes

Contract Project Types

Fremont Corporation’s implementation team defines these contract project types:

- Time and Materials
- Fixed Price
- Cost Plus

Fremont has many time and materials projects in which they charge their clients for the time spent performing the work and the cost of materials and expenses used in completing the project.

<i>Name</i>	Time and Materials
<i>Class</i>	Contract
<i>Service Type</i>	Field work
<i>Description</i>	Project is billed on a time and materials basis
<u>Costing Information</u>	
<i>Burdened</i>	Yes
<i>Schedule</i>	Internal Costing
<i>Allow Schedule Override</i>	No

Budget Control

<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Top Task by PA Period
<i>(Cost) Resource List</i>	Labor by Job
<i>Allow Revenue Budget Entry</i>	Yes
<i>(Revenue) Entry Method</i>	Project Level by Category
<i>(Revenue) Resource List</i>	Types by Revenue Categories
<i>Resource List for Status Reporting</i>	Labor by Job, Non-Labor Expenditure Types

Billing Information

<i>Funding Level</i>	Both
<i>Labor Schedule Type</i>	Bill Rate Schedule
<i>Organization</i>	Fremont Corporation
<i>Schedule</i>	Standard
<i>Non-Labor Schedule Type</i>	Bill Rate Schedule
<i>Organization</i>	Fremont Corporation
<i>Schedule</i>	Standard Non-Labor
<i>Labor Invoice Format</i>	Job
<i>Non-Labor Invoice Format</i>	Expenditure Type

Distribution Rules

<i>Name</i>	<i>Default</i>
Cost / Work	No
Work / Event	No
Work / Work	Yes

Fremont's implementation team defines a project type for fixed price contracts. Fremont's fixed price projects do not depend on the time it takes for Fremont to complete a project or the cost of the resources used to complete the project. Thus they will use the distribution rule of Cost / Event.

<i>Name</i>	Fixed Price
<i>Class</i>	Contract

Service Type	Field work
Description	Project is completed for a fixed price.
<u>Costing Information</u>	
Burdened	Yes
Allow Schedule Override	No
Schedule	Internal Costing
<u>Budget Control</u>	
Allow Cost Budget Entry	Yes
(Cost) Entry Method	Top Task by PA Period
(Cost) Resource List	Labor by Job
Allow Revenue Budget Entry	Yes
(Revenue) Entry Method	Project Level by Category
(Revenue) Resource List	Types by Revenue Categories
Resource List for Status Reporting	Labor by Job, Non-Labor by Expenditure Type
<u>Billing Information</u>	
Funding Level	Both
Labor Schedule Type	Bill Rate Schedule
Organization	Fremont Corporation
Schedule	Standard
Non-Labor Schedule Type	Bill Rate Schedule
Organization	Fremont Corporation
Schedule	Standard Non-Labor
Labor Invoice Format	Job
Non-Labor Invoice Format	Expenditure Type
<u>Distribution Rules</u>	
Name	Default
Cost / Event	No

Fremont's implementation team defines a project type for cost plus projects. Fremont uses an burden schedule for internal costing, a

burden schedule for labor items, and a standard bill rate schedule for non-labor items.

Fremont also specifies a billing extension for Fee to calculate fee for every cost plus project.

<i>Name</i>	Cost Plus
<i>Class</i>	Contract
<i>Service Type</i>	Field work
<i>Description</i>	Project uses cost plus processing
<u>Costing Information</u>	
<i>Burdened</i>	Yes
<i>Schedule</i>	Internal Costing
<i>Allow Schedule Override</i>	No
<u>Budget Control</u>	
<i>Allow Cost Budget Entry</i>	Yes
<i>(Cost) Entry Method</i>	Top Task by PA Period
<i>(Cost) Resource List</i>	Labor by Job
<i>Allow Revenue Budget Entry</i>	Yes
<i>(Revenue) Entry Method</i>	Project Level by Category
<i>(Revenue) Resource List</i>	Type by Revenue Categories
<i>Resource List for Status Reporting</i>	Labor by Job
<u>Billing Information</u>	
<i>Funding Level</i>	Both
<i>Labor Schedule Type</i>	Burden Schedule
<i>Revenue Schedule</i>	Cost Plus Billing
<i>Invoice Schedule</i>	Cost Plus Billing
<i>Non-Labor Schedule Type</i>	Bill Rate Schedule
<i>Organization</i>	Fremont Corporation
<i>Schedule</i>	Standard Non-Labor
<i>Labor Invoice Format</i>	Employee
<i>Non-Labor Invoice Format</i>	Expenditure Type

Billing Assignments

<i>Name</i>	<i>Default</i>
Fee	Yes

Distribution Rules

<i>Name</i>	<i>Default</i>
Cost / Work	No
Work / Work	Yes

Project Status Inquiry Setup

Project Status Inquiry Columns (**US** Vision Services US: USD)

Folder
☒ Project ☐ Task ☐ Resource

Order	Prompt	Definition	Factor By	Total
1	Project	P.SEGMENT1	☐	☐
2	Project Name	P.NAME	☐	☐
3	Ovr Bgt	DECODE((SIGN((NVL(C.BASELINE_BURDENED_COST_I	☐	☐
4	PTD Revenue	ROUND(NVL(A.REVENUE_PTD,0))	☒	☒
5	ITD Revenue	ROUND(NVL(A.REVENUE_ITD,0))	☒	☒
6	PTD Cost	ROUND(NVL(A.BURDENED_COST_PTD,0))	☒	☒
7	ITD Cost	ROUND(NVL(A.BURDENED_COST_ITD,0))	☒	☒
8	Commitments	ROUND(NVL(M.CMT_BURDENED_COST_PTD,0))	☒	☒
9	ITD Bgt Cost	ROUND(NVL(C.BASELINE_BURDENED_COST_ITD,0))	☒	☒
10	ITD Orig Bgt Cost	ROUND(NVL(C.ORIGINAL_BURDENED_COST_ITD,0))	☒	☒

Type

Generate View

Oracle Projects provides a default configuration for the Project Status Inquiry columns. Please review the default configuration to determine whether you need to change it to satisfy your business requirements. If the default configuration meets your business needs, you do not need to set up project status inquiry.

The Project Status window reads the view generated from the Project Status Inquiry Columns window. The installation of Oracle Projects automatically generates this view.

See Also

Project Status Inquiry: page 9 – 2

Dynamic Formatting in PSI

Dynamic formatting works in two ways in Project Status Inquiry:

- Currency amounts on the Events, Commitments and Actuals Drilldown windows are automatically displayed according to the currency format that you set up in General Ledger.
- For the Project, Task and Resource Status windows, you can mark columns as "Factor By" amounts. These columns are displayed according to the functional currency format. See: Currency Formatting in Project, Task, and Resource Windows: page 17 – 221.

See Also

Dynamic Currency (*Oracle Applications System Administrator's Guide*)

Common User Profile Options (*Oracle Applications User's Guide*)

Default Configuration for Project Status Inquiry

You can view the default configuration for the Project, Task, and Resource Status windows from the Project Status Inquiry (PSI) Columns window. If you can use these defaults, you do not need to make any changes in the PSI Columns window.

In the default configuration, the numeric columns are not marked as Totals columns and the Totals button is disabled.

The following sections describe the default PSI configuration for projects, tasks, and resources, including the order indicator, type (text or number), column prompt, and full column description for each default column. For the columns whose definition contains more than one data item, the table also includes a description of the formula. The actual formulas can be viewed under *Definition* in the PSI Columns window. The project and task PSI columns share the same default configuration, while the resource PSI columns have a slightly different default configuration.

Project and Task PSI Columns

The default Project and Task folders use 27 columns (three text and 24 numeric).

Order	Column Prompt	Column Description / Formula Description	Type
1	Project or Task	Project Number or Task Number	Text
2	Project Name or Task Name	Project Name or Task Name	Text
3	Ovr Bgt	Over Budget: Displays an asterisk (*) if the ITD actual burdened cost is greater than 110% of the ITD burdened cost budget amount; if not over budget, column is blank.	Text
4	ITD – Rev Bgt	ITD (Inception-to-date) revenue budget amount	Number
5	ITD – Act Rev	ITD actual revenue	Number
6	ITD – Cst Bgt	ITD current burdened cost budget amount	Number
7	ITD – Act Cost	ITD actual burdened cost	Number
8	Commit Amt	PTD (Period-to-date) commitment burdened cost	Number
9	PTD – Cst Bgt	PTD current burdened cost budget amount	Number
10	PTD – Act Cost	PTD actual burdened cost	Number
11	ITD – Bgt Hrs	ITD current labor hours budget amount	Number
12	ITD – Act Hrs	ITD actual labor hours	Number
13	PTD – Bgt Hrs	PTD current labor hours budget amount	Number
14	PTD – Act Hrs	PTD actual labor hours	Number
15	Tot – Rev Bgt	Total current revenue budget amount	Number
16	Tot – Cst Bgt	Total current burdened cost budget amount	Number
17	Tot – Bgt Hrs	Total current labor hours budget amount	Number

Table 17 – 18 (Page 1 of 2) Default Project and Task PSI Columns

Order	Column Prompt	Column Description / Formula Description	Type
18	Tot – Orig Rev Bgt	Total original revenue budget amount	Number
19	Tot – Orig Cst Bgt	Total original burdened cost budget amount	Number
20	Tot – Orig Bgt Hrs	Total original labor hours budget amount	Number
21	ITD – Orig Rev Bgt	ITD original revenue budget amount	Number
22	Fin % Cmpl	Financial percentage complete: ITD actual burdened cost / total current burdened cost budget amount × 100	Number
23	Hrs % Cmpl	Hours percentage complete: ITD actual labor hours / (Total current budget labor hours × 100)	Number
24	Est to Cmpl	Estimate to Complete: Total current burdened cost budget amount – (ITD actual burdened cost + PTD commitment burdened cost)	Number
25	Tot Cst – ITD	ITD total cost: ITD actual burdened cost + PTD commitment cost	Number
26	Bgt Mgn	Budgeted margin: Total current revenue – Total current burdened cost	Number
27	Act Mgn – ITD	ITD Actual margin: ITD actual revenue – ITD actual burdened cost	Number

Table 17 – 18 (Page 2 of 2) Default Project and Task PSI Columns

Resource PSI Columns

The default Resource folder uses 29 columns (3 text and 26 numeric). The default columns for the Resource folders are the same as the default columns for the Project and Task folders, with the following exceptions:

Order	Column Prompt	Column Description / Formula Description	Type
1	Resource	The Resource Alias	Text
2	Resource Name	The Resource Name	Text
22	ITD – Act Qty	ITD (Inception–to–date) actual quantity (NOTE: Only quantities that are not labor hours will be displayed.)	Number
23	Tot – Bgt Qty	Total current budget quantity (NOTE: Only quantities that are not labor hours will be displayed.)	Number
24	Fin % Cmplt	Financial percentage complete: ITD actual burdened cost / total current budget burdened cost × 100	Number
25	Hrs % Cmplt	Hours percentage complete: ITD actual labor hours / total current budget labor hours × 100	Number
26	Est to Cmplt	Estimate to Complete: Total current budget burdened cost – (ITD actual burdened cost + PTD commitment burdened cost)	Number
27	Tot Cst – ITD	ITD total cost: ITD actual burdened cost + PTD commitment cost	Number
28	Bgt Mgn	Budgeted margin: Total current revenue – total current burdened cost	Number
29	Act Mgn – ITD	ITD Actual margin: ITD actual revenue – ITD actual burdened cost	Number

Table 17 – 19 (Page 1 of 1) Default Resource PSI Columns

Rounding in Default Columns

The expressions used to define the default PSI columns provided with Oracle Projects include a rounding factor of zero (round to the nearest

whole number). For example, the definition of ITD – Act Rev (ITD actual revenue) is:

■ `ROUND(NVL(A.REVENUE_ITD,0),0)`

If you want decimal values (cents, for example) to appear in the ITD actual revenue figure, you change the final zero to a higher number (2 for cents, or 3 if you want to see fractions of cents).

If the ROUND expression is present but no value is given for the rounding factor, the expression is rounded to 0 decimal places.

You should use rounding in each expression, particularly if the expression includes a calculation.

The ROUND expression will work correctly only if you have not checked the Factor By check box for a PSI column in the PSI Columns window. If you check the Factor By check box, the column displays amounts based on the currency format defined in General Ledger. The result can be that the numbers are first rounded, and then have a decimal point and zeroes appended to them to match the required formatting.

Non-Default Configuration for Project Status Inquiry

If the default configuration does not meet your business needs, you can configure Project Status Inquiry to display alternate columns. You can display the information that is important for managing your business by defining rules to derive alternate column values to display in the Project Status window.

Project Status Inquiry (PSI) uses a maximum of 33 columns: 3 text columns for descriptions or comments, and 30 numeric columns for ratios, percentages, and amounts. Each status folder (project, task, and resource) in Project Status Inquiry can display all or a portion of the columns available to that folder.

Each folder can display only values that are appropriate to the folder type. For example, only a Resource PSI folder can display quantities.

Considerations for Your Company's PSI Column Strategy

Consider the following points before altering your PSI column configuration:

- Each status folder can have an entirely different combination of columns.
- You can define rules for columns that read data from any table or view in an Oracle database. See: PSI Extension: page 17 – 222.
- Altering column definitions can degrade your product's performance. You should consider the performance implications of any new column definition.

Defining Non–Default Columns

You can use one of three methods to alter your PSI column setup during implementation to better suit your company's needs:

1. Select different text or numeric column definitions using the list of values in the Project Status Inquiry Columns window. See: Using Lists of Values: page 17 – 220.
2. Manually modify the predefined column definitions in the PSI Columns window using SQL expressions. See: Using SQL Expressions: page 17 – 220.
3. Write a client extension using PL/SQL procedures. See: PSI Extension: page 17 – 222.



Attention: If you make any changes in the PSI Columns window, you must save your changes and choose Generate View before the Project Status window will reflect your changes. You do not have to generate a view if you have changed only your client extension.

If PSI determines that a column value is blank (Definition field in the PSI Columns window left blank) or a NULL value (PSI unable to process SQL expression), the Project Status window will display a zero (for numeric column types) or leave the field blank (for text columns). To leave the value field blank for a numeric column, you must enter TO_NUMBER(null) in the Definition field in the PSI Columns window.

Column Setup Window

You can accomplish the first two methods by using the PSI Columns window (choose Setup, Project Status Columns from the Navigator). These are not only simpler than the third option; they will also give better performance results.

Regardless of which method you choose to change your PSI column configuration, you enter column prompts in the PSI Column window.

The Project Status window always reads column prompts from the view generated by this window.

Using Lists of Values

Using the first method, you select from 120 column definitions in the list of values for the column definition you want to change. Oracle Projects displays a list of values for either text or numeric column definitions, depending on the column type of the active field. Numeric column definitions are preceded by one of the following letters:

- A = actual amounts (cost and revenue)
- C = cost budget amounts
- M = commitment amounts
- R = revenue budget amounts



Attention: When you have made and saved your changes, choose Generate View to ensure that the appropriate project status folder (project, task, or resource) will reflect your changes.

Using SQL Expressions

The second method involves selecting a column definition from the list of values in the PSI Columns window, then modifying it with SQL expressions, as described in the examples below.

Example 1: Hours Percentage Complete

The definition of the Hours Percentage Complete column, one of the default PSI columns provided with Oracle Projects, is:

- **ROUND(DECODE(C.BASELINE_LABOR_HOURS_TOT,0,0,
(A.LABOR_HOURS_ITD/C.BASELINE_LABOR_HOURS_TOT) *
100),0)**

The formula divides ITD labor hours by the total budgeted labor hours to obtain the percent complete. If total budgeted labor hours equal zero, zero is returned as the result. Following is an explanation of each element of this definition:

- **ROUND(x,y)**

Round the expression *x* to *y* decimal places. If no value is given for *y*, round to 0 decimal places.

- **DECODE(w,x,y,z)**

If the expression *w* results in the value *x*, return the value *y*; otherwise, return the value *z*.

- ***x/y***

Divide *x* by *y*. Other common operators are: * (multiply), + (add), and – (subtract).

- ***x * 100***

Multiply *x* by 100. This is added to the definition to move the decimal point for a percentage expression.

Example 2: Over Budget

The Over Budget column, another default PSI column provided with Oracle Projects displays an asterisk if the project is more than 10% over its budget, and is blank otherwise. The definition for the column is:

- **DECODE**
((SIGN((NVL(C.BASELINE_BURDENED_COST_ITD,0) * 1.1) –
(NVL (A.BURDENED_COST_ITD,0) + NVL
(A.BURDENED_COST_ITD,0) + NVL
(M.CMT_BURDENED_COST_PTD,0))))),-1,"*",NULL)

This definition contains some additional elements:

- **SIGN(*x*)**

If *x* is a positive number or 0, SIGN(*x*) = 1. If *x* is a negative number, SIGN(*x*) = –1.

- **NVL(*x*,*y*)**

If *x* is not null, return *x*. Otherwise, return *y*.

Currency Formatting in Project, Task, and Resource Windows

You can use the Project Status Column Setup window to enable selected column definitions for factoring functionality. Columns that are enabled for factoring may be factored (formatted) at runtime. Also, the amounts in the columns are automatically displayed according to the functional currency format defined in General Ledger. See: *Format Masks, Oracle General Ledger User's Guide*.

► To mark columns for factoring and functional currency formatting:

1. Navigate to the Project Status Inquiry Columns window. Select Project, Task, or Resource in the Folder region.
2. Check the Factor By check box for each column definition that you want to enable for factoring and functional currency formatting.

Totals in the Project Window

You can use the Project Status Column Setup window to mark selected column definitions as totals columns.

If you set up a Totals column, and mark it as a currency amount, the total amounts for the column are displayed according to the functional currency format defined in Oracle General Ledger. See: *Format Masks Oracle General Ledger User's Guide*.

► To mark columns as Totals columns:

1. Navigate to the Project Status Columns window.
2. In the Folder region, select Project.
3. For each column definition you want to mark as a total column, check the Total check box.



Attention: If the PSI Extension has been enabled for the PSI Project Status window, then you must also modify the PSI extension to enable Totals functionality. Even if you have marked columns as total columns, the Totals button on the PSI Project window will remain disabled until the PSI extension has been modified for Totals functionality.

PSI Client Extension

You can use a PSI client extension to derive an alternate column value, even if you have entered a column definition in the PSI Columns window. You can also use the extension to override the totals fields in the Project window.

To use a PSI client extension, you must:

- write the logic in a PL/SQL procedure and then store the procedure in the database
- define the column prompt for the column in the Project Status Inquiry Columns window

Running the PSI client extension will degrade the product's performance. Therefore, define your client extension procedures with as narrow a scope as possible.

See Also

Oracle Applications Installation Manual for Windows Clients

The PSI Extensions Package

Oracle Projects provides a template package that contains the procedures that you can modify to implement the PSI client extension. The name of the package is **pa_client_extn_status**.

Print out and review the following files before you begin writing your PSI client extension. These files are located in the Oracle Projects admin/sql directory.

PAXVPS2B.pls.	PSI Extension Package Body Template. This file contains the procedure that you modify to implement the PSI client extension. You can define as many procedures as you want within this package or within the predefined procedures.
PAXVPS2S.pls	PSI Extension Package Specification Template. If you create procedures outside the predefined procedures within this package, you must also modify this file to include those new procedures.



Warning: Do not change the name of the **getcols** or **Get_Totals** procedures. In addition, do not change the parameter names, parameter types, or parameter order in your procedure.



Suggestion: After you write the procedure, do not forget to compile it and store it in the database. See: Storing Your Procedures: page 19 – 9.

We recommend that you keep the following documentation on hand as reference material while defining procedures: the *PL/SQL User's Guide and Reference Manual* and the *Oracle Projects Technical Reference Manual*.

The PSI Get Columns Procedure

The Get Columns procedure consists of three functions, one for each status folder (project, task, and resource):

- ProjCustomExtn
- TaskCustomExtn
- RsrcCustomExtn

The name of the Get Columns procedure is **getcols**.

Each function has a parameter or "switch" that you can enable to run only that part of the client extension. You can run all, none, or any combination of the functions. By default, all three switches are disabled.

If you enable the Get Columns procedure, the Project Status window displays the column prompts defined in the PSI Columns window and the values calculated by the extension. Because the values calculated by the extension override values defined in the PSI Columns window, you do not need to enter a definition for a column whose value is calculated by a client extension.

If the procedure returns a NULL value, the Project Status window reads the value defined in the PSI Columns window.

Package.Procedure

The following table lists the parameters that Oracle Projects provides for the procedure **pa_client_extn_status.getcols**.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	The identifier of the project
X_task_id	IN	NUMBER	The identifier of the task. This value is set to 0 if called for the project level columns
X_resource_list_member_id	IN	NUMBER	The identifier for the resource. This value is set to 0 if called for project or task level columns
X_cost_budget_type_code	IN	VARCHAR2	The identifier of the cost budget type displayed in PSI. This value is NULL when called from the resource status folder
X_rev_budget_type_code	IN	VARCHAR2	The identifier of the revenue budget type displayed in PSI. This value is NULL when called from the resource status folder
X_status_view	IN	VARCHAR2	The identifier of the status folder: PROJECTS, TASKS, or RESOURCES

Table 17 – 20 (Page 1 of 2) Get Columns Parameters

Parameter	Usage	Type	Description
X_pa_install	IN	VARCHAR2	The identifier of the Oracle Projects product installed: BILLING or COSTING. BILLING includes all default PSI columns. COSTING includes all but the actual revenue and revenue budget columns.
X_derived_col1 through X_derived_col3	OUT	VARCHAR2	Three alphanumeric derived columns. Each can have up to 255 characters. Note: Column 1 refers to the first column in both the PSI Columns and the Project Status windows, Column 2 refers to the second column in each window, etc.
X_derived_col_4 through X_derived_col_33	OUT	NUMBER	30 numeric derived columns. Note: Column 4 refers to the fourth column in both the PSI Columns and the Project Status windows, Column 5 refers to the fifth column in each window, etc.

Table 17 – 20 (Page 2 of 2) Get Columns Parameters

The PSI Get Totals Procedure

The PSI Get Totals procedure consists of two functions for PSI Project window totals functionality:

- Hide_Totals
- Proj_Tot_Custom_Extn

By default, these functions are disabled. If the Get Columns procedure is enabled for the Project window, then one of these functions automatically disables the Project window Totals button, unless the extension is modified.

If you enable the PSI Totals client extension, you can override the totals fields for all thirty numeric columns on the Project window for which you assign values to the OUT-parameters. The Project window displays NULL for any OUT-parameter that is not assigned a value.

For added flexibility, the Totals query actually selects and summarizes columns from a user-defined view, PA_STATUS_PROJ_TOTALS_V. By default, this view maps directly to the base view queried by the PSI Project window. Providing you maintain the same column names and data types for the first 34 columns, you may change the select statement, substitute literals for columns, and add unions to PA_STATUS_PROJ_TOTALS_V.

The name of the Get Totals procedure is **Get_Totals**.

Package.Procedure

The following table lists the parameters that Oracle Projects provides for the procedure **pa_client_extn_status.Get_Totals**.

Parameter	Usage	Type	Description
x_where_clause	IN	VARCHAR2	The where clause of the totals query statement
x_in_tot_column4 to x_in_tot_column33	IN	NUMBER	30 totals columns. The totals query assigns the totals that it returns to these columns. Column 4 refers to the fourth column in the PSI columns and the Project Status Inquiry windows.
x_in_tot_column4 to x_in_tot_column33	OUT	NUMBER	30 totals columns. The totals assigned by the Get_Totals procedure. Column 4 refers to the fourth column in the PSI columns and the Project Status Inquiry windows.

Table 17 – 21 (Page 1 of 2) Get Totals Parameters

Parameter	Usage	Type	Description
x_error_code	OUT	NUMBER	Error handling code. NOTE: A non-zero number invokes error processing by the PSI Project window and terminates totals processing.
x_error_message	OUT	VARCHAR2	User-defined error message. The non-zero error handling code and the user-defined message are displayed to the user in the event of an error. To facilitate debugging, the PSI Project window displays the totals returned by the totals query from PA_STATUS_PROJ_TOTALS_V.

Table 17 – 21 (Page 2 of 2) Get Totals Parameters

User-Defined Totals View

The following table lists the column names and data types that Oracle Projects provides for the user-defined totals view, PA_STATUS_PROJ_TOTALS_V.

While the first 34 column names and data types are required for the PSI Project window totals functionality, you may make modifications, such as changing the select statement or adding unions and new columns.

Column Name	Null	Type
PROJECT_ID	NOT NULL	NUMBER(15)
COLUMN1	NOT NULL	VARCHAR2(240)
COLUMN2	NOT NULL	VARCHAR2(240)
COLUMN3	NOT NULL	VARCHAR2(240)
COLUMN4 – COLUMN33	NOT NULL	NUMBER

Table 17 – 22 PA_STATUS_PROJ_TOTALS_V

The default select statement for PA_STATUS_PROJ_TOTALS_V is shown below:

```
CREATE or REPLACE FORCE VIEW PA_STATUS_PROJ_TOTALS_V
(PROJECT_ID,
```

```

COLUMN1,
COLUMN2,
COLUMN3,
COLUMN4...
)
AS SELECT
spg.project_id
spg.column1,
spg.column2,
spg.column3,
spg.column4...
FROM pa_status_proj_generic_v spg;

```

See Also

Project Summary Amounts: page 9 – 11

Tips for Setting Up Project Status Inquiry (PSI)

Definitions of Terms Used in This Section:

base view A view used to provide information in a window. Each base view can have up to 33 columns. The base views used by the Project Status Inquiry (PSI) window are generated in the Column Setup window when you choose the Generate View button.

cursor A pointer to a row in the database.

derived column A PSI column in which the displayed amount is derived from stored amounts using a subset of SQL expressions.

lower-level PSI views Views that were designed to improve PSI performance. These 40 or more views are used by the default PSI columns and any others that you define in the Column Setup window.

The lower-level PSI views use function calls and other sophisticated technical devices. Because of their complexity and the fact that they may change from release to release, the lower-level PSI views are not documented in the *Oracle Projects Technical Reference Manual (TRM)*.

super views Views that contain all summarized values. The super views each contain up to 126 columns. Each super view contains all

available accumulation columns for a project, task, or resource. (Some columns, such as quantities, are only applicable for resources.)

Following are the super views:

PA_STATUS_PROJ_V	Project Status Window view
PA_STATUS_TASK_V	Task Status Window view
PA_STATUS_RSRC_V	Resource Status Window view

PSI Setup Tips

1. **Keep the following facts in mind when writing the PSI client extension:**
 - You do not need to enter a column definition for any column if your PSI extension will calculate the column's value.
 - Even if you use a PSI extension to calculate a column's value, the column's prompt always comes from the PSI Columns window.
 - If you change only the PSI extension, you do not need to generate a new view for the Project Status window to reflect your changes.
 - If your extension returns a NULL column value, the Project Status window will display the column value defined in the PSI Columns window.
 - Since using the PSI extension degrades the product's performance, you should limit the extension's scope as much as possible.
2. **Define as many columns as possible using the Column Setup window rather than the PSI extension.**

The Column Setup window creates views that yield better performance than calls to the PSI client extension, which is called by Post-Query triggers in PSI. This means that as each row is displayed on the PSI screen, a trigger calls the extension! This can cause performance delays, since the system will be sitting and thinking before displaying each row.

For best performance, define as many of the PSI columns as possible in the Column Setup window.

There are restrictions to using the Column Setup window for derived numbers:

- The expression for each column must use the column names defined in the column definition list of values. No other columns or tables may be referenced in the Column Setup window.

- Conditional logic is limited to the SQL "decode", "sign", and "nvl" functions. These functions are described in the Project Status Inquiry Setup section of the *Oracle Projects User's Guide*.

If the PSI window you want to design requires very complex conditional logic or select statements on column names or tables other than those displayed in the column definition list of values, then use the PSI client extension.

3. Use the "super views" when customizing the PSI Client Extension

Use the super views when you customize the PSI client extension. The super views probably contain all the information you want to display, and they are documented in the *Oracle Projects Technical Reference Manual (TRM)*.



Attention: Each of the super views contains amounts for all levels of the WBS (work breakdown structure) and all resources. Therefore, you only need one cursor for each status window. For example, if budgets are maintained for the lowest-level tasks on a given project, then the parent task budget amounts will be the sum of their corresponding child task budget amounts. The sample code in the PSI client extension demonstrates how to execute one cursor in each view.

The resource super view (PA_STATUS_RSRC_V) contains two sets of data: project-level resources and task-level resources. The sample code in the PSI client extension demonstrates how to point to project-level or task-level data.

4. You only need to use one cursor for multiple levels in the WBS.

Example: Suppose you want your PSI client extension to calculate ten percent of Accumulated Cost ITD. The project has the following three tasks:

Task	Accumulated Cost ITD	Calculation	Derived Column Value
1	100	(100 * .10)	10
1.1	60	(60 * .10)	6
1.2	40	(40 * .10)	4

Table 17 – 23 (Page 1 of 1)

As shown in the sample code below, you can display these amounts by defining one cursor and calculation for each row. Because the amounts are stored for all levels of the Task WBS, only one cursor and calculation needs to be executed for each task in the WBS.

Sample code to calculate 10% of Accumulated Cost ITD:

The select statement includes the following code:

```
SELECT      nvl(burdened_cost_itd, 0)
INTO        p_burdened_cost_itd
FROM        pa_status_rsrc_v
WHERE       project_id = x_project_id
AND         task_id     = x_task_id
AND         resource_list_member_id =
x_resource_list_member_id;
```

The following line does the calculation and assigns the result to column 30:

```
x_derived_col_30 := ROUND(p_burdened_cost_itd * .1)
```

Remember, for each row in the WBS, you only need to execute a calculation once in the PSI client extension.

5. **Make sure that default columns prompts are defined in the Column Setup window.**

If you have made changes in the Column Setup window and subsequently generated views that have errors, you must correct the definitions in the Column Setup window and choose Generate. Even if you are using the PSI client extension, valid base views and default column prompts must have been generated in the Column Setup window.

6. **You can select which of the three status windows uses the PSI client extension.**

You can have one PSI window that calls the extension and another that does not call the extension.

- If you want a PSI window to call the client extension for any of its columns, set the extension switch for that window type (project, task, or resource) to Y.
- If you do not want a PSI window to call the client extension for any of its columns, set the extension switch for that window type to N (the default setting).

The switches are indicated in the client extension as follows:

- Project Status Window: ProjCustomExtn
- Task Status Window: TaskCustomExtn
- Resource Status Window: RsrcCustomExtn

This information is also described under Project Status Inquiry Setup, *Oracle Projects User's Guide*.

7. You can combine Column Setup window definitions and PSI client extension calls.

Within the same PSI window, you can define some columns in the Column Setup window and define other columns in the PSI client extension. You can also define a column in *both* the Column Setup window *and* the client extension. For example:

1. If the client extension switch for a PSI window is set to N, then PSI uses the column definitions in the Column Setup window.
2. If the following conditions are true, then PSI use the client extension value:
 - The client extension switch for a PSI window is set to Y
 - A column definition is defined in the Column Setup window
 - A column definition is defined in the client extension
 - The client extension returns a non-null value
3. If the following conditions are true, then PSI uses the Column Setup window value:
 - The client extension switch for a PSI window is set to Y
 - A column definition is defined in the Column Setup window
 - A column definition is defined in the client extension
 - The client extension returns a null value
4. If the column definition in Column Setup is defined, and a column definition in the client extension is defined, and the switch is set to Y, the value that shows in PSI is determined as follows:
 - If the client extension returns a non-null value for the PSI column, the client extension non-null value is displayed in PSI.
 - If the client extension returns a null value, then whatever is defined in Column Setup is displayed in PSI.
5. If you want to display a blank in the PSI window for a numeric column, you must type the following in the Column Setup column definition: `TO_NUMBER(null)`

If either nothing, blank or null is specified in the Column Setup window for a numeric column definition, then the PSI window displays a zero.

8. You can display two text column values in one text column.

You cannot set up the PSI status windows to display more than three text columns. Instead, use the PSI client extension to concatenate two values (such as two dates) in a string. Assign the string to one of the three text columns.

Profile Options

Specify Profile Options

You use profile options to specify default values that affect system processes, system controls, and data entry. Your System Administrator needs to set up Oracle Projects profile options in the System Profile Values Window. See: *Setting User Profile Options Oracle Applications System Administrator's Guide*.

We recommend that you set up the Oracle Projects application level profile options that affect system processing.

You may want to review the default values for all Oracle Projects profile options and modify them according to your site's needs. For detailed information about each profile option in Oracle Projects, see Oracle Projects Profile Options (Appendix B) .

Multi–Organization Considerations for Profile Options Values

In a multi–organization environment, you can confine a profile option value to a specific operating unit by defining the profile options at the responsibility level. You should review the following Oracle Projects system profile options to determine if you want to define responsibility–level profile option values:

- PA: Cross–Project Responsibility
- PA: Debug Mode
- PA: Default Expenditure Organization in AP / PO
- PA: Default Public Sector

You can also set the profile option MO: Operating Unit to specify which operating unit a particular responsibility corresponds to. For more details about implementing multiple organization support, see: *Multiple Organizations in Oracle Applications*.

Fremont Corporation’s implementation team sets the following profile options that affect Oracle Projects processing:

Level = Application Application = Oracle Projects	
Profile	Value
PA: Expenditures Per Set	500

PA: Expenditure Items Per Set	1000
PA: Cost Distribution Lines Per Set	2000
PA: Projects Per Set	500

See Also

Oracle Projects Profile Options (Appendix B)

Updating Profile Options for Integration With Other Products: page 18 – 47

Personal Profile Values Window (*Oracle Applications User's Guide*)

Overview of Setting User Profiles (*Oracle Applications System Administrator's Guide*)

Common User Profile Options (*Oracle Applications User's Guide*)

Descriptive Flexfields

Use Descriptive Flexfields to customize your application to fit your unique business needs. For example, you may want to:

- Record the reason for adding new funding lines to a project
- Record the location of work performed on a task by latitude and longitude

You can also create context-sensitive Descriptive Flexfields that let you enter information based on the value you entered in another field. For example, you may want to:

- Enter the likelihood of winning a B & P project
- Enter the purpose of the meal for each meal's expense report item

See Also

Descriptive Flexfields in Oracle Projects: page D – 2

AR: Transaction Flexfield QuickPick Attribute: page 18 – 47

Defining Descriptive Flexfields *Oracle Applications Flexfields Guide*

AutoAccounting and the Account Generator

The following topics are discussed in this section:

- Overview of AutoAccounting: page 17 – 237
- Implementing AutoAccounting: page 17 – 239
- AutoAccounting Sample Implementation: Fremont Corporation: page 17 – 256
- AutoAccounting Functions: page 17 – 258
- Using the Account Generator in Oracle Projects: page 17 – 302
- Implementing the Account Generator for Oracle Projects: page 17 – 306
- Comparing AutoAccounting to the Workflow Account Generator: page 17 – 327

Overview of AutoAccounting

Oracle Projects creates many different accounting transactions throughout its business cycle (when posting labor cost debits and labor revenue credits, for example). You can use AutoAccounting to specify how to determine the correct general ledger account for each transaction.

Examples of accounting practices you can implement using AutoAccounting include:

“Charge central headquarters with all advertising costs regardless of which region those advertisements benefit.”

“Credit payroll costs to the payroll liability account belonging to the division for which an employee works.”

“Assign revenue from subcontractors to the company and cost center managing the project.”

When you implement AutoAccounting, you define the rules and circumstances that determine which general ledger accounts Oracle Projects uses. Oracle Projects then uses the rules when performing accounting transactions.

When you implement AutoAccounting, you define the rules governing which general ledger accounts Oracle Projects uses under which circumstances. Oracle Projects uses the rules you define whenever it performs an accounting transaction.

How AutoAccounting works

For each accounting transaction, you define rules to determine the appropriate account to charge. Each accounting transaction is identified by an AutoAccounting function. AutoAccounting functions are components of programs that you submit to generate accounting entries.

AutoAccounting Functions

Table 17 – 24 lists each AutoAccounting function and the associated business activities.

AUTOACCOUNTING FUNCTION		BUSINESS ACTIVITY	
Revenue and Billing			
Burden Cost Revenue Account		Determines revenue account for burden costs	
Event Revenue Account		Determines revenue account for revenue events	
Expense Report Revenue Account		Determines revenue account for expense report items	
Intercompany Revenue Account		Determines revenue account for cross-charged transactions requiring intercompany billing processing	
Labor Revenue Account		Determines revenue account for labor items	
Miscellaneous Transaction Revenue Account		Determines revenue account for miscellaneous transactions	
Revenue and Invoice Accounts		Determines accounts to track revenue and receivables	
Supplier Invoice Revenue Account		Determines revenue account for supplier invoice items	
Usage Revenue Account		Determines revenue account for usage items	
Costing			
Borrowed Account		Determines borrowed account, which is the credit side of the borrowed and lent transaction	
Burden Cost Account		Determines cost account for burden costs	

Table 17 – 24 (Page 1 of 2) AutoAccounting Functions

Costing	
Burden Cost Clearing Account	Determines clearing account for burden costs
Expense Report Cost Account	Determines cost account for expense report items
Expense Report Liability Account	Determines liability account for expense report costs
Intercompany Invoice Accounts	Determines receivables and rounding accounts for cross-charged transactions requiring intercompany billing processing
Labor Cost Account	Determines cost account for all labor items, including straight time and overtime
Labor Cost Clearing Account	Determines clearing account for labor costs
Lent Account	Determines lent account, which is the debit side of the borrowed and lent transaction
Miscellaneous Transaction Clearing Account	Determines clearing account for miscellaneous transactions
Miscellaneous Transaction Cost Account	Determines cost account for miscellaneous transactions
Provider Cost Reclass Cr	Determines credit amount for cross-charged costs reclassified by the provider operating unit
Provider Cost Reclass Dr	Determines debit amount for cross-charged costs reclassified by the provider operating unit
Supplier Invoice Cost Account	Determines cost account for adjusted supplier invoice items
Total Burdened Cost Credit	Determines credit account for total burdened costs for all items on burdened projects
Total Burdened Cost Debit	Determines debit account for total burdened costs for all items on burdened projects
Usage Cost Account	Determines cost account for usage items
Usage Cost Clearing Account	Determines clearing account for usage costs

Table 17 – 24 (Page 2 of 2) AutoAccounting Functions

Implementing AutoAccounting

To implement AutoAccounting, you define AutoAccounting rules to generate account combinations, then assign a set of rules to each AutoAccounting transaction you want to use for your company. You do not define AutoAccounting rules for each project or contract.

Implement your Oracle Projects system with your AutoAccounting plan in mind. AutoAccounting derives values for account combinations based on project information for all accounting

transactions in Oracle Projects. Consequently, the way you organize your chart of accounts affects your implementation data. You can use most of the implementation data that you define for Oracle Projects as inputs to the AutoAccounting rules that you define.

► **To implement AutoAccounting:**

1. Design your AutoAccounting setup based on your implementation data.
2. Define lookup sets. See: Define Lookup Sets: page 17 – 250.
3. Define rules. See: Define Rules: page 17 – 240.
4. Assign rules for each function. See: Assign Rules: page 17 – 252.

See Also

AutoAccounting sample implementation: Fremont Corporation: page 17 – 256

Defining AutoAccounting Rules

Each AutoAccounting rule you define supplies one Accounting Flexfield segment value at a time. Thus, you need to specify one AutoAccounting rule for each segment in your Accounting Flexfield for each AutoAccounting transaction you want to use.

Some of the AutoAccounting rules you define can be quite simple, such as always supplying a constant company code or natural account. Others can draw upon context information (parameters), such as the revenue category for a particular posting or the organization that owns a particular asset. You can even use multiple parameters to provide a segment value.

You can reuse the same AutoAccounting rules for many different functions and their transactions.

You define rules based on project information that you enter. You can use these AutoAccounting parameters as input values to your rules.

AutoAccounting does not use Flexfield security rules when determining a valid account combination. You must define

your AutoAccounting rules to determine the appropriate account based on the rules required by your company.

AutoAccounting Parameters

AutoAccounting allows you to use the AutoAccounting parameters as inputs for your AutoAccounting rules. The following table lists these parameters.

Not all of the parameters in the table are available for all functions. Submit the **AutoAccounting Functions Listing** for a complete listing of all of the parameters available for each function.

AUTOACCOUNTING PARAMETER	MEANING
Class Code	AutoAccounting class code on the project. Note: Since you can define many project classification categories, the Class Code parameter always corresponds to the one classification category that you specified as the AutoAccounting classification category.
Compensation Rule	Compensation rule of the employee who incurs the expenditure.
Customer ID	Internal ID of the internal customer you define for the receiver operating unit.
Customer Name	Internal customer you define for the receiver operating unit.
Employee Number	Employee number of the employee who incurs the expenditure.
Event Num	Event number of the event.
Event Organization	Organization for the event.
Event Organization ID	Internal ID of the organization for the Event
Event Type	The classification of the event.
Expenditure Category	Expenditure category of the expenditure item.

Table 17 – 25 (Page 1 of 3) AutoAccounting Functions

AUTOACCOUNTING PARAMETER MEANING	
Expenditure Item ID	Internal ID that identifies each expenditure item
Expenditure Operating Unit	Operating unit that incurs the expenditure.
Expenditure Operating Unit ID	Internal ID of the operating unit that incurs the expenditure.
Expenditure Organization	Organization that incurs the expenditure.
Expenditure Organization ID	Internal ID of the organization that incurs the expenditure.
Expenditure Type	Expenditure type of the expenditure item.
Labor Cost Multiplier	Labor cost multiplier of the task charged.
Non-Labor Resource	Non-labor resource utilized for the expenditure.
Non-Labor Resource Org.	Non-labor resource-owning organization.
Non-Labor Resource Org. ID	Internal ID of the non-labor resource-owning organization.
Person ID	Internal ID of the employee who incurs the expenditure.
Project ID	Internal ID of the project being charged.
Project Number	The number of the project being charged.
Project Operating Unit	Project-managing operating unit.
Project Operating Unit ID	Internal ID of the project-managing operating unit.
Project Organization	Project-managing organization.
Project Organization ID	Internal ID of the project-managing organization.
Project Type	Project type of the project charged.
Provider Organization	Organization incurring the cross-charged transaction.

Table 17 – 25 (Page 2 of 3) AutoAccounting Functions

AUTOACCOUNTING PARAMETER MEANING	
Provider Organization ID	Internal ID of the organization incurring the cross-charged transaction.
Receiver Organization	Organization whose project receives the cross-charged transaction.
Receiver Organization ID	Internal ID of the organization whose project receives the cross-charged transaction.
Revenue Category	Revenue category of the expenditure item.
Task ID	Internal ID of the task charged.
Task Number	Task number of task charged.
Task Organization	Task-managing organization.
Task Organization ID	Internal ID of the task-managing organization.
Task Service Type	Service type of the task charged.
Top Task ID	Internal ID of the highest level parent task of the task charged.
Top Task Number	Task number of the highest level parent task of the task charged.
Supplier Type	Supplier type of the supplier on the invoice.

Table 17 – 25 (Page 3 of 3) AutoAccounting Functions

See Also

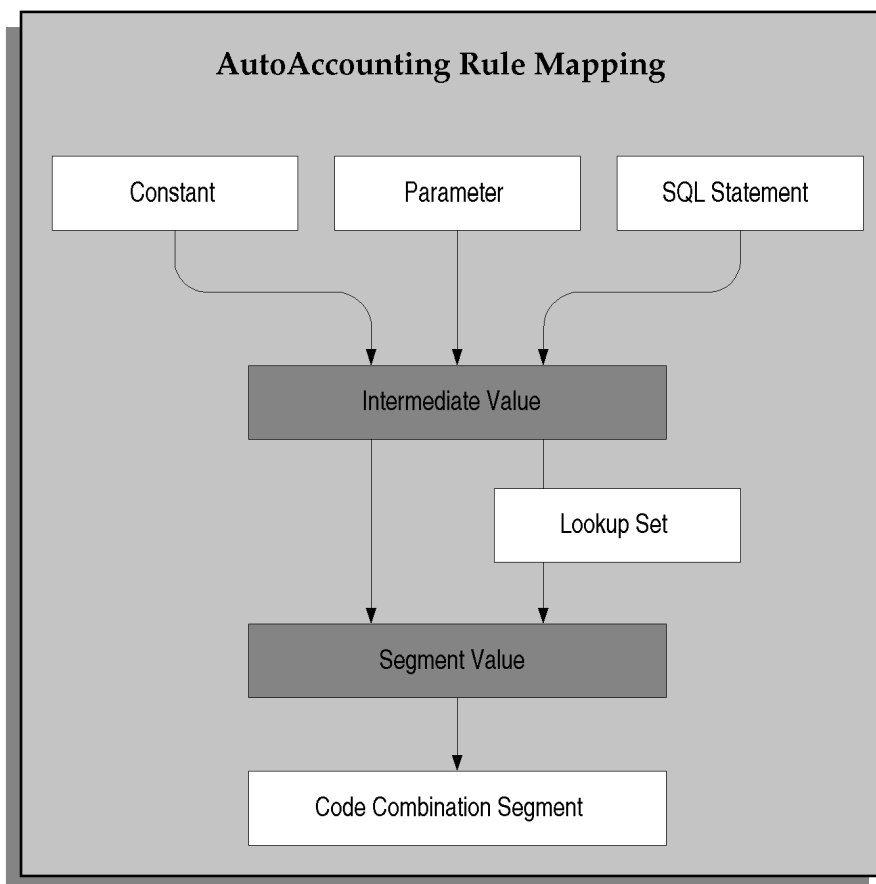
AutoAccounting Functions Listing: page 10 – 4

Selecting an Intermediate Value Source

To define an AutoAccounting rule, you first specify an intermediate value (an "input" for the rule). You can draw an intermediate value from one of three intermediate value sources:

Constant	Always supply a particular intermediate value (usually an Accounting Flexfield segment code)
Parameter	Use a predefined parameter as an intermediate value; make the rule context-sensitive based on one value
SQL Select Statement	Execute a SQL select statement to retrieve an intermediate value; make the rule dependent on multiple values and/or conditional statements

Figure 17 – 9



Using a Predefined Parameter

When you define an AutoAccounting rule, you can use a predefined parameter as an input value. Examples of parameters that you can use as context information include the project-managing organization, or the expenditure type of an expenditure item (see Table 17 – 25 for a complete list of AutoAccounting parameters.)

For example, suppose you want to define an AutoAccounting rule that provides a region code based upon the organization that is managing a project. You specify an intermediate value source of *Parameter*, since the project-managing organization is a predefined parameter; you specify *Project Organization* as the parameter name.

SQL statements to derive new parameters

AutoAccounting rules with SQL statements are intended to process rules that are dependent on more than one parameter. They are not intended to derive additional parameters using SQL which accesses application tables.

This type of use may affect processing performance and may not be supported based on the AutoAccounting function. If you determine that you need rules that reference application tables to derive additional values not provided by the AutoAccounting parameters, please contact your Oracle technical support representative before proceeding.

Using a SQL Select Statement in AutoAccounting Rules

You can define rules to read any value by using a SQL select statement. You should consider the performance implications of using SQL statements. Although many companies have implemented AutoAccounting SQL statement rules in a production environment, you should tune your SQL statement and test the AutoAccounting setup against volume data to check their performance quality before implementation.

Examples of AutoAccounting Rules with a SQL statement

The business rule translates to this logic:

If Project Type is 'Overhead'

then use Expenditure Organization

else use Project Organization

Rule

Name	Indirect Cost Center
Description	Determine the cost center for indirect costs, using Expenditure Organization for Overhead projects and Project Organization for all other indirect projects
Intermediate Value Source	SQL Statement
SQL Select Statement	select decode(:1, :2, :3, 'Overhead') from sys.dual
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Cost Center

Rule Parameters

Sequence	Parameter Name
1	Project Type
2	Expenditure Organization
3	Project Organization

In another example, Fremont Corporation wants to base the account segment value on the first descriptive flexfield segment for the expenditure item (PA_EXPENDITURE_ITEMS_ALL.ATTRIBUTE1).

Rule

Name	Descriptive flexfield segment
Description	Populate the AutoAccounting account segment value with the first descriptive flexfield segment value in the expenditure item.
Intermediate Value Source	SQL Statement

SQL Select Statement SELECT attribute1
FROM PA_EXPENDITURE_ITEMS_ALL
WHERE EXPENDITURE_ITEM_ID = :1

Rule Parameter

<i>Sequence</i>	<i>Parameter Name</i>
1	Expenditure Item ID

The SQL statement in the first example uses the SQL function of *decode*, which provides if/then logic – it compares values of an expression to determine a resulting value.

The decode statement refers the table *sys.dual* which always contains only one record.

For more information on the function 'decode', refer the *SQL Language Reference Manual*. For more information on the table 'dual', refer to the *Oracle RDBMS Database Administrator's Guide*.

Notation of SQL statement rule

You reference parameters in the SQL Statement with a colon followed by a number; for example as :1. You then map the parameter number in the SQL statement to the appropriate parameter number and parameter in the Rule Parameters for the rule. In the example above, :1 maps to the Project Type parameter which is listed as parameter 1 under Rule Parameters.

You must use SQL statement rules to define rule parameters. Reference each parameter in the rule with a different number, even if you are using the same parameter many times in a SQL statement. You can use up to 19 rule parameters per rule. Reference the rule parameter sequence numbers in numerical order. For example, do not reference :3 before :2.

Do not add a semicolon at the end of the SQL statement.

Selecting a Segment Value Source

After you specify an intermediate value, you specify one of the following segment value sources to indicate whether the intermediate value is already a valid segment value or whether AutoAccounting needs to translate it into a segment value using a lookup set:

Intermediate Value	Supply the intermediate value as a segment value; do not use a lookup set
Segment Value Lookup Set	Look up the intermediate value in a lookup set; translate the intermediate value into the corresponding segment value

You do not always need to use a lookup set when you write an AutoAccounting rule. If you define a simple constant rule, you probably do not need to use a lookup set to supply a segment value, since you generally supply a valid segment value as the constant.

For example, if you use a constant intermediate value, such as account number 4100, the intermediate value is already a segment value and therefore needs no translation. Or, if the value of a parameter already is a suitable segment value (as might be the case if you use the project number as part of your chart of accounts), you do not need a lookup set to translate it into a segment value.

However, if you use a parameter-based intermediate value such as an organization name, you need to specify the name of a lookup set that maps the names of organizations to the corresponding segment value.

You need to define a lookup set before you can use it in a rule.

However, if you prefer to define your rules before completing your lookup sets, you can define each lookup set's name and description, then define the intermediate values and segment values later.

AutoAccounting Rules Window Reference

Use this window to define and maintain AutoAccounting rules. You define AutoAccounting rules to generate account combinations. After you define rules, use the Assign Rules window to assign a set of rules to each AutoAccounting transaction you want to use.

Rule Name. Enter a unique, descriptive name for this AutoAccounting rule.

Intermediate value region

Use this region to define an AutoAccounting rule and its attributes such as whether it is based on a constant value, a predefined parameter, or a SQL select statement. Depending on a rule's intermediate value source, you also use this region to enter its constant value, parameter, or SQL select statement.

Source. Enter the source from which you want to determine an intermediate value for this rule. Oracle Projects provides the following intermediate value sources:

- **Constant.** Use a particular intermediate value which is not context sensitive (usually an Accounting Flexfield segment code).
- **Parameter.** Use a predefined parameter as an intermediate value; make rule context-sensitive based on one value.
- **SQL Select Statement.** Execute a SQL select statement to retrieve an intermediate value; make rule context sensitive based on more than one value.

Value. If you specified *Constant* as this rule's intermediate value source, enter the value you want Oracle Projects to supply as the intermediate value.

If you specified *Parameter* as this rule's intermediate value source, enter the parameter you want Oracle Projects to supply as the intermediate value.

If you specified *SQL Select Statement* the SQL Editor appears when you enter this field. Enter the statement you want Oracle Projects to use to retrieve an intermediate value.

Segment Value region

Source. Select the segment value source that you want Oracle Projects to use to derive an Accounting Flexfield segment value from the intermediate value. Oracle Projects provides the following segment value sources:

- **Intermediate Value.** Choose this source if this rule's intermediate value is already a valid segment value.
- **Segment Value Lookup Set.** Choose this source if this rule's intermediate value is not a valid segment value and must be mapped to a segment value through a lookup set.

Lookup Set. Select the lookup set that you want Oracle Projects to use to derive an Accounting Flexfield segment value. If you specified *Intermediate Value* as this rule's segment value source, Oracle Projects skips this field.

Lookup Sets button. This button navigates to the AutoAccounting Lookup Sets window.

Rule Parameters region

If you specified *SQL Select Statement* as this rule's intermediate value source, use this zone to define each parameter included in the SQL select statement this AutoAccounting rule uses.

If you specified either *Constant* or *Parameter* as this rule's intermediate value source, Oracle Projects skips this region.

Sequence. Enter the numeric value that corresponds to a parameter in the SQL select statement this AutoAccounting rule uses.

Parameter Name. Select the parameter that corresponds to the sequence number you entered in the previous field. You can choose any AutoAccounting parameter.

See Also

Defining AutoAccounting Rules: page 17 – 240

Defining a Lookup Set

To define a lookup set, you specify pairs of values. For each intermediate value, you specify a corresponding account segment value. One or more related pairs of intermediate values and segment values form a lookup set.

For example, if the phrase "World Headquarters" corresponds to a Company segment value of 01, use *World Headquarters* as the intermediate value and *01* as the segment value.

Or, suppose your business has five major regions (Northeast, South, Middle States, Southwest, and West), and you have a Region segment in your Accounting Flexfield. You probably need to create a lookup set that maps region names to the corresponding region code:

<i>Name</i>	Region Code
<i>Description</i>	Map region names to the corresponding Accounting Flexfield region segment code

Segment Value Lookups

<i>Intermediate Value</i>	<i>Segment Value</i>
Northeast	01
South	02
Middle States	03
Southwest	04
West	05

You may need several lookup sets to map organizations to cost centers, expenditure types to account codes, event types to account codes, or for other situations where the segment value depends upon a particular predefined parameter.

You can use a lookup set more than once; several AutoAccounting rules can use the same lookup set.

You define and modify lookup sets using the AutoAccounting Lookup Sets window.

AutoAccounting Lookup Sets Window Reference

Use this form to define, view, and maintain AutoAccounting lookup sets.

Name. Enter a unique, descriptive name for this lookup set.

Segment Value Lookup Region

Use this zone to specify an intermediate value, and then map that intermediate value to a specific segment value of your Accounting Flexfield.

AutoAccounting matches an intermediate value derived from an AutoAccounting rule with an intermediate value in the lookup set and determines the corresponding segment value you specify to derive an account code from your chart of accounts.

Intermediate Value. Enter the intermediate value that you want to map to an Accounting Flexfield segment value.

Ensure that you have entered a valid intermediate value. Valid intermediate values are those that match intermediate values that may be derived from AutoAccounting rules. Specify the values in the base language and ensure that the case and spelling match exactly. (For more information about the base language, see: Multilingual Support in

Oracle Projects: page 15 – 59.) For example, if you are mapping organization intermediate values to cost center segment values, you cannot enter 'RISK ANALYSIS' for an organization with the name of 'Risk Analysis'.

If AutoAccounting does not find a matching intermediate value in the lookup set, AutoAccounting provides an error message (Incomplete AutoAccounting Rules) notifying you that it could not build an Accounting Flexfield combination. You must correct your AutoAccounting setup and resubmit the process that triggered the AutoAccounting error.

Segment Value. Enter the Accounting Flexfield segment value that you want to map to with this intermediate value.

Ensure that you have entered a valid segment value. Valid segment values are those that are defined for your Accounting Flexfield segments. Values must match exactly numerically.

If AutoAccounting does not find a matching segment value in the lookup set, AutoAccounting provides an error message (Invalid Accounting Flexfield) notifying you that it could not build a valid Accounting Flexfield combination. You must correct your AutoAccounting setup and resubmit the process that triggered the AutoAccounting error.

Assigning Rules to Transactions

When you are assigning rules to an AutoAccounting function, you may want to assign different rules to different conditions. For example, you may want to account for indirect projects using one set of rules, and use two different sets of rules for billable items and nonbillable items on contract projects.

To make it easy to do this, Oracle Projects provides function transactions to each function, which identifies commonly used conditions in which you may want to assign different rules.

The following chart lists examples of function transactions under the Labor Cost Account function:

FUNCTION TRANSACTIONS	MEANING
Indirect, Private Labor	All items on indirect, private projects
Indirect, Public Labor	All items on indirect, public projects
Indirect, All	All labor items on indirect projects
Capital, Private, Capital	Capitalizable labor items on capital, private projects
Capital, Private, Non-Capital	Non-capitalizable labor items on capital, private projects
Capital, All	All labor items on capital projects
Contract, All	All labor items on a contract project

Table 17 – 26 Labor Cost Account Function (Page 1 of 1)

You can assign rules to function transactions for each AutoAccounting function.

You complete the following steps to assign AutoAccounting rules to AutoAccounting functions and transactions:

- Enable each transaction you want to use
- For each transaction you enable, you specify an AutoAccounting rule for each segment of your Accounting Flexfield

Enabling AutoAccounting Transactions

You tell Oracle Projects which AutoAccounting rules to use, under which circumstances, by assigning rules to transactions. In cases where an AutoAccounting function consists of several distinct transactions, you assign rules to each transaction you want to use. These rule assignments then determine which general ledger account AutoAccounting uses to process that transaction. Oracle Projects attempts to use the most appropriate transaction; if you have not enabled that transaction, it tries to use the fallback transaction.

For example, the Labor Revenue Account function, which Oracle Projects uses to credit a revenue account for labor revenue, consists of three transactions:

- Public Labor Revenue

- Private Labor Revenue
- All Labor Revenue

When Oracle Projects needs to credit a revenue account for labor performed on a public project, it first checks whether you have enabled the Public Labor Revenue transaction. If the transaction is enabled, Oracle Projects uses the AutoAccounting rules you assigned to the transaction to determine which account to credit.

If you have not enabled the Public Labor Revenue transaction, Oracle Projects checks the "fallback" transaction All Labor Revenue.



Suggestion: If your accounting practices do not distinguish between the contexts, you can simplify your AutoAccounting implementation by not enabling transactions; instead, you could implement only the All transaction.

You enable a transaction using the **Assign AutoAccounting Rules** window:

Defining segment rule pairings

After you enable a transaction, you match each segment in your Accounting Flexfield with the appropriate AutoAccounting rule. For example, if you have a two-segment Accounting Flexfield containing a Company segment and an Account segment, you assign one rule to the Company segment and one rule to the Account segment.

You use the **Assign AutoAccounting Rules** window to enable AutoAccounting transactions and assign rules to them.

Assign AutoAccounting Rules Window Reference

Use this window to assign an AutoAccounting rule to each segment of your Accounting Flexfield for the AutoAccounting transactions you want to use.

Name. Select the name of the AutoAccounting function for which you want to enable one or more transactions and assign rules. If you do not want to limit your search to a particular function, leave this field blank.

Oracle Projects predefines AutoAccounting functions; you cannot modify them, or define additional transactions.

Function Transactions region

Use this region to view the AutoAccounting transactions associated with this AutoAccounting function, and to enable each transaction you want to use.

Oracle Projects predefines AutoAccounting transactions; you cannot modify them, or define additional transactions.

Name. Oracle Projects displays each AutoAccounting transaction available for this AutoAccounting function.

Enabled. Check on this option if you want to enable this AutoAccounting transaction. Do not check the option if you do not want to enable this AutoAccounting transaction.

You can assign AutoAccounting rules to your Accounting Flexfield segments for this transaction regardless of whether you check or don't check this option. However, if you do not check the option, AutoAccounting does not recognize the associated rule assignment.



Suggestion: If your business does not distinguish between each kind of transaction, enable the *ALL* transaction.

If you do not enable any transactions, Oracle Projects automatically uses the *ALL* transaction.

Segment Rule Pairings region

Use this region to assign an AutoAccounting rule to each segment of your Accounting Flexfield for each transaction you want to use.

Number. Enter the number that corresponds to the Accounting Flexfield segment to which you want to assign an AutoAccounting rule for this transaction. You need to enter either a number or a segment name to identify an Accounting Flexfield segment.

You need to start your numbering sequence with the number zero (0).

Segment Name. Select the name of the segment to which you want to assign an AutoAccounting rule for this transaction. If you have already selected a number, Oracle Projects automatically displays the corresponding segment name.

Rule Name. Enter the AutoAccounting rule that you want to assign to this Accounting Flexfield segment for this transaction.

Rule Button. You can choose this button to navigate to the Define Rules window.

AutoAccounting Sample Implementation: Fremont Corporation

The sample AutoAccounting Implementation table, shown on the following two pages, illustrates Fremont Corporation's implementation of AutoAccounting. Each rule assigned to an AutoAccounting function appears under the appropriate Accounting Flexfield segment column.

AutoAccounting Function	AutoAccounting Rules		
	Company Segment	Cost Center Segment	Account Segment
Expense Report Costs Account: page 17 – 278	– Project Company	– Project Cost Center	– Expense Report Cost
Supplier Invoice Costs Account: page 17 – 290	– Project Company	– Project Cost Center	– Supplier Invoice Costs
Labor Cost Account: page 17 – 260	– Employee Company – Project Company	– Employee Cost Center – Project Cost Center	– Gov Marketing Labor – Indirect, Private Labor – Private, Billable Labor – Private, Non-Billable Labor – Public, Billable Labor – Public, Non-Billable Labor – Inventory – Transfer Out to Inventory
Usage Cost Account: page 17 – 283	– Resource Company	– Resource Cost Center	– Usage Costs
Event Revenue Account: page 17 – 293	– Project Company	– Project Cost Center	– Write-Off – Bonus
Expense Report Revenue Account: page 17 – 281	– Project Company	– Project Cost Center	– Expense Report Revenue
Supplier Invoice Revenue Account: page 17 – 292	– Project Company	– Project Cost Center	– Subcontractor Revenue
Labor Revenue Account: page 17 – 275	– Employee Company	– Employee Cost Center	– Private Fee Revenue – Public Fee Revenue
Usage Revenue Account: page 17 – 288	– Resource Company	– Resource Cost Center	– Usage Revenue
Total Burdened Cost Debit	– Employee Company	– Employee Cost Center	– Inventory
Total Burdened Cost Credit	– Employee Company	– Employee Cost Center	– Transfer Out to Inventory
Expense Report Liability Account: page 17 – 280	– Employee Company	– Division Cost Center	– AP Employee Liability
Labor Cost Clearing Account: page 17 – 268	– Employee Company	– Division Cost Center	– Payroll Clearing

Table 17 – 27 AutoAccounting Sample Implementation (Page 1 of 2)

AutoAccounting Function		AutoAccounting Rules	
	<i>Company Segment</i>	<i>Cost Center Segment</i>	<i>Account Segment</i>
Revenue and Invoice Accounts: page 17 – 295	– Project Company	– Project Cost Center	– Write-Off – Accounts Receivable – Unbilled Receivables – Unearned Revenue
Usage Cost Clearing Account: page 17 – 285	– Resource Company	– Resource Cost Center	– Usage Clearing

Table 17 – 27 AutoAccounting Sample Implementation (Page 2 of 2)

AutoAccounting Functions

In this section, we describe the AutoAccounting functions that you must implement to process accounting transactions for each of the following areas:

AutoAccounting rules are set up once for each chart of accounts. However, accounting rule assignments are operating unit-specific. In a multi-organization environment, you can use the multi-organization Replicate Seed Data process to replicate system-defined function transactions in each operating unit you set up. For each operating unit, you must enable cost function transactions or revenue and billing function transactions and assign proper accounting rules for Oracle Projects to use when automatically generating your accounting entries.

- Labor
 - Accounting for Labor Costs: page 17 – 260
 - Accounting for Burdened Cost: page 17 – 271
 - Accounting for Labor Revenue: page 17 – 275
- Expense Reports
 - Accounting for Expense Report Costs: page 17 – 278
 - Accounting for Expense Report Revenue: page 17 – 281
- Usages
 - Accounting for Usage Costs: page 17 – 283
 - Accounting for Usage Revenue: page 17 – 286
- Supplier Invoices
 - Accounting for Supplier Invoice Adjustment Costs: page 17 – 289
 - Accounting for Supplier Invoices Revenue: page 17 – 292
- Events
 - Accounting for Event Revenue: page 17 – 293
- Revenue and Invoices
 - Accounting for Revenue and Invoices: page 17 – 295

See Also

Overview of AutoAccounting: page 17 – 237

Implementing AutoAccounting: page 17 – 239

AutoAccounting Sample Implementation: Fremont Corporation: page 17 – 257

Accounting for Labor Costs

Labor Cost Account Function

In this section, we describe the AutoAccounting functions that are related to labor distribution and interface to Oracle General Ledger.

When you run the **PRC: Distribute Labor Costs** process, Oracle Projects calculates labor cost amounts based upon employee labor cost rates and compensation rules. After calculating labor costs, Oracle Projects uses the Labor Cost Account transactions to debit an expense account for raw labor costs.

The Labor Cost Account function consists of the following transactions:

- Indirect Private Labor
- Indirect Public Labor
- Private Billable Labor
- Private Non-Billable Labor
- Public Billable Labor
- Public Non-Billable Labor
- All Labor
- Capital, All
- Contract, All
- Indirect, All
- Capital, Private, Capital
- Capital, Private, non-Capital
- Capital, Public, Capital
- Capital, Public, non-Capital

The choice of transaction depends upon whether the labor cost corresponds to a public sector or private sector project, a billable or non-billable labor item, and whether it is direct or indirect labor. If your business does not distinguish between specific types of labor costs, you can enable the All Labor transaction.

Fremont tracks its labor costs by company and cost center. Each company and cost center has its own set of labor accounts for private labor costs, public labor costs, and other labor-related costs.

Fremont Corporation uses 12 expense accounts to record raw labor costs:

- Private, Billable Labor Cost (5100)
- Public, Billable Labor Cost (5101)
- Private, Non-Billable Labor Cost (5102)
- Public, Non-Billable Labor Cost (5103)
- Marketing Labor Cost (5150)
- Government Marketing Labor Cost (5151)
- Research & Development Labor Cost (5152)
- Administration Labor Cost (5153)
- Bid & Proposal Labor Cost (5154)
- Holiday Time (5170)
- Sick Time (5171)
- Vacation Time (5172)
- Overtime Labor Cost (5173)

(Refer to Fremont Corporation Set of Books: page 17 – 28 for a complete list of the Fremont Corporation account numbers.)

For contract and indirect labor costs, Fremont's accounting department charges labor costs to the company and cost center for which an employee works. Fremont charges overhead costs to the project-managing organization.

Since Fremont distinguishes between public and private; billable and non-billable; and between contract and indirect labor costs, it enables the six very specific Labor Cost Account transactions rather than enabling only the general All Labor transaction.

Since Fremont's Accounting Flexfield includes a Company segment and a Cost Center segment, one of the first steps to implement the Labor Cost Account function is to specify how to associate specific organizations with specific companies and cost centers. Since each organization is part of a particular company, and each organization has its own cost center, determining company codes and cost centers is not very complex.

Recall that Fremont is composed of four business units: Administration, Fremont Engineering, Fremont Construction, and Fremont Services. Each of these business units is considered a company and has a distinct company code in the Accounting Flexfield. Administration is company 01, Fremont Engineering is company 02, Fremont Construction is company 03, and Fremont Services is company 04.

For both public and private contract labor, Fremont charges labor costs to the company and cost center corresponding to the organization of the employee who performed the labor.

For indirect labor on privately funded projects, such as general administration, corporate marketing, or R&D, Fremont Corporation charges labor costs to specific labor accounts different from the accounts for ordinary project-driven labor. Similarly, Fremont charges holiday time, sick time, and vacation time to other indirect labor accounts.

Fremont uses service types to distinguish different kinds of indirect, private labor costs. Fremont can create a lookup set that maps service types to the appropriate expense account.

To implement the Labor Cost Account function, Fremont’s implementation team defines three lookup sets:

- One lookup set to map organizations to companies
- One lookup set to map organizations to cost centers
- One lookup set to map service types to each
Fremont’s six expense accounts for indirect labor

Fremont defines eight rules to implement the Labor Cost Account function:

- One rule supplies the appropriate value for the Company segment of Fremont’s Accounting Flexfield; Fremont uses a lookup set to define this rule
- One rule supplies the appropriate value for the Cost Center segment; Fremont uses a lookup set to define this rule
- Six rules supply the appropriate account code for the Account segment; the indirect, private labor rule uses a lookup set, and the other five use constant values.

Define a Lookup Set:

<i>Name</i>	Organization to Company
<i>Description</i>	Map organization to the appropriate company code

Segment Value Lookups

<i>Intermediate Value (Organization)</i>	<i>Segment Value (Company Code)</i>
Administration	01
Executive Office	01

Fremont Corporation	01
Human Resources	01
Finance	01
Information Services	01
Fremont Engineering	02
Electrical	02
Structural	02
Mechanical	02
Environmental	02
Fremont Construction	03
West	03
Midwest	03
East	03
South	03
International	03
Fremont Services	04
Data Systems	04
Risk Analysis	04

Define a Lookup Set:

Name	Organization to Cost Center
Description	Map organization to the appropriate cost center code

Segment Value Lookups

<i>Intermediate Value (Organization)</i>	<i>Segment Value (Cost Center Code)</i>
Fremont Corporation	000
Administration	100
Executive Office	101
Human Resources	102
Finance	103
Information Services	104
Fremont Engineering	200

Electrical	201
Structural	202
Mechanical	203
Environmental	204
Fremont Construction	300
West	301
Midwest	302
East	303
South	304
International	305
Fremont Services	400
Data Systems	401
Risk Analysis	402

Define a Lookup Set:

Name	Indirect Labor Cost
Description	Map the service type for labor on indirect projects to indirect cost accounts

Segment Value Lookups

<i>Intermediate Value (Service Type)</i>	<i>Segment Value (Account Code)</i>
Marketing	5150
R & D	5152
Administration	5153
B & P	5154
Holiday	5170
Sick	5171
Vacation	5172
Overtime	5173

Define a Rule to Determine Company Segment Value:

Name	Employee Company
Description	Map an employee's organization to a company

Intermediate Value Source	Parameter
Parameter Name	Expenditure Organization
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Company

Define a Rule to Determine Cost Center Segment Value:

Name	Employee Cost Center
Description	Map an employee's organization to a cost center
Intermediate Value Source	Parameter
Parameter Name	Expenditure Organization
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Cost Center

Define a Rule to Determine Account Segment Value: (Indirect Private Labor)

Name	Indirect Private Labor
Description	Indirect private labor cost account
Intermediate Value Source	Parameter
Parameter Name	Task Service Type
Segment Value Source	Segment Value Lookup Set
Lookup Set	Indirect Labor Cost

Define a Rule to Determine Account Segment Value: (Indirect Public Labor)

Name	Government Marketing Labor
Description	Government marketing labor cost account
Intermediate Value Source	Constant
Constant	5151
Segment Value Source	Intermediate Value

Define a Rule to Determine Account Segment Value: (Private Billable Labor)

Name	Private, Billable Labor
Description	Private, Billable labor cost account
Intermediate Value Source	Constant
Constant	5100
Segment Value Source	Intermediate Value

Define a Rule to Determine Account Segment Value: (Private Non–Billable Labor)

Name	Private, Non–Billable Labor
Description	Private, Non–Billable labor cost account
Intermediate Value Source	Constant
Constant	5102
Segment Value Source	Intermediate Value

Define a Rule to Determine Account Segment Value: (Public Billable Labor)

Name	Public, Billable Labor
Description	Public, Billable labor cost account
Intermediate Value Source	Constant
Constant	5101
Segment Value Source	Intermediate Value

Define a Rule to Determine Account Segment Value: (Public Non–Billable Labor)

Name	Public, Non–Billable Labor
Description	Public, Non–Billable labor cost account
Intermediate Value Source	Constant
Constant	5103
Segment Value Source	Intermediate Value

Enable the Indirect Private Labor Transaction and Assign Rules:

Function Name:	Labor Cost Account

Transaction Name: Indirect, Private Labor

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Indirect Private Labor

Enable the Indirect Public Labor Transaction and Assign Rules:

Function Name: Labor Cost Account

Transaction Name: Indirect, Public Labor

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Government Marketing Labor

Enable the Private Billable Labor Transaction and Assign Rules:

Function Name: Labor Cost Account

Transaction Name: Private, Billable Labor

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Private, Billable Labor

Enable the Private Non-Billable Labor Transaction and Assign Rules:

Function Name: Labor Cost Account

Transaction Name: Private, Non-Billable Labor

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Private, Non-Billable Labor

Enable the Public Billable Labor Transaction and Assign Rules:

Function Name: Labor Cost Account

Transaction Name: Public Billable Labor

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Public, Billable Labor

Enable the Public Non-Billable Labor Transaction and Assign Rules:

Function Name: Labor Cost Account

Transaction Name: Public Non-Billable Labor

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Public, Non-Billable Labor

Labor Cost Clearing Account Function

When you run the **PRC: Interface Labor Costs to General Ledger** process, Oracle Projects credits a payroll clearing liability account to balance the labor expense account it debits when you run the **PRC: Distribute Labor Costs** process. The process then transfers both the liability credits and the expense debits to the Oracle General Ledger interface tables so you can post them to the general ledger.

The Labor Cost Clearing Account function consists of the following transaction:

- Clearing Account

The Clearing Account transaction determines which account AutoAccounting credits for payroll liabilities.

Fremont Corporation uses one payroll clearing account for each division of the corporation. For example, the Structural group does not have its own payroll clearing account; payroll liabilities for the Electrical, Structural, Mechanical, and Environmental organizations are all credited to the Fremont Engineering division's payroll clearing account 02-200-2200. That is, labor costs are cleared to the cost center associated with the division to which an employee belongs.

Fremont uses one liability account to record payroll liability:

- Payroll Clearing (2200)

To implement the Labor Cost Clearing Account function, Fremont defines two rules:

- One rule to find the division cost center of an employee's owning organization
- One rule to determine the liability account

Fremont defines a lookup set to map organizations to the appropriate division cost center. Fremont uses the lookup set to define a rule to supply a value for the Cost Center segment of its Accounting Flexfield.

Fremont uses an existing rule to supply a value for the Company segment.

Define a Lookup Set:

Name	Org to Division Cost Center
Description	Map organization to the cost center of the division to which it is subordinate

Segment Value Lookups

<i>Intermediate Value (Organization)</i>	<i>Segment Value (Cost Center Code)</i>
Fremont Corporation	100
Administration	100

Executive Office	100
Human Resources	100
Finance	100
Information Services	100
Fremont Engineering	200
Electrical	200
Structural	200
Mechanical	200
Environmental	200
Fremont Construction	300
West	300
Midwest	300
East	300
South	300
International	300
Fremont Services	400
Data Systems	400
Risk Analysis	400

Define a Rule to Determine Cost Center Segment Value:

<i>Name</i>	Division Cost Center
<i>Description</i>	Cost center of an organization's division
<i>Intermediate Value Source</i>	Parameter
<i>Parameter Name</i>	Expenditure Organization
<i>Segment Value Source</i>	Segment Value Lookup Set
<i>Lookup Set</i>	Org to Division Cost Center

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Payroll Clearing
<i>Description</i>	Payroll clearing account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	2200

<i>Segment Value Source</i>	Intermediate Value	
Enable the Clearing Account Transaction and Assign Rules:		
<i>Function Name:</i>	Labor Cost Clearing Account	
<i>Transaction Name:</i>	Clearing Account	
<u>Segment Rule Pairings</u>		
<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Division Cost Center
2	Account	Payroll Clearing



Accounting for Burdened Cost

Total Burdened Cost
Debit/Credit

In this section, we describe the AutoAccounting functions that are related to burden cost distribution and interface to Oracle General Ledger.

When you run the **PRC: Distribute Total Burdened Cost** process, Oracle Projects creates two burdened cost distribution lines for the total burdened cost. One distribution line holds the burden cost debit and the other distribution line holds the burden cost credit. Oracle Projects creates these two distributions for all expenditure items charged to projects which are defined to burden costs.

Set up the Total Burdened Cost functions only if you want to account for total burdened cost for burdened cost accounting.

The Total Burden Costs Debit/Credit function consists of the following functions: **Total Burdened Cost Debit** and **Total Burdened Cost Credit**. Each of these functions consist of the following transactions:

- All Burdened
- Capital, All
- Capital, Private, Capital
- Capital, Private, Non-Capital
- Capital, Public, Capital
- Capital, Public, Non-Capital
- Contract, All

- Indirect Private Burdened
- Indirect Public Burdened
- Indirect, All
- Private Billable burdened
- Private Non-Billable Burdened
- Public Billable Burdened
- Public Non-Billable Burdened

If you want Oracle Projects to calculate burdened labor costs, you need to implement the following two transactions for the Labor Cost Account function:

- Burdened Cost Credit
- Burdened Cost Debit

Fremont Corporation uses one expense account and one asset account to record burdened cost:

- Transfer Out to Inventory (5199)
- Inventory (1200)

Fremont defines one rule to supply the Transfer Out to Inventory account code for the Total Burdened Cost Credit transaction; this rule reverses the fully burdened cost from the employee's owning organization.

Because Fremont credits the Transfer Out to Inventory account of the employee's owning organization, Fremont can use existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield for the Total Burdened Cost Credit transaction.

Fremont defines one rule to supply the Inventory account code for the Total Burdened Cost Debit transaction; this rule debits an asset account of the project-managing organization.

Because Fremont debits the Inventory account of the project-managing organization, Fremont needs to define two rules to supply values for the Company and Cost Center segments of its Accounting Flexfield for the Total Burdened Cost Debit transaction. (Fremont uses these two rules nearly as frequently as it uses the Employee Company and Employee Cost Center rules.)

Define a Rule to Determine Company Segment Value:

Name

Project Company

Description	Map the project-managing organization to a company
Intermediate Value Source	Parameter
Parameter Name	Project Organization
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Company

Define a Rule to Determine Cost Center Segment Value:

Name	Project Cost Center
Description	Map the project-managing organization to a cost center
Intermediate Value Source	Parameter
Parameter Name	Project Organization
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Cost Center

Define a Rule to Determine Account Segment Value:

Name	Transfer Out to Inventory
Description	Expense account used to reverse burden labor cost from the employee's owning organization.
Intermediate Value Source	Constant
Constant	5199
Segment Value Source	Intermediate Value

Define a Rule to Determine Account Segment Value:

Name	Inventory
Description	Inventory asset account records burdened labor cost incurred on a project
Intermediate Value Source	Constant
Constant	1200
Segment Value Source	Intermediate Value

Enable the Burdened Cost Credit Transaction and Assign Rules:

Function Name: Total Burdened Cost Credit
Transaction Name: All Burdened

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Transfer Out to Inventory

Enable the Burdened Cost Debit Transaction and Assign Rules:

Function Name: Total Burdened Cost Debit
Transaction Name: All Burdened

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Inventory

Accounting for Labor Revenue

In this section, we describe the AutoAccounting function related to labor revenue. We also include a description of how Fremont Corporation implements the function.

Oracle Projects uses the Labor Revenue Account function to calculate revenue you earn for labor items. The resulting labor revenue is generally awarded to either a project-managing organization, or an employee's owning organization; this labor revenue does not include borrowed and lent labor revenue.

Fremont Corporation always awards labor revenue to the employee's owning organization even if the employee worked on a project owned by a different organization.

Fremont uses revenue credited to the project-managing organization for reporting purposes only.

Labor Revenue Account Function

When you run the **PRC: Generate Draft Revenue** process, Oracle Projects uses the Labor Revenue Account transactions to credit a revenue account for labor items.

The Labor Revenue Account function consists of the following transactions:

- Private Labor Revenue
- Public Labor Revenue
- All Labor Revenue

Fremont awards labor revenue to the employee's owning organization, and, when applicable, awards labor revenue to the project-managing organization using borrowed and lent revenue accounts.

Fremont enables the Private Labor Revenue and Public Labor Revenue transactions to distinguish revenue earned between private and public projects.

Fremont Corporation uses two accounts to record labor revenue:

- Private Professional Fee Revenue (4100)
- Public Professional Fee Revenue (4101)

To implement the Labor Revenue Account function, Fremont defines two rules:

- One rule to determine the revenue account for private labor revenue
- One rule to determine the revenue account for public labor revenue

Fremont uses one rule in the Private Labor Revenue transaction and one rule in the Public Labor Revenue transaction.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield for both transactions.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Private Fee Revenue
<i>Description</i>	Private Professional Fee Revenue
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	4100
<i>Segment Value Source</i>	Intermediate Value

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Public Fee Revenue
<i>Description</i>	Public Professional Fee Revenue
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	4101
<i>Segment Value Source</i>	Intermediate Value

Enable the Private Labor Revenue Transaction and Assign Rules:

<i>Function Name:</i>	Labor Revenue Account
<i>Transaction Name:</i>	Private Labor Revenue

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Private Fee Revenue

Enable the Public Labor Revenue Transaction and Assign Rules:

Function Name: Labor Revenue Account
Transaction Name: Public Labor Revenue

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Employee Company
1	Cost Center	Employee Cost Center
2	Account	Public Fee Revenue

Accounting for Expense Report Costs

Expense Report Cost Account Function

When you run the **PRC: Distribute Expense Reports Costs** process, Oracle Projects calculates and distributes costs originating from expense reports, and uses the Expense Report Cost Account transactions to determine which expense account to debit for expense report costs.

The Expense Report Cost Account function consists of the following transactions:

- All Expenses
- Capital, All
- Capital, Private, Capital
- Capital, Private, Non–Capital,
- Capital, Public, Capital
- Capital, Public, Non–Capital
- Contract, All
- Indirect Private Expenses
- Indirect Public Expenses
- Indirect, All
- Private, Billable Expenses
- Private, Non–Billable Expenses
- Public, Billable Expenses
- Public, Non–Billable Expenses

Fremont posts expense report costs to the project–managing organization’s cost center, and relies upon expenditure type to determine which account to debit.

Although the Expense Report Cost Account function consists of transactions that distinguish between public and private; and between billable and non–billable expenses, Fremont does not differentiate between any of these characteristics in its chart of accounts. Therefore, rather than enabling the six very specific transactions, Fremont’s accounting department enables just the general All Expenses transaction.

Fremont Corporation uses three accounts to record expense report costs:

- Travel & Lodging Expense (5200)
- Meals Expense (5201)
- Miscellaneous Expense (5202)

To implement the Expense Report Cost Account function, Fremont defines a lookup set to map expenditure types to each of its three expense accounts. Fremont uses the lookup set to define a rule to supply an account code for the Account segment of its Accounting Flexfield.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Lookup Set:

Name	Exp Type to Expense Account
Description	Map the expenditure type for expense report items to the appropriate expense account

Segment Value Lookups

<i>Intermediate Value (Expenditure Type)</i>	<i>Segment Value (Account Code)</i>
Air Travel	5200
Automobile Rental	5200
Personal Auto Use	5200
Meals	5201
Entertainment	5202
Other Expenses	5202

Define a Rule to Determine Account Segment Value:

Name	Expense Report Cost
Description	Determine expense report cost account based on the expenditure type
Intermediate Value Source	Parameter
Parameter Name	Expenditure Type
Segment Value Source	Segment Value Lookup Set
Lookup Set	Exp Type to Expense Account

Enable The All Expenses Transaction and Assign Rules:

Function Name: Expense Report Cost Account

Transaction Name: All Expenses

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Expense Report Cost

Expense Report Liability Account Function

When you run the **PRC: Interface Expense Reports to Payables** process, Oracle Projects interfaces expense report costs to the Oracle Payables Invoice Import feature, and uses a transaction to credit an accounts payable liability account.

The Expense Report Liability Account function consists of the following transaction:

- AP Liability Account

The Expense Report Liability Account function is very similar to the Labor Cost Clearing Account function. Instead of determining a payroll clearing liability account, the Expense Report Liability Account function determines an accounts payable liability account.

Fremont Corporation uses one account to record accounts payable to employees:

- Accounts Payable, Employee (2400)

To implement the Expense Report Liability Account function, Fremont defines a rule to supply an account code for the Account segment of its Accounting Flexfield. This rule always supplies account 2400, the only accounts payable liability account in Fremont's chart of accounts.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

Name AP Employee Liability

Description	Determine the accounts payable liability account	
Intermediate Value Source	Constant	
Constant	2400	
Segment Value Source	Intermediate Value	
Enable the AP Liability Account Transaction and Assign Rules:		
Function Name:	Expense Report Liability Account	
Transaction Name:	AP Liability Account	
<u>Segment Rule Pairings</u>		
Number	Segment Name	Rule Name
0	Company	Employee Company
1	Cost Center	Division Cost Center
2	Account	AP Employee Liability

Accounting for Expense Report Revenue

Expense Report Revenue Account Function

When you run the **PRC: Generate Draft Revenue** process, Oracle Projects uses the Expense Report Revenue Account transactions to credit a revenue account for expense report items.

The Expense Report Revenue Account function consists of the following transactions:

- Private Expense Report Revenue
- Public Expense Report Revenue
- All Expense Report Revenue

Expense Report revenue is posted to the project-managing organization's Expense Report Revenue account. Since Fremont does not differentiate between public and private projects when it calculates expense report revenue, it enables only the All Expense Report Revenue transaction.

Fremont Corporation uses one revenue account to record expense report revenue:

- Expense Report Revenue (4300)

To implement the Expense Report Revenue Account function, Fremont defines a rule to supply the Expense Report Revenue account code for the Account segment of its Accounting Flexfield. The Expense Report Revenue account is always 4300 since Fremont's chart of accounts uses only one account.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Expense Report Revenue
<i>Description</i>	Determine the expense report revenue account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	4300
<i>Segment Value Source</i>	Intermediate Value

Enable the All Expense Report Revenue Transaction and Assign Rules:

<i>Function Name:</i>	Expense Report Revenue Account
<i>Transaction Name:</i>	All Expense Report Revenue

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Expense Report Revenue

Accounting for Usage Costs

Usage Cost Account Function

When you run the **PRC: Distribute Usage and Miscellaneous Costs** process, Oracle Projects uses the Usage Cost Account transactions to debit an expense account for raw usages costs.

The Usage Cost Account function consists of the following transactions:

- All Usages
- Capital, All
- Capital, Private, Capital
- Capital, Private, Non–Capital
- Capital, Public, Capital
- Capital, Public, Non–Capital
- Contract, All
- Indirect, All
- Indirect, Private Usages
- Indirect, Public Usages
- Private, Billable Usages
- Private, Non–Billable Usages
- Public, Billable Usages
- Public, Non–Billable Usages

Since Fremont's chart of accounts accounts for all usage costs in the same way, regardless of the type of project, Fremont's accounting department enables only the All Usages transaction.

Usages costs are posted to the organization that owns the non–labor resource; expenditure type determines which expense account AutoAccounting debits.

Fremont Corporation charges usages costs to one of three expense accounts, depending upon the expenditure type:

- Computer Expense (5400)
- Vehicle and Equipment Expense (5401)
- Other Asset Expense (5402)

To implement the Usage Cost Account function, Fremont defines three rules:

- One rule to find the company of the resource organization
- One rule to find the cost center of the resource organization
- One rule to determine the expense account based on expenditure type

Fremont defines a lookup set to map expenditure types to the appropriate expense account. Fremont uses the lookup set to define the expense account rule. Fremont uses existing lookup sets to define the other two rules.

Define a Lookup Set:

<i>Name</i>	Usage to Expense
<i>Description</i>	Map the expenditure type for a usage item to the appropriate expense account

Segment Value Lookups

<i>Intermediate Value (Expenditure Type)</i>	<i>Segment Value (Account Code)</i>
Computer Services	5400
Vehicle	5401
Field Equipment	5401
Other Asset	5402

Define a Rule to Determine Company Segment Value:

<i>Name</i>	Resource Company
<i>Description</i>	Find the company of the non-labor resource owning organization
<i>Intermediate Value Source</i>	Parameter
<i>Parameter Name</i>	Non-Labor Resource Org
<i>Segment Value Source</i>	Segment Value Lookup Set
<i>Lookup Set</i>	Organization to Company

Define a Rule to Determine Cost Center Segment Value:

<i>Name</i>	Resource Cost Center

Description	Find the cost center of the non-labor resource owning organization
Intermediate Value Source	Parameter
Parameter Name	Non-Labor Resource Org.
Segment Value Source	Segment Value Lookup Set
Lookup Set	Organization to Cost Center

Define a Rule to Determine Account Segment Value:

Name	Usage Costs
Description	Map usage items to cost accounts using the usage expenditure type
Intermediate Value Source	Parameter
Parameter Name	Expenditure Type
Segment Value Source	Segment Value Lookup Set
Lookup Set	Usage to Expense

Enable the All Usages Transaction and Assign Rules:

Function Name:	Usage Cost Account
Transaction Name:	All Usages

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Resource Company
1	Cost Center	Resource Cost Center
2	Account	Usage Costs

Usage Cost Clearing Account Function

When you run the **PRC: Interface Usage and Miscellaneous Costs to General Ledger** process, Oracle Projects credits an asset usages liability account to balance the usages expense account it debits when you run the **PRC: Distribute Usage and Miscellaneous Costs** process. The process then transfers both the liability credits and the expense debits to the Oracle General Ledger interface tables so you can post them to the general ledger.

The Usage Cost Clearing Account function consists of the following transactions:

- Clearing Account

Oracle Projects uses the Clearing Account transaction to determine which account to credit for asset usage liabilities.

Fremont Corporation uses one liability account to record asset usage liabilities:

- Asset Usage Clearing (2300)

To implement the Usage Cost Clearing Account function, Fremont defines a rule to supply an account code for the Account segment of its Accounting Flexfield. The asset usage liability account is always 2300 since Fremont uses only one account in its chart of accounts.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

Name	Usage Clearing
Description	Usage clearing liability account
Intermediate Value Source	Constant
Constant	2300
Segment Value Source	Intermediate Value

Enable the Clearing Account Transaction and Assign Rules:

Function Name:	Usage Cost Clearing Account
Transaction Name:	Clearing Account

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Resource Company
1	Cost Center	Resource Cost Center
2	Account	Usage Clearing

Accounting for Usage Revenue

Generating usage revenue is very similar to generating labor revenue. Oracle Projects generates usage revenue and, if you like, borrowed and lent usage revenue.

Oracle Projects uses the Usage Revenue Account function to calculate revenue you earn for labor items. The resulting usage revenue is awarded to either a project-managing organization, or a non-labor resource's owning organization; this usage revenue does not include borrowed and lent labor revenue.

The Usage Revenue Borrowed Account and Usage Revenue Lent Account functions allow you to record revenue in both a project-managing organization and in a non-labor resource's owning organization (when these two organizations are different).

The organization to which you award revenue (using the Usage Revenue Account function) becomes the *lending* organization; Oracle Projects uses the Usage Revenue Lent Account transactions to debit a revenue account of the lending organization.

The organization to which you do not award revenue (using the Usage Revenue Account function) becomes the *borrowing* organization; Oracle Projects uses the usage Revenue Borrowed Account transactions to credit a revenue account of the borrowing organization

When you run the **PRC: Generate Draft Revenue** process, Oracle Projects compares the project-managing organization and the non-labor resource's owning organization to determine whether to use the Usage Revenue Borrowed Account and Usage Revenue Lent Account functions when it calculates usage revenue you earn.

If the project-managing organization is the same as the non-labor resource's owning organization, Oracle Projects uses only the Usage Revenue Account function to credit a revenue account; the Usage Revenue Borrowed Account and Usage Revenue Lent Account functions are not necessary.

If the project-managing organization is not the same as the non-labor resource's owning organization, Oracle Projects first ensures that you have enabled the Usage Revenue Borrowed Account and Usage Revenue Lent Account functions, and then uses them to create revenue credit and debit entries for borrowed and lent usage revenue. The borrowed and lent entries are in addition to the usage revenue credits Oracle Projects creates using the Usage Revenue Account transactions. If you do not want to record borrowed and lent usage revenue entries, do not implement the Usage Revenue Borrowed Account and Usage Revenue Lent Account functions.

The Usage Revenue Borrowed Account and Usage Revenue Lent Account functions are distinct from the Usage Revenue Account function to allow you to separate borrowed and lent usage revenue into as many different accounts as you separate usage revenue.

Usage Revenue Account Function When you run the **PRC: Generate Draft Revenue** process, Oracle Projects uses the Usage Revenue Account transactions to credit a revenue account for usage items.

The Usage Revenue Account function consists of the following transactions:

- Private Usage Revenue
- Public Usage Revenue
- All Usage Revenue

If your business does not distinguish usage revenue earned between private and public projects, you can enable the All Usage Revenue transaction.

Fremont always awards usage revenue to the resource–owning organization, and awards usage revenue to the project–managing organization using borrowed and lent revenue accounts. Since Fremont does not distinguish revenue earned between private and public projects, it enables just the All Usage Revenue transaction.

Fremont Corporation uses three revenue accounts to record usage revenue, depending upon the expenditure type:

- Computer Fee Revenue (4200)
- Vehicle and Equipment Revenue (4201)
- Misc. Asset Revenue (4202)

To implement the Usage Revenue Account function, Fremont defines a rule to determine the revenue account for usage revenue.

Fremont defines a lookup set to map expenditure types to the appropriate revenue account. Fremont uses the lookup set to define the revenue account rule.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Lookup Set:

<i>Name</i>	Usage to Revenue
<i>Description</i>	Map the expenditure type for usage items to the appropriate revenue account

Segment Value Lookups

<i>Intermediate Value (Expenditure Type)</i>	<i>Segment Value (Account Code)</i>

Computer Services	4200
Vehicle	4201
Field Equipment	4201
Other Asset	4202

Define a Rule to Determine Account Segment Value:

Name	Usage Revenue
Description	Map usage items to revenue accounts using the usage expenditure type
Intermediate Value Source	Parameter
Parameter Name	Expenditure Type
Segment Value Source	Segment Value Lookup Set
Lookup Set	Usage to Revenue

Enable the All Usage Revenue Transaction and Assign Rules:

Function Name:	Usage Revenue Account
Transaction Name:	All Usage Revenue

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Resource Company
1	Cost Center	Resource Cost Center
2	Account	Usage Revenue

Accounting for Supplier Invoice Adjustment Costs

When you enter project-related supplier invoices in Oracle Payables, the Oracle Payables Invoices or detail window invokes the Account Generator in real time. The Account Generator derives the Accounting Flexfield values based on project information in much the same way that AutoAccounting works in Oracle Projects processes. See: Setting Up the Account Generator for Oracle Projects: page 17 – 306.

Oracle Projects then creates an expenditure item for each project-related supplier invoice distribution line in Oracle Payables.

You can adjust the supplier invoice expenditure items in Oracle Projects to transfer or split the items. Oracle Projects processes these supplier invoice adjustments using the Supplier Invoice Cost Account AutoAccounting function.



Attention: When you set up your rules to account for supplier invoice costs, ensure that the assignments and rules in AutoAccounting and Account Generator derive the same values.

Supplier Invoice Cost Account Function

Oracle Projects uses the Supplier Invoice Cost Account transactions to debit the appropriate expense account for supplier invoice adjustment costs.

The Distribute Supplier Costs function is called by the Distribute Supplier Invoice Adjustments program.

The Supplier Invoice Cost Account function consists of the following transactions:

- All Supplier Invoices
- Capital, All
- Capital, Private, Capital
- Capital, Private, Non-Capital
- Capital, Public, Capital, Capital, Public, Non-Capital
- Contract, All
- Indirect, All
- Indirect, Private Invoices
- Indirect, Public Invoices
- Private, Billable Invoices
- Private, Non-Billable Invoices
- Public, Billable Invoices
- Public, Non-Billable Invoices

Fremont posts supplier invoice costs to the project-managing organization's cost center; expenditure type determines which expense account AutoAccounting debits.

Fremont does not distinguish between supplier invoice expenditures for public/private, or capital, contract, or indirect projects, or for billable/non-billable expenditure items. Therefore, Fremont enables only the All Supplier Invoices transaction.

Fremont Corporation uses three expense accounts to record supplier invoice costs:

- Construction Subcontracting Expense (5600)
- Consulting Expense (5610)
- Miscellaneous Subcontract Expense (5620)
- Supplies (5630)

To implement the Supplier Invoice Cost Account function, Fremont defines a lookup set to map expenditure types to each of its three expense accounts. Fremont uses the lookup set to define a rule to supply an account code for the Account segment of its Accounting Flexfield.

Define a Lookup Set:

Name	Supplier Invoice Cost
Description	Map supplier invoice expenditure types to appropriate cost account

Segment Value Lookups

<i>Intermediate Value (Expenditure Type)</i>	<i>Segment Value (Account Code)</i>
Construction	5600
Consulting	5610
Other Invoice	5620
Supplies	5630

Define a Rule to Determine Account Segment Value:

Name	Supplier Invoice Costs
Description	Accounts Payable supplier invoice costs
Intermediate Value Source	Parameter

Parameter Name	Expenditure Type
Segment Value Source	Segment Value Lookup Set
Lookup Set	Supplier Invoice Cost

Enable the All Supplier Invoices Transaction and Assign Rules:

Function Name:	Supplier Invoice Cost Account
Transaction Name:	All Supplier Invoices

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Supplier Invoice Costs

Accounting for Supplier Invoices Revenue

Supplier Invoice Revenue Account Function

When you run the **PRC: Generate Draft Revenue** process, Oracle Projects uses the Supplier Invoice Revenue Account transactions to credit a revenue account for supplier invoice items.

The Supplier Invoice Revenue Account function consists of the following transactions:

- All Invoice Revenue
- Private Invoice Revenue
- Public Invoice Revenue

Fremont enables only the All Invoice Revenue transaction since it does not separate revenue earned between private and public projects.

Fremont Corporation uses one revenue account to record supplier invoice revenue:

- Subcontractor Revenue (4400)

To implement the Supplier Invoice Revenue Account function, Fremont defines a rule to supply the Subcontractor Revenue account code for the Account segment of its Accounting segment.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Accounting Segment Value:

<i>Name</i>	Subcontractor Revenue
<i>Description</i>	Subcontractor Revenue
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	4400
<i>Segment Value Source</i>	Intermediate Value

Enable the All Invoice Revenue Transaction and Assign Rules:

<i>Function Name:</i>	Supplier Invoice Revenue Account
<i>Transaction Name:</i>	All Invoice Revenue

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Subcontractor Revenue

Accounting for Event Revenue

Expenditure items are not the only source from which you earn revenue. You create events to write-on bonus revenue, or write-off uncollectible revenue. When you run the **PRC: Generate Draft Revenue** process, Oracle Projects credits a revenue account for event types with the Write-On, Manual or Automatic classifications, or debits an expense account for event types with the Write-Off classification. Although there are other event type classifications, they do not affect revenue.

Event Revenue Account Function

Depending upon the classification of an event type, Oracle Projects uses the Event Revenue Account transactions to calculate revenue credits for write-ons, or expense debits for write-offs.

The Event Revenue Account function consists of the following transactions:

- Revenue Write-Off Events
- Revenue Write-On Events

Fremont Corporation posts both write-offs and bonus revenue to the project-managing organization.

Fremont uses one expense account to record write-offs and one revenue account to record write-ons:

- Write-Offs (5500)
- Bonus Revenue (4500)

To implement the Event Revenue Account function, Fremont defines two rules:

- One rule to supply the Write-Offs account code for the Account segment of its Accounting Flexfield
- One rule to supply the Bonus Revenue account code for the Account segment of its Accounting Flexfield

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Write-Off
<i>Description</i>	Revenue write-off expense account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	5500
<i>Segment Value Source</i>	Intermediate Value

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Bonus
<i>Description</i>	Performance and other bonus revenue account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	4500
<i>Segment Value Source</i>	Intermediate Value

Enable the Write-Off Transaction and Assign Rules:

<i>Function Name:</i>	Event Revenue Account

Transaction Name: Revenue Write-Off Event

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Write-Off

Enable the Write-On Transaction and Assign Rules:

Function Name: Event Revenue Account

Transaction Name: Write-On

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Bonus

Accounting for Revenue and Invoices

Revenue and Invoice Accounts Function

You need to implement each Revenue and Invoice Accounts transaction to allow AutoAccounting to determine the appropriate asset, liability, and expense accounts. Consequently, this section is organized by transaction.

When you run the **PRC: Interface Revenue to General Ledger** process and then the **PRC: Interface Invoices to Receivables** process, Oracle Projects uses the Revenue and Invoice Accounts function to determine which accounts to use when it interfaces draft revenue and draft invoices.

The Revenue and Invoice Accounts function consists of the following transactions:

- Unbilled Receivable Account
- Accounts Receivable
- Invoice Rounding Account
- Unearned Revenue Account

- Invoice Write-Off Account

Fremont Corporation assigns draft revenue and invoices to the project-managing organization when it interfaces revenue or invoices. Since each organization at Fremont has four separate accounts for unbilled receivables, accounts receivable, unearned revenue, and write-offs, implementing each Revenue and Invoice Accounts transaction is straightforward.

Unbilled Receivable Account transaction

When you run the **PRC: Interface Revenue to General Ledger** process, Oracle Projects may debit an asset account (usually an unbilled receivables account). This transaction balances the various revenue accounts that Oracle Projects credits when you run the **PRC: Generate Draft Revenue** process.

Fremont corporation uses one asset account to record unbilled receivables:

- Unbilled Receivables (1101)

To implement the Unbilled Receivables transaction, Fremont defines a rule to supply the Unbilled Receivables account code for the Account segment of its Accounting Flexfield.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Unbilled Receivables
<i>Description</i>	Unbilled receivables asset account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	1101
<i>Segment Value Source</i>	Intermediate Value

Enable the Unbilled Receivables Transaction and Assign Rules:

<i>Function Name:</i>	Revenue and Invoice Accounts
<i>Transaction Name:</i>	Unbilled Receivable Account

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Unbilled Receivables

Accounts Receivable transaction

When you run the **PRC: Interface Invoices to Receivables** process, Oracle Projects may debit an asset account (usually an accounts receivable account). This transaction is balanced by a credit to the unbilled receivables asset account or the unearned revenue liability account, based on the revenue and invoice balances of the project.

Fremont Corporation uses one asset account to record accounts receivable:

- Accounts Receivable (1100)

To implement the Accounts Receivable transaction, Fremont defines a rule to supply the Accounts Receivable account code for the Account segment of its Accounting Flexfield.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Accounts Receivable
<i>Description</i>	Accounts receivable asset account
<i>Intermediate Value Source</i>	Constant
<i>Constant</i>	1100
<i>Segment Value Source</i>	Intermediate Value

Enable the Accounts Receivable Transaction and Assign Rules:

<i>Function Name:</i>	Revenue and Invoice Accounts
<i>Transaction Name:</i>	Accounts Receivable

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Accounts Receivable

Invoice Rounding Account transaction

After you interface Oracle Projects invoices to Receivables, Oracle Receivables converts invoice currency amounts to the functional currency (if the invoice currency is different from the functional currency). The process of rounding to the nearest currency unit may produce a different amount from the original functional currency amount in Oracle Projects.

To ensure that invoice amounts in Receivables and Oracle General Ledger match those in Oracle Projects, Oracle Projects creates an extra distribution line containing the difference (the rounding amount). When Projects interfaces invoices to Receivables, the distribution line is sent to Receivables, to be posted to a Rounding Account in General Ledger.

For a detailed explanation of Invoice Rounding, see: Invoice Rounding: page 17 – 141.

You must set up an Invoice Rounding Account, even if you do not plan to process invoices in currencies other than the functional currency. If you do not, the PRC: Generate Draft Invoices process will issue an error and will not run.

Fremont Corporation uses one liability account to store rounding amounts:

- Invoice Rounding Account (2110)

To implement the Rounding Account transaction, Fremont defines a rule to supply the Rounding Account code for the Account segment of its Accounting Flexfield.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

<i>Name</i>	Accounts Receivable

Description	Invoice rounding account
Intermediate Value Source	Constant
Constant	2110
Segment Value Source	Intermediate Value

Enable the Accounts Receivable Transaction and Assign Rules:

Function Name:	Revenue and Invoice Accounts
Transaction Name:	Invoice Rounding Account

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Accounts Receivable

Unearned Revenue Account transaction

When you bill a client for an invoice amount that is greater than the revenue accrued for the project, Oracle Projects uses the Unearned Revenue Account transaction.

When you run the **PRC: Interface Invoices to Receivables** process, Oracle Projects may credit a liability account (usually an unearned revenue account). This transaction balances the receivables asset account that Oracle Projects credits.

Fremont Corporation uses one liability account to record unearned revenue:

- Unearned Revenue (2100)

To implement the Unearned Revenue transaction, Fremont defines a rule to supply the Unearned Revenue account code for the Account segment of its Accounting Flexfield.

Fremont uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Define a Rule to Determine Account Segment Value:

Name	Unearned Revenue

Description	Unearned revenue liability account
Intermediate Value Source	Constant
Constant	2100
Segment Value Source	Intermediate Value

Enable the Unearned Revenue Transaction and Assign Rules:

Function Name:	Revenue and Invoice Accounts
Transaction Name:	Unearned Revenue Account

Segment Rule Pairings

Number	Segment Name	Rule Name
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Unearned Revenue

Invoice Write-Off Account transaction

When you write-off an uncollectible invoice, Oracle Projects uses the Invoice Write-Off Account transaction.

When you run the **PRC: Interface Invoices to Receivables** process, Oracle Projects may debit an expense account (usually a write-off account) and credits an asset account (usually an accounts receivable account).

Fremont Corporation uses one expense account to record invoice write-offs:

- Write-Offs (5500)

To implement the Write-Off transaction, Fremont uses an existing rule to supply the Write-Offs account code for the Account segment of its Accounting Flexfield.

Fremont also uses existing rules to supply values for the Company and Cost Center segments of its Accounting Flexfield.

Enable the Write-Off Transaction and Assign Rules:

Function Name:	Revenue and Invoice Accounts
Transaction Name:	Invoice Write-Off Account

Segment Rule Pairings

<i>Number</i>	<i>Segment Name</i>	<i>Rule Name</i>
0	Company	Project Company
1	Cost Center	Project Cost Center
2	Account	Write-Off

Using the Account Generator in Oracle Projects

When you enter project information in Purchasing and Payables, account generator processes create account code combinations for use in purchasing requisitions, purchase orders, and payables supplier invoices. This section:

- Lists the accounts created by the Purchasing account generators. See: *Generating Accounts for Oracle Purchasing*: page 17 – 302.
- Describes how to customize the account generator workflow processes used to integrate Oracle Projects with Payables. See: *Setting up the Account Generator Processes*: page 17 – 306.
- Provides information on assigning and deriving values. See: *Comparing AutoAccounting to the Workflow Account Generator*: page 17 – 327.

As you read this chapter, you will also want to refer to *Oracle Applications Flexfields Guide* and *Oracle Workflow Guide*.

Generating Accounts for Purchasing

Purchasing uses item types to generate account numbers for all requisitions and purchase orders, whether they are project-related or not. Purchasing provides a set of default account generator processes for the accounts it needs to build. You do not need to do anything within Oracle Projects to generate accounts for Purchasing.

The account generator workflows in Purchasing generate the following accounts:

- Purchase Order Charge Account
- Purchase Order Budget Account
- Purchase Order Variance Account
- Purchase Order Accrual Account
- Requisition Charge Account
- Requisition Budget Account
- Requisition Variance Account
- Requisition Accrual Account

Purchasing provides default account generator processes for these accounts. If you want to derive the accounts based on project information, you must change the default processes so that they use the

project information. For more information, see: Using the Account Generator, *Oracle Purchasing User's Guide*.

Using a Lookup Set for Oracle Purchasing Rules

If you want to use a lookup set for Oracle Purchasing rules, you must drag and drop the Lookup activity from Payables to the Purchasing Account Generator item type.

Generating Accounts for Payables

How charge accounts are derived for invoices and expense reports depends on whether you are entering an invoice or expense report that contains project and task information:

Application and Item	Method for Deriving the Charge Account
Payables invoices	Payables (Invoices window) calls the Project Supplier Invoice Account Generation workflow.
Self-Service Expenses and Payables expense reports	Self-Service Expenses (Enter Receipts window) or Payables (Invoices window) calls the Project Expense Report Account Generator workflow.

This section and the sections that follow describe how to use the account generation workflows to build account code combinations. You need:

- An account number for each set of books that uses a unique accounting flexfield structure
- An account generation process for each accounting flexfield structure and set of books

Upgrading from Release 10.7. In Release 10, several Oracle Applications products used FlexBuilder to derive account code combinations. In Release 11, FlexBuilder was replaced by the Account Generator. If you upgraded to this release from Release 10.7, and you used FlexBuilder in Release 10.7, you must set up Account Generator as part of your upgrade. To plan the upgrade, follow the Oracle Flexbuilder / Account Generator guidelines and tasks in *Upgrading Oracle Applications*.

Each Account Generator is an *item type* within Oracle Workflow. Oracle Projects comes with the following item types (workflows) and processes:

Item Type (Workflow)	Processes
Project Supplier Invoice Account Generation	Generate Default Account Generate Account Using FlexBuilder Rules Sample Process for Account Generation
Project Expense Report Account Generator	Default Account Generator for Expense Reports Sample Account Generator for Expense Reports

The Project Supplier Invoice Account Generation workflow generates accounts for supplier invoices.

The Project Expense Report Account Generator generates accounts for expense reports entered in Self-Service Expenses or the Invoices window in Payables.

The sample processes demonstrate how to use the item type to generate the account code combinations. See: Process: Sample Process for Account Generation: page 17 – 308 and Process: Sample Account Generator for Expense Reports: page 17 – 313.

Prerequisites

Before using an account generator process with a production database in Oracle Projects, you must:

1. Define your Accounting Flexfield structure for each set of books.
See: *Oracle Applications Flexfields Guide*.
2. Define the flexfield segment values and validation rules. See: *Oracle Applications Flexfields Guide*.
3. Back up the workflow before you start to work with it. To do so, copy the workflow to a local hard disk or networked server. Because you cannot rename the workflow, plan to modify the "original" process.

Do not save a backup workflow to the database. Workflows saved to the database overwrite the workflow of the same name in the database.

4. For each set of books, customize the default process.

To refer some sample customizations, see: Process: Sample Process for Account Generation: page 17 – 308, see: Process: Account Generator for Expense Reports: page 17 – 313 and see: *Oracle Workflow Guide*.

You can create all the components for workflow in the Oracle Workflow Builder except for the PL/SQL procedures called by the

function activities. See: Using AutoAccounting with Account Generator Processes: page 17 – 327

5. Test the customizations. See: Testing a Customized Process: page 17 – 320.
6. Choose the process for a flexfield structure, if necessary. See: Assigning a Process to a Flexfield Structure: page 17 – 322.
7. Set the Account Generator: Purge Runtime Data profile option. See: Setting the Profile Option: page 17 – 322.
8. Save the process in the Oracle Projects database.

Setting Up the Account Generator Processes

This section describes the processes and attributes of the workflows supplied with Oracle Projects. It also provides information about implementing and testing your workflows.

All the workflows and processes in this section generate account numbers for use with Payables.

Workflow: Project Supplier Invoice Account Generation

The Project Supplier Invoice Account Generation workflow (item type) contains these processes:

- Generate Account using FlexBuilder Rules
- Generate Default Account
- Sample Process for Account Generation

Process: Generate Account Using FlexBuilder Rules

Purpose This process generates accounts for payables invoices.

Workflow Project Supplier Invoice Account Generation

If you used FlexBuilder in a previous release to generate account combinations, this process replicates your FlexBuilder setup. You do not have to change any of your predefined FlexBuilder rules or customize the process. The process includes a function generated during your upgrade from Release 10.7 to Release 11i.

If you are upgrading from Release 10.7, follow the Oracle Flexbuilder / Account Generator guidelines and tasks in *Upgrading Oracle Applications*.

If you want to change your FlexBuilder rules after you upgrade, you must start with the Generate Default Account process to define your rules.

Process: Generate Default Account

Purpose This process generates accounts for payables invoices.

Workflow Project Supplier Invoice Account Generation

Back up the workflow before you start to work with it. To do so, copy the workflow to a local hard disk or networked server.

Because you cannot rename the workflow, plan to modify the "original" process. Do not save a backup workflow to the database. Workflows saved to the database overwrite the workflow of the same name in the database.

The Payables invoice entry windows call the Generate Default Account process for the invoice charge account. You must customize this process or create a new one, using the Oracle Workflow Builder. If you do not, the process returns an error message.

To customize the process, replace the dummy activity (node 2 in the diagram below) with your customized procedure for account generation. Do not delete a node or change the node order.

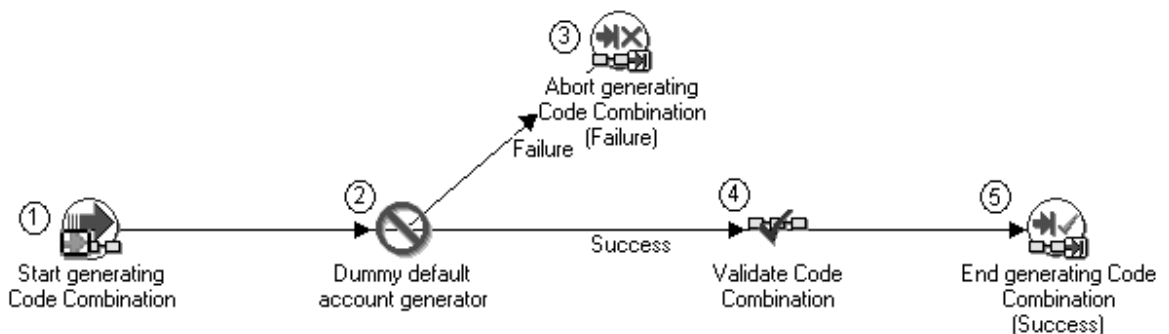
If you prefer to create a new process, copy the existing default process and change its internal name and display name. You can then modify the original default process and assign the process to the accounting flexfield structure. See: Assigning an Account Generator Process to an Accounting Flexfield Structure: page 17 – 322.

About the process attributes The workflow attributes (different from the node attributes) for the Project Supplier Invoice Account Generation workflow (item type) identify the supplier invoice for which the process is generating a charge account number. See: Process Attributes: page 17 – 316.

About the activity nodes The Generate default account process consists of five activity nodes. In Figure 17 – 10, the process activity nodes are numbered for reference in Table 17 – 28. The numbered circles are not part of the process.

The workflow illustration and the table show the Display Name view. To show the Display Name view in Workflow Builder, open the View menu, choose Show Label, and then choose Display Name in Designer.

Figure 17 – 10 Generate Default Account Process. Workflow: Project Supplier Invoice Account Generation



Number and Node	Description
1. Start Generating code combination	This standard activity node starts the process.
2. Dummy default account generator	In its original (shipped) configuration, this node returns an error message. You must replace this function with your customized procedure. The result is Success (the process branches to node 4) or Failure (the process branches to node 3).
3. Abort generating Code Combinations	This node ends the code combination process if the function in node 2 fails.
4. Validate Code Combination	This node contains the standard Flexfield function for validating a code combination. For this function to work, the attribute value <i>New code combinations</i> must be set to <i>True</i> .
5. End generating Code Combination	This standard activity node ends the process.

Table 17 – 28 Process: Generate Default Account. Workflow: Project Supplier Invoice Account Generation (Page 1 of 1)

Process: Sample Process for Account Generation

Purpose This sample process is an example only. It illustrates how to generate accounts for payables invoices.

Workflow Project Supplier Invoice Account Generation

You cannot use this sample process, even with modification, in your database. You must modify the default process.

The sample process shows how to use workflow functions and attributes to derive account code combinations. It also demonstrates several standard functions (Start, Compare Text, and Assign Value) that you can use to generate account segments.

The sample also illustrates the use of SQL procedures, AutoAccounting lookup sets, workflow attributes, and constants for Supplier Invoice Account Generation.

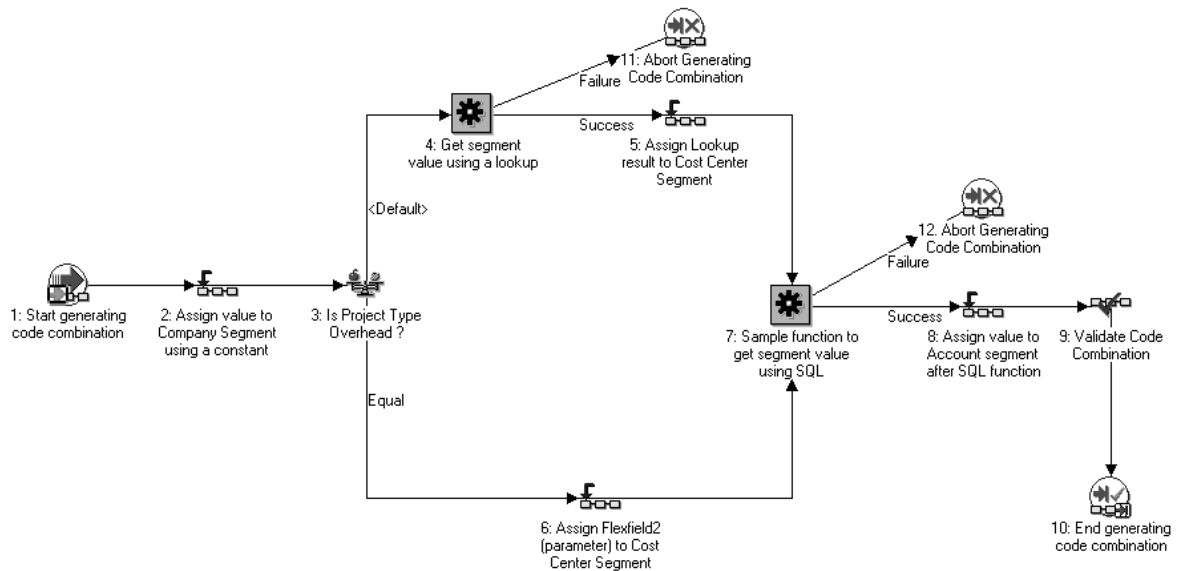
About the process attributes The workflow attributes (different from the node attributes) for the Project Supplier Invoice Account Generation workflow (item type) identify the supplier invoice for which the process is generating a charge account number. For more information, see: Process Attributes: page 17 – 316.

About the activity nodes The Sample Process for Account Generation consists of eleven activity nodes. In the workflow diagram in

Figure 17 – 11, the process activity nodes are numbered for reference in Table 17 – 29.

The workflow illustration and the descriptive table show the Comment view. To show the Comment view in Workflow Builder, open the View menu, choose Show Label, and then choose Comments in Designer.

Figure 17 – 11 Sample Process for Account Generation. Workflow: Project Supplier Invoice Account Generation



Number and Node	Description
1. Start generating code combination	This standard activity node starts the process.
2. Assign value to Company Segment using a constant	This node assigns a constant value, 01, to the Company segment.*
3. Is Project Type Overhead? (Uses the Compare Text function from the standard workflow)	This node tests whether the project type is Overhead. The test value is set to the item attribute Project Type. The reference value is the constant Overhead. The result is Equal (the project type is Overhead and the process branches to node 6) or Not Equal (the project type is not Overhead and the process branches to node 4).

Table 17 – 29 Process: Sample Process for Account Generation. Workflow: Project Supplier Invoice Account Generation (Page 1 of 3)

Number and Node	Description
4. Get segment value using a lookup (Executed only if the project type is not Overhead)	This node looks up the Cost Center segment. The lookup uses an AutoAccounting lookup set and an intermediate value (expenditure organization). The result is Success (the process branches to node 5) or Failure (the process branches to node 11). This node uses <code>pa_acc_gen_wf_pkg.pa_seg_lookup_set_value</code>, a function that retrieves an intermediate value from an AutoAccounting lookup set. See: Using the Segment Lookup Set Value Function: page 17 – 320.
5. Assign Lookup result to Cost Center Segment	This node assigns the value found in node 4 to the cost center segment and then branches to node 7.*
6. Assign Flexfield2 (parameter) to Cost Center Segment (Executed only if the project type is Overhead)	If the project type is Overhead, this node assigns the valid value from Invoice Descriptive Flexfield Attribute 4 to the Cost Center segment.*
7. Sample function to get segment value Using SQL	This node uses a SQL procedure to derive the value for the Account segment. If the process encounters an error during any of the steps, the function branches to node 12. The sample SQL package and procedure is in the file <code>PAXTMPFB.pls</code> (located in the Oracle Projects admin/sql directory). The SQL procedure name is <code>pa_wf_fb_sample_pkg.pa_wf_sample_sql_fn</code>. The procedure contains detailed documentation. The sample function derives and sets the segment value in the Lookup Set Value attribute. If you write your own functions, you should create and set your own attributes. Note: When you define a SQL function, you can define its attributes. The procedure reads the current values of the item attributes, then uses the attributes to derive the segment. However, the function in the sample process does not require attributes.
8. Assign value to Account segment after SQL function*	This node assigns a the segment value derived in Node 7 to the Account segment.*
9. Validate Code Combination	This node contains the standard flexfield function for validating a code combination. For this function to work correctly, the attribute value <i>New code combinations</i> must be set to True.
10. End generating code combination	This standard activity node ends the process.

Table 17 – 29 Process: Sample Process for Account Generation. Workflow: Project Supplier Invoice Account Generation (Page 2 of 3)

Number and Node	Description
11. Abort Generating Code Combination	If the lookup fails in node 4, this standard flexfield function ends the process. For more information, see: Account Generator in <i>Oracle Applications Flexfields Guide</i> .
12. Abort Generating Code Combination	If the sample SQL function fails in node 7, this standard flexfield function ends the code combination process. For more information, see: Account Generator in <i>Oracle Applications Flexfields Guide</i> .

*Nodes 2, 5, 6, and 8 use the Assign Value to a Segment function, which is provided by the standard flexfield workflow. For detailed information about this function, see Account Generator *Oracle Applications Flexfields Guide*.

Table 17 – 29 Process: Sample Process for Account Generation. Workflow: Project Supplier Invoice Account Generation (Page 3 of 3)

Workflow: Project Expense Report Account Generator

This workflow contains two processes:

- Default Account Generator for Expense Reports
- Sample Account Generator for Expense Reports

Process: Default Account Generator for Expense Reports

Purpose This process generates account numbers for expense reports created in Self-Service Expenses and the Invoices window in Payables.

Workflow Project Expense Report Account Generator

When a user enters a project and task in an expense report in Self-Service Expenses, Self-Service Expenses calls the Default Account Generator for Expense Reports. This process returns the default CCID (code combination identifier) when the employee was defined in HR. If the employee does not have a default CCID, you will receive an error. For more information, see: Entering a New Employee *Oracle Human Resources User's Guide*. If you want to derive the account based on other criteria, modify the default process.

Because you cannot rename the workflow, you will modify the "original" process. If you prefer, you can create a new process.

► To modify the process:

1. Back up the workflow by copying it to a local hard disk or networked server.

Do not save the backup workflow to the database. If you do, you will overwrite the workflow in the database.

- 2. Modify the node Copy Values from Code Combination with your customized procedure for account generation.

Do not delete a node or change the node order.

- 3. Update your lookup set for information you will receive from Self-Service Expenses expense reports.

► **To create a new process:**

- 1. Make a copy of the default process
- 2. Disable the copy by changing its internal name and display name.
Now you can modify the original default process.
- 3. Assign the process to the accounting flexfield structure. See: Assigning a Process to a Flexfield Structure: page 17 – 322.

About the activity nodes This process consists of four activity nodes. In Figure 17 – 12, the process activity nodes are numbered for reference in Table 17 – 30. The numbered circles are not part of the process.

The workflow illustration and the descriptive table show the Display Name view. To show the Display Name view in Workflow Builder, open the View menu, choose Show Label, and then choose Display Name in Designer.

Figure 17 – 12 Default Account Generator for Expense Reports



Number and Node	Description
1. Start account generation	This standard activity starts the process.
2. Start generating Code Combination	This node must be customized. It generates employee account information from the employee code combination identifier.

Table 17 – 30 Process: Default Account Generator for Expense Reports. Workflow: Project Expense Report Account Generator (Page 1 of 2)

Number and Node	Description
3. Validate Code Combination	This node contains the standard Flexfield function for validating a code combination. For this function to work, the attribute value <i>New code combinations</i> must be set to <i>True</i> .
4. End generating Code Combination	This standard activity node ends the process.

Table 17 – 30 Process: Default Account Generator for Expense Reports. Workflow: Project Expense Report Account Generator (Page 2 of 2)

About the process attributes The workflow attributes (different from the node attributes) for this workflow (item type) identify the expense report for which the process is generating a charge account number. See: Process Attributes: page 17 – 316.

Process: Sample Account Generator for Expense Reports

Purpose This sample process is an example only. It illustrates how to generate accounts for expense reports created in Self-Service Expenses or the Invoices window in Payables.

Workflow Project Expense Report Account Generator

You cannot use this sample process, even with modification, in your database. You must modify the default process.

Expense reports created in Self-Service Expenses or the Invoices window in Payables may contain project or task numbers that you want to collect for Oracle Projects. This sample account generator routine generates account numbers for the projects and tasks in these expense reports.

Part of the process (the Segment Lookup Set value nodes) requires some setup in AutoAccounting. See: Using the Segment Lookup Set Value Function: page 17 – 320, see: Using AutoAccounting with Account Generator Processes: page 17 – 327.

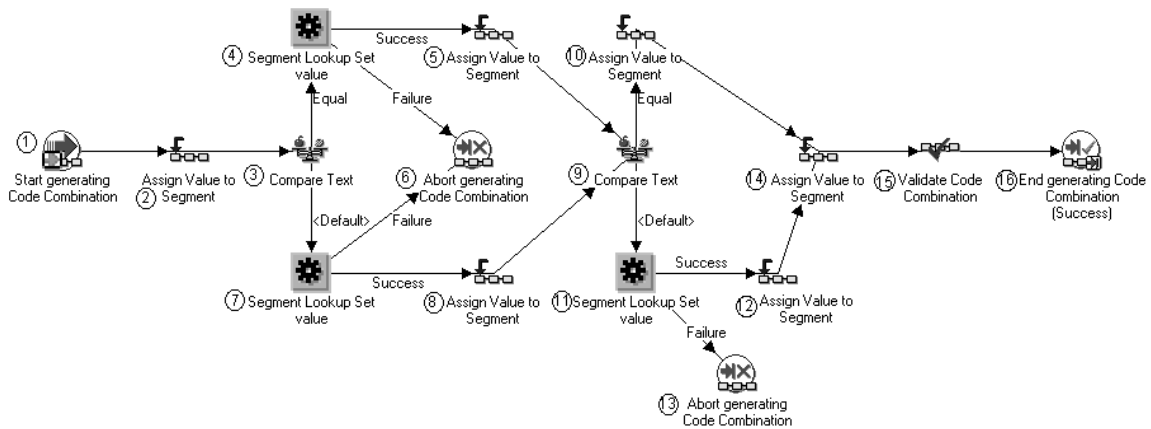
About the activity nodes The process activity nodes are numbered in Figure 17 – 13 for reference in Table 17 – 31. The numbered circles are not part of the process. Table 17 – 31 lists the attribute values for each node in the sample routine. (To display the attribute values in Oracle Workflow Builder, double-click the node and then choose the Attributes tab.)

The workflow illustration and the descriptive table show the Display Name view. To show the Display Name view in Workflow Builder, open

the View menu, choose Show Label, and then choose Display Name in Designer.

About the process attributes The workflow attributes (different from the node attributes) for the Project Expense Report Account Generator workflow (item type) identify the expense report for which the process is generating a charge account number. For more information, see: Process Attributes: page 17 – 316.

Figure 17 – 13 Sample Account Generator for Expense Reports



Number and Node (Notes are in parentheses)	Attribute Values			
	Name	Value Type	Value	Type
1. Start generating Code Combination (This standard activity node starts the process.)	(none)	(none)	(none)	(none)
2. Assign Value to Segment (Use a constant.)	Segment Identifier Segment Value Replace existing value	Constant Constant Constant Constant	Name Services Company 01 True	Lookup Text Text Lookup
3. Compare Text (Is the project type Cost Plus?)	Test Value Reference value	Item Attribute Constant	Project Type Cost Plus	Text Text

Table 17 – 31 Process: Sample Account Generator for Expense Reports. Workflow: Project Expense Report Account Generator (Page 1 of 3)

Number and Node (Notes are in parentheses)	Name	Value Type	Value	Type
4. Segment Lookup Set value (If the project type is Cost Plus, use an attribute to assign the segment value to the Department segment.)	Lookup Set Value Intermediate Value	Constant Item Attribute	Organization to Dept Value Expenditure Organization Name	Text Text
5. Assign Value to Segment (If the project type is Cost Plus, use an attribute to assign the segment value to the Department segment.)	Segment Identifier Segment Value Replace existing value	Constant Constant Item Attribute Constant	Name Services Department Lookup Set Value True	Lookup Text Text Lookup
6. Abort Generating Code Combination	Error message	Item Attribute	Error Message	Text
7. Segment Lookup Set Value (If the project type is not Cost Plus, use an attribute to assign the value to the Department segment.)	Lookup Set Name Intermediate Value	Constant Item Attribute	Organization to Dept Value Project Organization Name	Text Text
8. Assign Value to Segment (If the project type is not Cost Plus, use an attribute to assign the value to the Department segment.)	Segment Identifier Segment Value Replace existing value	Constant Constant Item Attribute Constant	Name Services Department Lookup Set Value True	Lookup Text Text Lookup
9. Compare Text (Check to see if the project type is Construction.)	Test Value Reference Value	Constant Item Attribute	Construction Project Type	Text Text
10. Assign Value to Segment (If the project type is Construction, use a constant for the Account segment.)	Segment Identifier Segment Value Replace existing value	Constant Constant Constant Constant	Name Services Account 1580 True	Lookup Text Text Lookup
11 Segment Lookup Set value (If the project type is not Construction, use an attribute to assign a segment value to the Account segment.)	Lookup Set Name Intermediate Value	Constant Item Attribute	Exp Type/Indirect Cost Acct Expenditure Type	Text Text
12. Assign Value to Segment (If the project type is not Construction, assign the Expenditure Type parameter value to the Account segment.)	Segment identifier Segment Value Replace existing value	Constant Constant Item Attribute Constant	Name Services Account Lookup Set Value True	Lookup Text Text Lookup
13. Abort generating Code Combination	Error message	Item Attribute	Error Message	Text

Table 17 – 31 Process: Sample Account Generator for Expense Reports. Workflow: Project Expense Report Account Generator (Page 2 of 3)

Number and Node (Notes are in parentheses)	Name	Value Type	Value	Type
14. Assign Value to Segment (Use a constant for the Product segment.)	Segment identifier	Constant	Name	Lookup
	Segment	Constant	Services Product	Text
	Value	Constant	000	Text
	Replace existing value	Constant	True	Lookup
15. Validate Code Combination (The code combination is valid if it exists in the GL Account Number table. If the combination is invalid, go to the create a new combination and go to the FND routine.	Validation Type	Constant	Generate Code Combination ID	Lookup
	New code combinations are allowed	Constant	True	Lookup
16. End generating Code Combination (Success) (This standard activity node ends the process.)	(none)	(none)	(none)	(none)

Table 17 – 31 Process: Sample Account Generator for Expense Reports. Workflow: Project Expense Report Account Generator (Page 3 of 3)

Process Attributes

Attributes fully identify the supplier invoice or expense report for which a process generates an account number.

You can view the characteristics of each attribute and add new attributes, but you cannot modify existing attributes.

Table 17 – 32 lists the characteristics of the attributes for the default processes described in this chapter.

You can view the attributes and their characteristics in graphic format (in Oracle Workflow Builder) or in a text file (using a word processor.

► To view the attribute characteristics in Workflow Builder:

1. Use the Oracle Workflow Builder to open the workflow (item type) whose attributes you want to view.
2. In the Navigator window, open the directory tree by clicking the + next to the workflow.
3. Click the + next to Attributes.
4. Open the property window by double-clicking the icon for the attribute whose characteristics you want to see.

5. Click the Attributes or Access tab to view different aspects of the attribute.

► **To view the attribute characteristics in a text file:**

1. Use a word processor application to open the appropriate Oracle Workflow file.
 - Open PAAPIN VW.wft to view the Project Supplier Invoice Account Generation workflow.
 - Open PAAPWEBX.wft to view the Project Expense Report Account Generator workflow.
2. Use the find command in the word processor to locate PROJECT_ID (the internal name of the first attribute).

The word processor goes to the PROJECT_ID text. The attributes for the Project ID attribute and subsequent attributes are listed there.

The table below summarizes the attributes for the two workflows described in this chapter:

Supp Inv*	Exp Rpt**	Display Name and INTERNAL NAME	Type	Length
x	x	Project Id PROJECT_ID	Number	
x	x	Task Id TASK_ID	Number	
x	x	Expenditure Type EXPENDITURE_TYPE	Text	30
x	x	Supplier Identifier VENDOR_ID	Number	
x	x	Billable Flag BILLIABLE_ID	Text	1
x	x	Project Class Code CLASS_CODE	Text	30
x	x	Expenditure Category EXPENDITURE_CATEGORY	Text	30
x	x	Direct Flag DIRECT_FLAG	Text	1
x	x	Expenditure Item Date EXPENDITURE_ITEM_DATE	Date	

Table 17 – 32 Attributes for the Oracle Projects account generators (Page 1 of 4)

Supp Inv*	Exp Rpt**	Display Name and INTERNAL NAME	Type	Length
x	x	Expenditure Organization Identifier EXPENDITURE_ORGANIZATION_ID	Number	
x	x	Expenditure Organization Name EXPENDITURE_ORG_NAME	Text	60
x	x	Project Number PROJECT_NUMBER	Text	25
x	x	Project Organization Name PROJECT_ORGANIZATION_NAME	Text	60
x	x	Project Organization Identifier PROJECT_ORGANIZATION_ID	Number	
x	x	Project Type PROJECT_TYPE	Text	20
x	x	Public Sector Flag PUBLIC_SECTOR_FLAG	Text	1
x	x	Revenue Category REVENUE_CATEGORY	Text	30
x	x	Task Number TASK_NUMBER	Text	25
x	x	Task Organization Name NAME	Text	60
x	x	Task Organization Identifier TASK_ORGANIZATION_ID	Number	
x	x	Task Service Type TASK_SERVICE_TYPE	Text	30
x	x	Top Task Identifier TOP_TASK_ID	Number	
x	x	Top Task Number TOP_TASK_NUMBER	Text	25
x		Supplier Employee Number VENDOR_EMPLOYEE_NUMBER	Text	30
x		Supplier Person Identifier VENDOR_EMPLOYEE_ID	Number	
	x	Employee Number EMPLOYEE_NUMBER	Text	

Table 17 – 32 Attributes for the Oracle Projects account generators (Page 2 of 4)

Supp Inv*	Exp Rpt**	Display Name and INTERNAL NAME	Type	Length
	x	Employee Identifier EMPLOYEE_ID	Text	
x	x	Supplier Type VENDOR_TYPE	Text	25
x	x	Chart of Accounts ID CHART_OF_ACCOUNTS_ID This attribute is present in all account generator item types.	Number Default is 101	
	x	Employee Account Identifier EMPLOYEE_CCID	Number	
	x	Expense Type EXPENSE_TYPE	Number	
	x	Expense Cost Center EXPENSE_CC	Text	240
	x	Calling Module CALLING_MODULE	Text	25
x	x	Lookup Set Value LOOKUP_SET_VALUE Stores the result of a lookup. See Using the Segment Lookup Set Value Function: page 17 – 320.	Text	25
	x	Function Transaction Code TRANSACTION_CODE	Text	30
x	x	Error Message ERROR_MESSAGE	Text	2000
x		Attribute Category and Attribute 1–15 (Invoice Descriptive Flexfield) ATTRIBUTE_CATEGORY ATTRIBUTE1–15 These are the descriptive flexfield values entered in the Payables invoice header.	Text	150
x		Distribution Attr Category and Distribution Attribute 1–15 (Inv Distn Desc Flexfield) ATTRIBUTE_CATEGORY ATTRIBUTE1–15 These are descriptive flexfield values entered for each Payables invoice distribution.	Text	150

Table 17 – 32 Attributes for the Oracle Projects account generators (Page 3 of 4)

Supp Inv*	Exp Rpt**	Display Name and INTERNAL NAME	Type	Length
	x	Attribute Category and Attribute 1–15 (Expense Report Descriptive Flexfield) ATTRIBUTE_CATEGORY ATTRIBUTE1–15	Text	150
	x	Expense Line Attr Category and Attribute 1–15 (Exp Line Desc Flexfield) ATTRIBUTE_CATEGORY ATTRIBUTE1–15	Text	150

* Attributes of the Project Supplier Invoice Account Generation workflow

** Attributes of the Project Expense Report Account Generation workflow

Table 17 – 32 Attributes for the Oracle Projects account generators (Page 4 of 4)

Using the Segment Lookup Set Value Function

The Segment Lookup Set Value function retrieves an intermediate value from an AutoAccounting lookup set. The lookup set is defined in the Oracle Projects AutoAccounting windows.

The function uses two attributes, Lookup Set Name and Intermediate Value. The segment value that results from the combination of the Lookup Set and the Intermediate Value is defined using the AutoAccounting Lookup Sets window. The function derives the segment value and assigns it to the attribute Lookup Set Value, which you can then assign to a segment using the Assign Value to Segment function.

The sample process for Project Supplier Invoice Account Generation workflow (Figure 17 – 11: page 17 – 309) uses this function in node 4 (Get segment value using a lookup). The Lookup Set Name attribute is set to SAMPLE_LOOKUP_SET. The Intermediate Value is the Expenditure Organization Name, which is an item attribute. The function sets the Lookup Set Value attribute, which is then assigned to the Cost Center segment in Node 5.

Testing a Customized Process

You should test any process before using it on a production database. To test a process, call the appropriate function in a PL/SQL block. There are two test processes, one for invoices

(**pa_acc_gen_wf_pkg.pa_inv_generate_account**) and one for expense reports (**pa_acc_gen_wf_pkg.ap_er_generate_account**).

For an example of how to test this function, see the procedure **pa_wf_fb_sample_pkg.test_ap_inv_account** in the file PAXTMPFB.pls in the admin/sql directory.

The return value is BOOLEAN. If the function returns the value *FALSE*, an error has occurred during account generation. Use the value in **X_ERROR_MESSAGE** to determine the error message.

If the value of **X_RETURN_CCID** is *-1*, the code combination that was created uses rules that do not yet exist.

The table below lists the function parameters.

Parameter Name	Type	Mode
P_PROJECT_ID	NUMBER(15)	IN
P_TASK_ID	NUMBER(15)	IN
P_EXPENDITURE_TYPE	VARCHAR2(30)	IN
P_VENDOR_ID	NUMBER	IN
P_EXPENDITURE_ORGANIZATION_ID	NUMBER(15)	IN
P_EXPENDITURE_ITEM_DATE	DATE	IN
P_BILLABLE_FLAG	VARCHAR2(1)	IN
P_CHART_OF_ACCOUNTS_ID	NUMBER	IN
P_ATTRIBUTE_CATEGORY ¹	VARCHAR2(150)	IN
P_ATTRIBUTE1 through P_ATTRIBUTE15 ¹	VARCHAR2(150)	IN
P_DIST_ATTRIBUTE_CATEGORY ²	VARCHAR2(150)	IN
P_DIST_ATTRIBUTE1 through P_DIST_ATTRIBUTE15 ²	VARCHAR2(150)	IN
X_RETURN_CCID	NUMBER(15)	OUT
X_CONCAT_SEGS	VARCHAR2	OUT
X_CONCAT_IDS	VARCHAR2	OUT
X_CONCAT_DESCRS	VARCHAR2	OUT

Table 17 – 33 Parameters for the Test Function (Page 1 of 2)

Parameter Name	Type	Mode
X_ERROR_MESSAGE	VARCHAR2	OUT

¹Descriptive flexfield values from each Payables invoice header

²Descriptive flexfield values from each Payables invoice distribution

Table 17 – 33 Parameters for the Test Function (Page 2 of 2)

Assigning a Process to a Flexfield Structure

If you changed the name of a default or sample account generator process, use the Account Generator Processes window (in the Flexfields application) to associate the new name with the appropriate flexfield structure and workflow (item type). See: Choosing the Process for a Flexfield Structure (*Oracle Applications Flexfields Guide*).

If you have not changed the name, you do not need to perform this step.

Setting the Profile Option

The Account Generator: Purge Runtime Data profile option indicates whether to purge the data used to build account combinations as soon as the account generator has completed.

For best performance, set this profile option to No and then purge the runtime data in a separate operation. Setting the profile option to No retains (in the Oracle Workflow tables) the data used by the account generator to generate code combinations. To purge the data, run the Purge Obsolete Workflow Runtime Data program after the account generator process has executed successfully. The system administrator can add this program to a request security group.

Setting this profile option to Yes purges the Oracle Workflow data as soon as the account generator has completed, but may slow the performance of the account generator.

Users can see and update this profile option.

This profile option is visible and can be updated at all levels.

Using AutoAccounting with Account Generator Processes

Both the account generation processes in Oracle Workflow and AutoAccounting in Oracle Projects can create account numbers dynamically, based on transactions in Oracle Projects. This section compares account generators to AutoAccounting, and provides directions for:

- Assigning a constant or lookup value to a segment
- Assigning an attribute parameter to a segment
- Deriving a segment value
- Learning more about SQL functions to generate account codes

The differences between the two methods are summarized in the following table:

Account Generator (Workflow) Terms or Functionality	Equivalent in AutoAccounting
Workflow or Item Type	Function
Process	Defining and assigning rules to segments
Attribute	Parameter
Assigning a constant to a segment	Assigning a constant AutoAccounting rule to a segment
Assigning an attribute parameter to a segment	Assigning an AutoAccounting rule that uses a parameter, which becomes the segment value (a lookup set is not used)
Assigning a lookup set value to a segment	Assigning an AutoAccounting rule that passes a parameter to a lookup set to determine the segment value
Deriving a segment value by using SQL statements or If conditions	Using an AutoAccounting rule that derives the intermediate value or segment value via a SQL statement.

See Also

Converting from FlexBuilder *Oracle Applications Flexfields Guide*

Assigning a Value to a Segment

You can use an account generator to assign either a constant or lookup set value to a segment.

Assigning a lookup set value to a segment uses an AutoAccounting rule that passes a parameter to a lookup set. This function is used in node 4 of the sample process shown in Figure 17 – 11 on page 17 – 309.

► **To assign a constant value to a segment:**

1. Select the Assign Value to Segment function in the Standard Flexfield workflow and then drag it to your account generation process.
2. Connect the function to the prior and subsequent steps.
3. With the Assign Value to Segment function still highlighted, choose Properties from the Edit menu.
4. In the Comment field, describe the action being performed (optional).
5. Select the Attribute Values tab and enter values for each attribute.
6. For the Value attribute, select Constant as the Value Type. Enter the constant under Value.

► **To assign a lookup set value to a segment:**

1. Open the workflow (item type) and then open your process.
2. In the Navigator, open Functions for your workflow. Select the Segment Lookup Set Value function and drag it to your account generation process.
3. Connect the function to the prior and subsequent steps.
4. With the Segment Lookup Set Value function still highlighted, choose Properties from the Edit menu.
5. Choose the Attribute Value tab and then select Lookup Set Name.
6. In the Value field, type the name of the lookup set that you want to use.
7. Select Intermediate Value. Choose Item Attribute from the list of values in the pop-up list to the left of the Value field.
8. For Value, choose an item from the list of values.

9. Assign a value to the segment. For more information, see:
Assigning an Attribute Parameter to a Segment: page 17 – 325

For detailed information about assigning lookup set values, see Account Generator *Oracle Applications Flexfields Guide*.

Assigning an Attribute Parameter to a Segment

This section describes how to use an account generator to assign an attribute parameter to a segment.

► **To assign an attribute to a segment:**

1. Select the Assign Value to Segment function from the Standard Flexfield workflow and then drag it to your account generation process.
2. Connect this function to prior and subsequent steps.
3. With the Assign Value to Segment function still selected, choose Properties from the Edit menu.
4. In the Comment field, describe the action being performed (optional).
5. Select the Attribute Values tab.
6. For the Value attribute, select Item Attribute as the Value Type. Then select the attribute whose value will be assigned to the segment.

For detailed information about this function, see: Account Generator *Oracle Applications Flexfields Guide*.

Deriving a Segment Value

SQL statements derive segment values using if/then logic. Node 7 in Figure 17 – 11 uses a SQL function.

For more information, see: SQL Functions: page 17 – 326.

SQL Functions

You must follow workflow standards when writing SQL procedures to generate account codes. Within the procedure code, use calls to the standard workflow functions to retrieve the required attributes. The final value determined by the procedure is copied into one of the attributes. The value can be then assigned to a segment.

A SQL function is illustrated in node 7 of the sample process in the Project Supplier Invoice Account workflow. See: Sample Process for Account Generation; page 17 – 308.

See Also

Overview of AutoAccounting; page 17 – 237

Oracle Applications Flexfields Guide

Comparing AutoAccounting to the Workflow Account Generator

Both the account generation processes in Oracle Workflow and AutoAccounting in Oracle Projects can create account numbers dynamically, based on transactions in Oracle Projects. This section compares the Account Generator to AutoAccounting, and provides directions for:

- Assigning a constant or lookup value to a segment
- Assigning an attribute parameter to a segment
- Deriving a segment value
- Learning more about SQL functions to generate account codes

The differences between the two methods are summarized in the following table:

Account Generator (Workflow) Terms or Functionality	Equivalent in AutoAccounting
Workflow or Item Type	Function
Process	Defining and assigning rules to segments
Attribute	Parameter
Assigning a constant to a segment	Assigning a constant AutoAccounting rule to a segment
Assigning an attribute parameter to a segment	Assigning an AutoAccounting rule that uses a parameter, which becomes the segment value (a lookup set is not used)
Assigning a lookup set value to a segment	Assigning an AutoAccounting rule that passes a parameter to a lookup set to determine the segment value
Deriving a segment value by using SQL statements or If conditions	Using an AutoAccounting rule that derives the intermediate value or segment value via a SQL statement.

See Also

Converting from FlexBuilder *Oracle Applications Flexfields Guide*

Assigning a Value to a Segment

This section describes how to use the Account Generator to assign either a constant or lookup set value to a segment.

► To assign a constant value to a segment:

1. Select the Assign Value to Segment function in the Standard Flexfield workflow and then drag it to your account generation process.
2. Connect the function to the prior and subsequent steps.
3. With the Assign Value to Segment function still highlighted, choose Properties from the Edit menu.
4. In the Comment field, describe the action being performed (optional).
5. Select the Attribute Values tab and enter values for each attribute.
6. For the Value attribute, select Constant as the Value Type. Enter the constant under Value.

► To assign a lookup set value to a segment:

Assign an AutoAccounting rule that passes a parameter to a lookup set.

This function is used in node 2 of the sample processes for account generation for Oracle Projects. See: Process: Sample Process for Account Generation: page 17 – 308.

For detailed information about this function, see Account Generator *Oracle Applications Flexfields Guide*.

Assigning an Attribute Parameter to a Segment

This section describes how to use the Account Generator to assign an attribute parameter to a segment.

► To assign an attribute to a segment:

1. Select the Assign Value to Segment function from the Standard Flexfield workflow and then drag it to your account generation process.
2. Connect this function to prior and subsequent steps.
3. With the Assign Value to Segment function still selected, choose Properties from the Edit menu.

4. In the Comment field, describe the action being performed (optional).
5. Select the Attribute Values tab.
6. For the Value attribute, select Item Attribute as the Value Type. Then select the attribute whose value will be assigned to the segment.

For detailed information about this function, see Account Generator (*Oracle Applications Flexfields Guide*).

Deriving a Segment Value

SQL statements derive segment values using if/then logic. You can do this in an account generator process with either conditional nodes or SQL functions.

For example, see: Sample Process for Account Generation: page 17 – 308 in the Project Supplier Invoice Account Generation workflow. Nodes 3, 4, 5, and 6 are conditional, and nodes 7 and 8 use SQL functions. .

SQL Functions

You must follow workflow standards when writing SQL procedures to generate account codes. Within the procedure code, use calls to the standard workflow functions to retrieve the required attributes. The final value determined by the procedure is copied into one of the attributes. The value can be then assigned to a segment.

SQL functions are illustrated in nodes 7 and 8 in the sample process for account generation in the Project Supplier Invoice Account workflow. See: Process: Sample Process for Account Generation: page 17 – 308.

See Also

Overview of AutoAccounting: page 17 – 237

Oracle Applications Flexfields Guide

CHAPTER

18

Advanced Implementation Issues

This chapter describes advanced issues for implementing and setting up Oracle Projects.

Tracking Overtime and Premium Labor Costs

You can use Oracle Projects to track the cost of overtime and other premium compensation, allowing you to determine the true cost of labor.

Overview of Labor Costing

When you enter timecards in Oracle Projects, you charge the total hours an employee worked to the project(s) on which the employee worked.

When an employee works overtime, in addition to charging the total hours an employee worked to the project(s) on which the employee worked, you calculate and charge the overtime hours and costs.

Therefore, the employee's pay includes two components:

- Straight time cost (straight time and overtime hours)
- Overtime or premium cost (overtime hours only)

Straight time cost

Straight time cost is the amount that an employee is normally paid for straight time (or regular) hours worked. Oracle Projects calculates straight time cost using an employee's hourly labor cost rate:

$$\text{(Hours Worked x Hourly Labor Cost Rate)}$$

You charge an employee's straight time hours to the project(s) on which the employee worked.

Overtime cost

Overtime cost, also referred to as *premium cost*, is the extra currency amount that an employee is paid for overtime hours worked. Oracle Projects calculates overtime cost using a labor cost multiplier that corresponds to the kind of overtime worked:

$$\text{(Hours Worked x Hourly Labor Cost Rate x Labor Cost Multiplier)}$$

You can charge an employee's overtime hours to the indirect project that collects all overtime costs or to the project on which the employee worked.

Costing straight time and overtime hours

You charge the total hours an employee works to the project(s) on which that employee worked regardless of overtime hours. Additionally, you charge a project in which you collect overtime to calculate and track the overtime cost.

For example, if Don Gray worked 10 hours of overtime (Time and Half) on a bid and proposal project for Fremont Corporation, you charge 10 hours to the bid and proposal project (total hours worked), and 10 hours to the project on which you collect overtime (total overtime premium hours worked). In this case, the project on which you collect overtime is an to an indirect project. Oracle Projects calculates the cost of Gray's time using the following information:

- Gray's labor cost rate is \$40.00 per hour
- The labor cost multiplier for Time and Half is 0.5

Thus, Gray is paid \$600 for the 10 hours he worked. Table 18 – 1 illustrates how Oracle Projects calculates this total:

Type of Cost	Project	Hours	Cost
Straight Time	B&P	10	\$400.00 (10 Hours x \$40.00)
Overtime	OT	10	\$200.00 (10 Hours x \$40.00 x .05)
Total		10	\$600.00

Table 18 – 1 Sample Labor Hours (Page 1 of 1)

There are few things to note about straight time and overtime:

- When summing total hours for an employee, only include straight time hours. If both straight time and overtime hours were summed, the overtime hours would be double counted. For example, Gray's total hours equal 10, not 20
- When summing total overtime hours for an employee, include overtime hours only. In the example, above, the 10 hours Gray worked are recognized as overtime
- When summing total cost for an employee, include both straight time and overtime costs. For example, Gray's total cost is his straight time cost (\$400.00) plus his overtime cost (\$200.00)

- The straight time and overtime costs are burdened based on your burden costing setup and whether your burden costs on the projects are charged

Overview of Tracking Overtime

You can track overtime premium costs in Oracle Projects in two primary ways:

- Charge to an indirect project. See: Implementing Overtime Charged to an Indirect Project: page 18 – 4.
- Charge to a project on which overtime was worked. See: Implementing Overtime Charged to a Project on Which You Have Worked (Case Study): page 18 – 13.

Implementing Overtime Charged to an Indirect Project (Case Study)

If you charge overtime costs to an indirect project, you can use Oracle Projects to record the premium your business pays employees for overtime hours they work. Your business can then recover overtime costs with higher bill rates or higher overhead rates.

This section describes each implementation step you need to complete to set up Oracle Projects to charge overtime costs to an indirect project. Each step includes an example of how Fremont Corporation implements overtime.

Fremont Corporation records all overtime labor hours in one indirect project. Fremont regards these hours as overhead, and does not directly bill clients for overtime premiums. (Fremont accounts for overtime labor cost in its bill rates.)

Fremont implements the Oracle Projects Overtime Calculation extension to calculate overtime hours automatically.

Complete the following steps to implement an indirect project to collect overtime premium costs:

- Implement the Oracle Projects Overtime Calculation extension
- Define overtime expenditure types
- Define compensation rules

- Define labor cost multipliers
- Enter an overtime project
- Define overtime tasks
- Update compensation rules
- Assign a labor cost multiplier for each overtime task
- Implement AutoAccounting

Implement the Overtime Calculation extension

You can specify the way you want to use the Overtime Calculation extension in the Implementation Options window. See: Enable Overtime Calculations: page 17 – 64 and Overtime Calculation Extension: page 19 – 50.

Fremont uses the standard Overtime Calculation extension without modifying it. The extension already recognizes the kinds of overtime Fremont uses.

Note: If you want to use the standard Overtime Calculation extension without modifying it, you must define the compensation rules, Overtime expenditure type, and overtime project and tasks just as Fremont Corporation does.

Define overtime expenditure types

You need to define at least one overtime expenditure type. You use the Expenditure Types window to define overtime expenditure types classified by the *Overtime* expenditure type class. See: Expenditure Types: page 17 – 87.

Fremont's implementation team defined one overtime expenditure type.

Name	Overtime
Expenditure Type Class	Overtime

Define compensation rules

You define compensation rules to identify different pay types. Each employee is assigned a compensation rule, which determines how Oracle Projects calculates overtime for each employee.

You use the Compensation Rules window to define compensation rules. See: Compensation Rules: page 17 – 104. Use the Employee Cost Rates window to assign each employee a compensation rule and an hourly cost rate. See: Employee Cost Rates: page 17 – 106.

Fremont uses three pay types to determine how an employee is paid. Fremont defined the following three compensation rules during an earlier phase of its implementation of Oracle Projects.

Note: These compensation rules are referenced in the Overtime Calculation extension. If you define different compensation rules, you must change the Overtime Calculation extension to reference your compensation rules.

Compensation Rule

Name	Exempt
Overtime Expenditure Type	Overtime

Compensation Rule

Name	Hourly
Overtime Expenditure Type	Overtime

Compensation Rule

Name	Compensated
Overtime Expenditure Type	Overtime

Define labor cost multipliers

For each type of overtime your business uses, you need to define a corresponding labor cost multiplier. Later, you assign the appropriate labor cost multiplier to each overtime task.

You use the Labor Cost Multipliers window to define labor cost multipliers. See: Labor Cost Multipliers: page 17 – 107.

Fremont defines a labor cost multiplier for each kind of overtime it uses.

Name	Multiplier
Time and Half	0.5

Double Time	1.0
Uncompensated OT	-1.0

Uncompensated overtime uses a multiplier of -1.0 to create a negative overtime cost in the overtime project. The negative cost reverses the straight time cost charged to the project on which the employee worked. The total cost for an employee's uncompensated overtime is, thus, \$0.00, since the overtime cost reverses the straight time cost.

Enter one or more overtime projects

You can define one indirect project to hold all of your company's overtime costs, or you can define many indirect projects – one for each group or office of your company – to make it easier to enter and report overtime by group or office. For example, you can create an overtime project for each office. You then charge each employee's overtime hours to the overtime project for the office to which they are assigned.

If you decide to use more than one indirect project to hold your company's overtime costs and you are using automatic overtime calculation, you must include the logic in your Overtime Calculation extension to charge the overtime hours to the appropriate overtime project.

You use the Projects window to define your overtime projects. See: Project Entry: page 2 – 32.

Fremont Corporation uses just one indirect project to record overtime hours.

Note: This project number is referenced in the Overtime Calculation extension. If you define a different project number for your overtime project, you must change the Overtime Calculation extension to reference that project.

Project:

Number	OT
Name	Overtime Premium
Description	This project is the corporate bucket for all overtime labor hours
Organization	Human Resources
Status	Permanent

Public Sector	No
Type	Overhead

Define overtime tasks

For each overtime project, you must define a task for each type of overtime your business uses. Different types of overtime use different labor cost multipliers to calculate overtime costs. Examples of overtime include the following:

- Time and Half
- Double Time
- Uncompensated Overtime

If you are using automatic overtime calculation, you must include the logic in your Overtime Calculation extension to charge overtime hours to the appropriate overtime task.

You can use either the Tasks option of the Projects window to define overtime tasks. See: *Entering Tasks for a Project*: page 2 – 36.

Note: These task numbers are referenced in the Overtime Calculation extension. If you define different task numbers for your overtime project, you must change the Overtime Calculation extension to reference those numbers.

Fremont defines a task for double time overtime. The Overtime Calculation extension recognizes employees with either the *Compensated* or *Hourly* compensation rule as eligible for double time.

Task

Task Number	Double
Task Name	Double Time
Description	Double time overtime labor hours
Organization	Human Resources
Service Type	Overtime

Fremont defines a task for time-and-half overtime. The Overtime Calculation extension recognizes employees with either the *Compensated* or *Hourly* compensation rule as eligible for time and a half.

Task

Task Number	Half
Task Name	Time and Half
Description	Time and a half overtime labor hours
Organization	Human Resources
Service Type	Overtime

The third project task is for uncompensated overtime; the Overtime Calculation extension recognizes employees with the *Exempt* compensation rule as not eligible for overtime.

Task

Task Number	Uncomp
Task Name	Uncompensated
Description	Uncompensated overtime labor hours
Organization	Human Resources
Service Type	Overtime
Task Number	Uncomp

Update compensation rules

You need to update your compensation rules by specifying an overtime project as a default project. If you do not specify a default project, you cannot assign labor cost multipliers to the overtime tasks in that project.

Listing an overtime project in each of your compensation rules identifies that project as a project for recording overtime, and thus, a project for which you can assign labor cost multipliers to overtime tasks.

If you use manual overtime calculation, the project you specify as a default displays in the Expenditure Items window when you enter an employee's overtime hours in Oracle Projects. (You can override this value if you like.)

You use the Compensation Rules window to update your compensation rules.

Fremont uses the Compensation Rules window to list the Overtime Premium project as a default project in its compensation rules.

Fremont specifies the expenditure type it defined with the *Overtime* expenditure type class for all three of its compensation rules.

Since employees with the *Hourly* or *Compensated* compensation rule are eligible for either time and a half or double time overtime, Fremont does not specify a task name for either of these rules.

Since employees with the *Exempt* compensation rule are not eligible for overtime compensation, their overtime hours are always charged to the *Uncompensated* task. Fremont, therefore, specifies this task for the Exempt rule.

Compensation Rule

<i>Name</i>	Hourly
<i>Overtime</i>	Overtime
<i>Expenditure Type</i>	

Defaults for Manual Overtime Expenditure Entries

<i>Project Number</i>	OT
<i>Project Name</i>	Overtime Premium
<i>Task Number</i>	
<i>Task Name</i>	

Compensation Rule

<i>Name</i>	Compensated
<i>Overtime</i>	
<i>Expenditure Type</i>	Overtime

Defaults for Manual Overtime Expenditure Entries

<i>Project Number</i>	OT
<i>Project Name</i>	Overtime Premium
<i>Task Number</i>	
<i>Task Name</i>	

Compensation Rule

<i>Name</i>	Exempt
<i>Overtime</i>	Overtime
<i>Expenditure Type</i>	

Defaults for Manual Overtime Expenditure Entries

<i>Project Number</i>	OT
<i>Project Name</i>	Overtime Premium

Task Number	Uncomp
Task Name	Uncompensated

Assign a labor cost multiplier to each overtime task

For each overtime project, you assign the appropriate labor cost multiplier to each overtime task.

After you specify an overtime project in the Compensation Rules window, you can assign a labor cost multiplier to each task in that project using the Task Details window in the Projects window. See: Entering Tasks for a Project: page 2 – 36.

The Labor Cost Multiplier field is available only for lowest tasks on projects you specify as part of a compensation rule.

Oracle Projects calculates the cost of an overtime item based on the labor cost multiplier of the task to which you charge the item.

For double time overtime, Fremont records a premium amount equal to an employee's labor cost, thus doubling the total costs.

Project

Number	OT
Name	Overtime Premium

Task

Number	Double
Name	Double Time

Labor Cost Multiplier

Name	Double Time
Multiplier	1.0

For time and a half overtime, Fremont records an additional one half the employee's labor cost for every overtime hour the employee works.

Project

Number	OT
Name	Overtime Premium

Task

Number	Half
Name	Time and Half

Labor Cost Multiplier

Name Time and Half

Multiplier 0.5

For uncompensated overtime, Fremont records a negative premium amount to reverse the straight time costs of the overtime hours charged. (Fremont does not incur overtime costs for an *Exempt* employee's overtime hours.)

Project

Number OT

Name Overtime Premium

Task

Number Uncomp

Name Uncompensated Overtime

Labor Cost Multiplier

Name Uncompensated OT

Multiplier -1.0

Implement AutoAccounting to charge appropriate expense accounts

When you implement AutoAccounting, you can charge straight time costs to a labor expense account and overtime costs to an overhead or overtime expense account.

To charge straight time and overtime to different accounts, you define an AutoAccounting rule based on expenditure type, expenditure category, service type, compensation rule, or labor cost multiplier. See: Accounting for Labor Costs: page 17 – 260.

Or, if you want to charge all labor costs to one account, you can define a constant rule.

Fremont implemented AutoAccounting to use the service type to charge overtime labor costs to the following expense account:
5173 – Overtime Labor Costs : page 17 – 260.

Each of the three overtime tasks (Double Time, Time and Half, and Uncompensated) uses the Overtime service type.

Implementing Overtime Charged to a Project (Case Study)

The section demonstrates how to design client extensions that solve the business problem of charging and billing overtime premium transactions to projects on which the overtime is worked.

Business Rule

The first step in the design process is to determine the business rule that you want to solve using client extensions.

Business Rule: Create overtime premium transactions charged to the contract project on which the overtime was worked.

You charge overtime premium costs to the project and task on which the overtime is worked. You also bill the overtime premium costs at cost, and bill all straight time hours based on the billing methods defined for the project and task.

Employees identify the overtime hours worked on their timecard with one of the following expenditure types:

- Double Time
- Time and Half

The appropriate overtime premium multipliers are defined based on the type of overtime work, as identified by the overtime expenditure types.

This is a different method of accounting for overtime premium costs than charging overtime premium to an indirect project as supported by the Overtime Calculation extension provided by Oracle Projects



Suggestion: If you determine that you need to use both the Labor Transaction Extension and the Overtime Calculation extension to process overtime for your employees, you need to ensure that you have defined conditions in each of these functions so that each transaction is processed by only one of these functions, based on your company policies.

The following chart displays an example of the transactions that may exist on a project for which overtime is charged according to this business rule.

Source	Expenditure Type Class	Quantity	Cost Rate	Raw Cost	Bill Rate	Billable Status	Bill Amount
Professional	Straight Time	8	\$40	\$320	\$140	Yes	\$1,120
Time and Half (Source Transaction)	Straight Time	2	\$40	\$80	\$140	Yes	\$280
Time and Half Premium	Overtime	0	20 (40 X .5)	\$40 (A)	N / A	Yes	\$40 (B)
(A) Raw Cost = Raw Cost Amount X Time and Half Premium Multiplier: \$80 X .5							
(B) Bill Amount = Raw Cost Amount of Overtime Premium Transaction: (A) = (B)							

Table 18 – 2 (Page 1 of 1) Overtime Premium to Contract Project Example

List Business Requirements

After you define the business rule you want to solve using client extensions, list the business requirements behind the business problem. This will help ensure that you are acknowledging all of the aspects of the business problem during the design stage.

- Create overtime premium items for any overtime charged to projects on timecards
- Charge the overtime premium costs to the same project that incurred the straight time costs for the overtime worked
- Calculate raw cost overtime premium using the appropriate labor cost multiplier and the source transaction raw cost amount
- Overtime premium is not burdened
- Bill overtime premium at cost. (Straight time is billed using appropriate bill or burden rates based on the project setup.)
- Separate items are required for the overtime premium and the straight time, to bill the overtime premium and straight time differently
- Overtime premium costs are not accounted for differently than straight time costs

Required Extensions

To implement charging and billing overtime to a contract project, you use two extensions:

- Labor Transaction Extension to create the overtime premium transactions as related transactions
- Labor Billing Extension to determine the bill amount of the overtime premium transactions



Suggestion: Review the PL/SQL code that corresponds to the implementation of this case study in the files PAXCCETB.pls and PAXICTMB.pls located in the Oracle Projects admin/sql directory.

Additional Implementation Data

Before you start charging overtime to a contract project, you need to create the appropriate implementation data to implement this business requirement.

First, you define expenditure types classified with the *Straight Time* expenditure type class; these expenditure types are used by employees to identify overtime worked when recording their timecards.

Next, you define expenditure types classified with the *Overtime* expenditure type class, which is used to identify the overtime premium transactions. These expenditure types are named using the corresponding expenditure type that identifies the overtime worked along with the word *Premium* concatenated to the end of it. For example, the *Double Time Premium* expenditure type holds the overtime premium costs for the overtime worked identified by the expenditure type of *Double Time*.

Expenditure Type	Expenditure Type Class
Double Time	Straight Time
Time and Half	Straight Time
Double Time Premium	Overtime
Time and Half Premium	Overtime

Table 18 – 3 (Page 1 of 1)

Finally, you define the appropriate overtime premium multipliers using the labor cost multipliers functionality in Oracle Projects. You define the labor cost multiplier name to match the expenditure type name for which the labor cost multiplier is used. For example, an overtime multiplier for double time is recorded in a labor cost multiplier with a name of *Double Time* and a multiplier value of 1.

Related Item Expenditure Type	Labor Cost Multiplier
Double Time Premium	1
Time and Half Premium	.5

Table 18 – 4 (Page 1 of 1)

With this implementation data, you can easily add more types of overtime, without having to change your labor transaction extension to calculate the overtime premium costs. For example, if you want to add *Time and Quarter* in which the overtime premium costs are calculating using a multiplier of .25, you define two new expenditure types of *Time and Quarter* and *Time and Quarter Premium*. You then define a new labor cost multiplier with the name of *Time and Quarter*, and a multiplier value of .25. After defining this data, you have completed the implementation of a new type of overtime which can be processed in the labor transaction extension that you defined to create overtime premium transactions using this implementation data.

Attributes of Straight Time Transactions

You do not need to use a client extension to create the straight time transactions; they are created within the standard processing of Oracle Projects when you enter timecard items. However, you may wish to review some of the attributes of the straight time transactions to help you determine what additional information you need for the related transactions for overtime premium costs.

Raw Cost Calculation. Cost straight time items according to the standard processing of Oracle Projects (*hours × employee hourly cost rate*).

Burdening. Burden straight time cost based on project and task setup using the standard cost plus processing of Oracle Projects.

Billable Status. All straight time transactions are billable, as determined by the project and task setup.

Bill Amount. Bill straight time labor as determined by the billing setup for projects and tasks using standard billing methods.

Accounting. Account for all straight time costs and revenue to contract projects according to your AutoAccounting rules.

Creating Overtime Premium Transactions. To create the overtime premium transactions for each overtime transaction recorded on a timecard, use the Labor Transactions Extension. See: Labor Transactions Extensions: page 19 – 34.



Suggestion: Review the file PAXCCETB.pls to see the PL/SQL code that creates the overtime premium transactions.

Identifying Overtime Transactions. You can identify the overtime transactions for which to create overtime premium transactions based on the implementation data defined for this business requirement. You create overtime premium transactions for all overtime transactions classified with an expenditure type name that also exists as a labor cost multiplier name. This functionality is illustrated in the example in the template files for the labor transaction extension.

You could also have identified these transactions by explicitly listing the appropriate expenditure type values in your labor transaction extension. However, with this method, any time you wanted to implement a new overtime type, you would have had to change the explicit list of overtime expenditure types in your labor transaction extension.

There are many ways to implement a solution to a business requirement using client extensions. However, as illustrated by these two methods just described, you can see that one way may be superior to any other method to reduce maintenance of the extension. This type of implementation requires creative design skills along with an understanding of the client extensions, the PL/SQL language, and the Oracle Projects data structures.

Assigning Expenditure Types. Create overtime premium related transactions for source labor transactions charged with specific expenditure types.

For example, for any expenditure item with an expenditure type of *Double Time* or *Time and Half*, you want to create a related transaction to record the overtime premium costs. You create the related transaction with the associated overtime premium expenditure type. Based on your implementation data, you know that the overtime premium expenditure types uses the same name as the overtime expenditure type with the word *Premium* concatenated to the end of it. These overtime expenditure types and their corresponding overtime premium expenditure types are listed below.

Source Expenditure Type	Related Transaction Expenditure Type	Related Transaction Expenditure Type Class
Double Time	Double Time Premium	Overtime
Time and Half	Time and Half Premium	Overtime

Charging to a Project and Task. Charge the related transaction to the same project and task as the source transaction, since the business

requirements specify that all overtime premium transactions are charged to the same project as the overtime worked.

In this case, you do not need to explicitly specify the project and task values when you call the `CreateRelatedItem` procedure in your labor transaction extension. If you do not specify these values, the `CreateRelatedItem` procedure automatically charges the related transaction to the same project and task as the source transaction.

Calculating Raw Cost. Cost overtime premium items according to the following formula:

Source transaction raw cost amount $\times$ *appropriate labor cost multiplier*

You have defined labor cost multipliers with names that match the expenditure types which identify the overtime hours worked. Use the appropriate labor cost multiplier to calculate the overtime premium transaction raw cost.

For example, if the expenditure type of the related transaction is *Time and Half Premium*, calculate the raw cost of the related transaction according to the raw cost amount of the source transaction times the labor cost multiplier of .5.

Billing Overtime Premium Transactions

To establish the bill amount of the related transactions for overtime premium, you use the Labor Billing Extension. See: Labor Billing Extensions: page 19 – 46.



Suggestion: Review the file `PAXICTMB.pls` to see the PL/SQL code that calculates the bill amount of the overtime premium transactions.

Identifying Overtime Premium Transactions

Identify all billable transactions classified with the *Overtime* expenditure type class.

Oracle Projects passes only billable transactions to the labor billing extension, so you only need to include logic based on the expenditure type class to identify the appropriate transactions.

This assumes that all expenditure types classified with the *Overtime* expenditure type class are to be billed in this way. If this is not true in your case, you can explicitly list the expenditure types to which this rule applies.

Calculating Bill Amount

According to the business requirements, bill overtime premium transactions based on the raw cost of the overtime premium transaction.

For all transactions that you identified with the Overtime expenditure type class, you set the bill amount equal to the raw cost.

For all other labor transactions, you do not set the bill amount in the labor billing extension. Oracle Projects then uses the standard billing methods to calculate the bill amounts for these transactions.

Other Design Considerations for Related Transactions

Determining Billable Status

You set the billable status of the related transactions based on the setup of project / task transaction controls.

Accounting for Revenue

Charge all overtime premium charged to contract projects using the same accounts that straight time labor is charged on those projects.

Displaying Related Transactions on an Invoice

Display overtime premium on separate invoice line from straight time transactions.

You can do this by defining the appropriate labor invoice format to group straight time and overtime premium transactions on different invoice lines. You may do this by grouping the labor invoice lines by expenditure type or by expenditure category or revenue category, if you have straight time and overtime premium expenditure types assigned to different expenditure categories or revenue categories.

Testing Your Implementation

You must test your client extension to ensure that you have correctly implemented this business requirement.

Below are listed the basic steps that you may perform to test your implementation. You should develop detailed test cases, which include the appropriate implementation and project data and the resulting cost, revenue, and invoice amounts for the transactions.

1. Create labor transactions using *Double Time* and *Time and Half* expenditure types charged to a contract project
2. Process for costing, revenue accrual, and invoicing
3. Review results of related transactions to ensure that the related transactions are correctly created and processed. Verify the following values of the related transactions:
 - Raw cost
 - Burdened cost
 - Raw cost account
 - Billable flag
 - Bill amount
 - Revenue amount
 - Revenue account
 - Item is included on an invoice
4. Release invoice
5. Change cost rate of the employee for which you created the overtime premium transactions
6. Mark overtime transactions for cost recalculation
7. Process for costing, revenue accrual, and invoicing
8. Review results of related items with new cost rate to ensure that the related transactions are properly processed (use the values in step 3)
9. Change the related transactions to be non-billable (independent of the source transaction)
10. Process for costing, revenue accrual, and invoicing
11. Review the results of resulting credit memo (you created this when you changed the billable status of the related transactions)
12. Interface cost, revenue, and invoices
13. Review summarized amounts by expenditure types to ensure that cost and revenue amounts are correct for the overtime and overtime premium expenditure types

Calculating and Entering Overtime

After you completely set up your projects to collect overtime, you need to calculate overtime hours and enter them in Oracle Projects.

You calculate overtime hours and charge the hours to your overtime project using one of the following methods:

- Manually calculate overtime hours and charge them to your indirect project.
- Use a client extension or use the labor client extensions to calculate and charge the hours to your projects automatically.



Attention: You need to specify an overtime calculation method using the Implementation Options window during your implementation of Oracle Projects. See: Implementation Options: page 17 – 57.

Manual overtime calculation and entry

You can manually enter overtime hours along with straight time hours using the Expenditure Batches window.

When a timecard clerk enters pre-approved timecards, the clerk calculates an employee's overtime manually based on company overtime policies and the employee's compensation rule.

The clerk charges an employee's overtime hours to the overtime project and appropriate overtime task using an expenditure type that is classified with a expenditure type class of *Overtime*.

For example, suppose Pat Miller, a compensated employee turns in the timecard shown in the following table:

Fremont Corporation – Time Report			
Employee Name: Pat Miller		Number: 1030	Organization: Structural
Project/Task Number: TM4/1.0		Project/Task Name: Engineering Survey / Collect Data	
Day	Date	Hours	Total Hours
Monday	April 18	8	Total Hours
Tuesday	April 19	9	
Wednesday	April 20	10	
Thursday	April 21	10	
Friday	April 22	8	
Saturday	April 23	7	
Sunday	April 24		52

Table 18 – 5 Sample Timecard (Page 1 of 1)

According to Fremont Corporation’s policy, Miller is entitled to time and a half overtime for the first 40 hours she works beyond 40 hours per week. When the accounting department enters Miller’s timecard into Oracle Projects, a clerk enters the following two timecard lines:

- 52 hours of straight time charged to the engineering survey project
- 12 hours of overtime charged to the overtime project, Time and Half task

The first line records 52 hours of straight time labor cost charged to the engineering survey project, which is costed using Miller’s hourly labor cost rate.

Fremont Corporation enters summary timecards for the expenditure week. They do not enter daily timecard lines.

The second line accounts for the overtime premium Fremont pays Miller for her overtime hours. The 12 overtime hours are charged to Fremont’s indirect project, Time and Half task; the task’s labor cost multiplier (0.5) calculates half Miller’s labor cost rate.

Notes:

- The expenditure item date can be set in two different ways, depending upon whether overtime is calculated for the week or a day. Generally, overtime is calculated for the week, so the clerk sets the expenditure item date of the overtime item to the week ending date. If overtime is calculated based on daily hours, the clerk can enter the overtime for each day or can summarize the

overtime and enter the total overtime hours with a date of the end of the week. This is a company policy decision, but it is recommended that you enter overtime with the week ending date to reduce the number of overtime entries.

- After the clerk selects an Overtime expenditure type, the project and task default from the overtime project and task specified for the employee's compensation rule. You can override these values.
- Oracle Projects calculates the cost of the expenditure item using the labor cost multiplier that is assigned to the overtime task to which it is charged.
- All expenditure item dates must be within the expenditure week ending date of the timecard.

Automatic overtime calculation and entry

You can use the Overtime Calculation extension or labor client extensions to automatically calculate and charge all overtime hours to the project and tasks you specify according to your business policies.

Unlike manual overtime calculation, in which you calculate and enter overtime hours when you enter timecards, you can use automatic overtime calculation to calculate and charge overtime hours to a project and task when your accounting department distributes labor costs. Employees and timecard clerks, thus, enter only straight time hours.

Using the example, above, but this time using automatic overtime calculation, if Pat Miller works 52 hours on an engineering survey, the clerk in the accounting department enters only one line:

- 52 hours of time charged to the engineering survey project

When the accounting department distributes labor costs, the PRC: Distribute Labor Costs process runs the Overtime Calculation extension, or the labor client extension which automatically calculates overtime hours, and creates the following new expenditure item in a new expenditure and expenditure batch:

- 12 hours charged to the overtime project, Time and Half task

Oracle Projects uses two expenditure items to process Miller's labor cost whether you use manual or automatic overtime calculation; the difference is how and when the overtime items are calculated and entered.

See Also

Labor Costing Extensions: page 19 – 31

Labor Transaction Extensions: page 19 – 34

Overtime Calculation

Oracle Projects includes a standard Overtime Calculation extension that supports three kinds of overtime. You probably need to customize this extension to support the kinds of overtime your business uses.

The Overtime Calculation extension determines which kind of overtime to award an employee based on the assigned compensation rule and hours worked. Table 18 – 6 illustrates the overtime policy that the overtime calculation extension delivered with Oracle Projects provides as an example for you to use as a starting point:

Kind of Overtime		
Compensation Rule	Pay	When to Apply
Hourly	Time and Half	First 4 hours beyond 8 per day
	Double Time	Every hour beyond 12 per day
		Every hour on weekends
Compensated	Time and Half	First 40 hours beyond 40 per week
	Double Time	Every hour beyond 80 per week
Exempt	Uncompensated	Every hours beyond 40 hours per week

Table 18 – 6 Sample Overtime Policy (Page 1 of 1)

The Overtime Calculation Extension

If you want to use automatic overtime calculation, you need to enable the Overtime Calculation extension using the Implementation Options window.

Before you enable the Overtime Calculation extension, you need to set up your overtime project, and, if necessary, customize the Overtime

Calculation extension to implement your company's overtime policy. The Overtime Calculation extension is a client extension that, if enabled, is called by the PRC: Distribute Labor Costs process.

See: Overtime Calculation Extension: page 19 – 50.

Overtime Adjustments

To handle overtime adjustment processing, the Overtime Calculation extension sums the amount of existing overtime hours for the employee and week, along with summing the total hours of straight time for the employee and week. Before overtime items are created, the Overtime Calculation extension compares the new total overtime hours with the existing overtime hours. If a difference exists between the new total overtime hours and the existing overtime hours, the existing overtime hours are fully reversed before a new overtime expenditure item is created for the new calculated overtime hours. If a difference does not exist, no new overtime items are created.

For example, a week after Pat Miller charged 52 hours to the engineering survey project, Miller submits an adjusting timecard for the previous week to charge an additional 2 hours to the survey project. The timecard clerk enters a timecard line:

- 2 hours of straight time charged to the engineering survey project

The Overtime Calculation had originally calculated and created 12 hours of overtime. With this new timecard line, Miller is entitled to 14 hours of overtime. The Overtime Calculation extension creates two overtime items to record this adjustment:

- -12 hours of overtime charged to the overtime project, Time and Half task
- 14 hours of overtime charged to the overtime project, Time and Half task

These two items together record the adjusting 2 hours of overtime.

Overtime adjustments that reduce the overtime hours are processed in the same way as overtime adjustments that increase the overtime hours. The original overtime item is fully reversed and a new overtime item is created to record the new overtime hours.

Adjusting Overtime

Occasionally, you may need to revise the number of hours on a timecard, which may affect the number of overtime hours you want to charge to an overtime project.

If you use manual overtime entry, a clerk must manually revise the overtime hours, and re-enter them when timecard hours are changed.

If you use automatic overtime calculation, the Overtime Calculation extension or other client extensions automatically handle adjustments to overtime hours that result from straight time adjustments.

Manual overtime adjustments

Overtime adjustment hours are entered the same way that straight time adjustment hours are entered.

If the adjustment hours increase the total number of hours, create a new expenditure item to record the positive number of hours that is the difference between the original number of hours entered and the new total number of hours to be entered.

If the adjustment hours decrease the total number of hours, create a new expenditure item to fully reverse the original amount of overtime hours and create a new item to enter the new amount of overtime hours. An expenditure item with negative hours must match an existing expenditure item based on the person, expenditure item date, expenditure type, project, and task. The numbers of hours reversed must equal the total number of hours of the original item.

To illustrate the way adjustments are entered, we will use Pat Miller's timecard as discussed in previous sections (See page 18 – 21).

Increasing Overtime Hours

Assume Pat Miller charged 52 hours to the engineering survey project as described earlier. A week later, Miller submits an adjusting timecard for the previous week to charge an additional 2 hours to the engineering survey project. This increases the number of hours worked to 54 hours for the week; this also increases the number of overtime hours from 12 to 14 hours for the week. The timecard clerk enters an adjusting timecard with the expenditure ending date set to the previous week ending date and enters the following two timecard lines to record this adjustment:

- 2 hours of straight time charged to the engineering survey project
- 2 hours of overtime charged to the overtime project, Time and Half task

These two timecard lines record the hours and cost for the additional 2 hours for the previous week.

Decreasing Overtime Hours

Again, assume Pat Miller charged 52 hours to the engineering survey project. A week later, Miller submits an adjusting timecard for the previous week to back out 2 hours charged to the engineering survey project. This adjustment decreases the number of hours worked to 50 hours for the week; this also decreases the number of overtime hours from 12 to 10 hours for the week. The timecard clerk enters an adjusting timecard with the expenditure ending date set to the previous week ending date and enters the following timecard lines to record this adjustment:

- -52 hours of straight time charged to the engineering survey project
- 50 hours of straight time charged to the engineering survey project
- -12 hours of overtime charged to the overtime project, Time and Half task
- 10 hours of overtime charged to the overtime project, Time and Half task

The net result of these lines is a reduction of 2 straight time hours, and a reduction of 2 overtime hours.

The two reversing lines must match the existing items entered the previous week, based on the employee, expenditure item date, expenditure type, project, and task, and must fully reverse the existing item.

Reversing Overtime

Another type of overtime adjustment may result if overtime hours are incorrectly charged to the wrong overtime task. To handle this, the timecard clerk reverses the incorrect item and enters a new item charged to the correct overtime task.

Assume Pat Miller's 12 overtime hours charged to the Time and Half overtime task, should have been charged to the Double Time overtime task. The timecard clerk enters two timecard lines:

- -12 hours of overtime charged to the overtime project, Time and Half task
- 12 hours of overtime charged to the overtime project, Double Time task

These two lines record the adjustment to correct the overtime hours entered.

Automatic overtime adjustments

Timecard clerks or employees enter straight time adjustment items that increase or reduce the number of hours worked during a week using the Expenditure Batches window. After these items are costed by the PRC: Distribute Labor Costs process, the Overtime Calculation extension or other client extensions identify the employees and weeks that may potentially have new overtime to process, sums the hours required to calculate overtime, and then calculates overtime.

See Also

Overtime Calculation Extension: page 19 – 50.

Integrating Commitments from External Systems

You can modify what Oracle Projects considers a committed amount for project status tracking. By default, Oracle Projects defines commitments as all project-related requisitions and purchase orders in Oracle Purchasing and supplier invoices in Oracle Payables that are not yet interfaced to Oracle Projects. This includes all approved and pending approval requisitions, purchase orders, and supplier invoices. You may want to include only approved requisitions and purchase orders in the committed cost amounts. See: *Integrating with Oracle Purchasing and Oracle Payables*: page 13 – 40.

You can also integrate commitments from an external system, other than Oracle Purchasing and Oracle Payables, for project status tracking.

You modify what is included as the commitment amounts by changing the view `PA_COMMITMENT_TXNS_V`, which Oracle Projects reads for the commitment transactions.

For more information about tracking commitments, see: *Project Summary Amounts*: page 9 – 11.

Default Configuration of Commitments View

The default configuration provided by Oracle Projects upon installation for the configurable commitments view, `PA_COMMITMENT_TXNS_V`, includes unions of the following views:

View Name	Description
<code>PA_PROJ_REQ_DISTRIBUTIONS</code>	All open requisitions in Oracle Purchasing, regardless of approval status.
<code>PA_PROJ_PO_DISTRIBUTIONS</code>	All open purchase orders in Oracle Purchasing, regardless of approval status.
<code>PA_PROJ_AP_INV_DISTRIBUTIONS</code>	All supplier invoices in Oracle Payables that are not yet interfaced to Oracle Projects.
<code>CST_PROJMFG_CMT_VIEW</code>	Project manufacturing-related commitments from Purchase Order receipts.

Table 18 – 7 (Page 1 of 2)

View Name	Description
PJM_PO_COMMITMENTS_V	Project manufacturing–related commitments from Purchase Orders (with destination type Inventory or Shop Floor).
PJM_REQ_COMMITMENTS_V	Project manufacturing–related commitments from Purchase Requisitions.

Table 18 – 7 (Page 2 of 2)

Modifying the Commitments View

You modify PA_COMMITMENT_TXNS_V to change how Oracle Projects track commitments.

► **To change the criteria for identifying commitments among requisitions and purchase orders (in Oracle Purchasing), and supplier invoices (in Oracle Payables):**

- Modify the default *select* or *where* clause statements in the view, or
- Substitute other Oracle Purchasing and Oracle Payables views as needed.
- To include commitments from an external system, create a new view called `pa_commitments_outside_system_v` to read your external commitments and include it in the `pa_commitment_txns_v` view.

Oracle Projects provides a template script that includes the view definition with an example of integrating commitments from an external system. The name of the script is `PACMTVW.sql` and is located in the Oracle Projects admin / sql directory.

Required Fields in External Commitments View

When you create the `pa_commitments_outside_system_v` view for external commitments, you must include the following columns in this view:

If you want the project currency `tot_cmt_burdened_cost` to be derived during the commitment summarization process, you must also populate the `acct_burdened_cost` and `denom_burdened_cost` columns.

Column	Type	Description
PROJECT_ID	NUMBER(15)	The identifier of the project
TASK_ID	NUMBER(15)	The identifier of the task
TRANSACTION_SOURCE	VARCHAR2(30)	Source of the commitment. Set this to OUTSIDE_SYSTEM
LINE_TYPE	VARCHAR2(1)	Type of the commitment line. Use one of the following values: R for requisitions P for purchase orders I for supplier invoices
EXPENDITURE_ITEM_DATE	DATE	The expenditure item date of the commitment
PA_PERIOD	VARCHAR2(20)	PA Period of the commitment. Use the current reporting period. See Determining Periods below
GL_PERIOD	VARCHAR2(15)	GL Period of the commitment. Use the GL period of the current reporting period. See Determining Periods below
ORGANIZATION_ID	NUMBER	The identifier of the expenditure organization
EXPENDITURE_TYPE	VARCHAR2(30)	The expenditure type. Use an expenditure type with an expenditure type class of Supplier Invoices.
EXPENDITURE_CATEGORY	VARCHAR2(30)	The expenditure category of the expenditure type
REVENUE_CATEGORY	VARCHAR2(30)	The revenue category of the expenditure type
SYSTEM_LINKAGE_FUNCTION	VARCHAR2(30)	The expenditure type class of the expenditure type. Set this to VENDOR_INVOICES
DENOM_CURRENCY_CODE	VARCHAR2(15)	The transaction currency code
DENOM_RAW_COST	NUMBER	The transaction currency raw cost
ACCT_RATE_TYPE	VARCHAR2(30)	The functional currency rate type

Table 18 – 8 (Page 1 of 2)

Column	Type	Description
ACCT_RATE_DATE	DATE	The functional currency exchange rate date
ACCT_EXCHANGE_RATE	NUMBER	The functional currency exchange rate
ACCT_CURRENCY_CODE	VARCHAR2(15)	The functional currency code
ACCT_RAW_COST	NUMBER	The functional currency raw cost

Table 18 – 8 (Page 2 of 2)

Determining PA and GL Periods

You should define your view to set the PA period and GL period to the current reporting period. To do this, include this statement in your view:

```
SELECT period_name
,      gl_period_name
,      ....
FROM   pa_periods p
,      ....
WHERE  p.current_pa_period_flag = 'Y'
AND    ....
```

Burdening Commitments

You can burden your commitment amounts using the burden schedule that you have assigned to the task for internal costing purposes. See: Burdening: page 5 – 16.

To burden the commitment amounts, you call the following functions in the select statement for the cost columns and the CMT_IND_COMPILED_SET_ID column of your view definition:

- `pa_burden_cmts.get_cmt_burdened_cost`
- `pa_burden_cmts.get_cmt_compiled_set_id`

Oracle Projects provides an example of burdening commitments in the file PACMTVW.sql in the Oracle Projects admin/sql directory.

The **`pa_burden_cmts.get_cmt_burdened_cost`** function calculates the total burdened cost. If it cannot calculate the burdened cost or

encounters an error, it returns the raw cost. You pass the following values to this function:

Parameter	Usage	Type	Description
X_task_id	IN	NUMBER	The identifier of the task
X_expenditure_item_date	IN	DATE	The expenditure item date
X_expenditure_type	IN	VARCHAR2	The expenditure type
X_organization_id	IN	NUMBER	The identifier for the expenditure organization
X_schedule_type	IN	VARCHAR2	The type of burden schedule. Set this to C
X_raw_cost	IN	NUMBER	The amount to be burdened

Table 18 – 9 (Page 1 of 1)

The **pa_burden_cmts.get_cmt_compiled_set_id** function determines the compiled set id, which identifies the set of burden multipliers used to calculate the burdened amount. You can use the compiled set ID for reporting individual burden components of the burdened cost. This value is only populated when you burden the costs. If this function cannot find the compiled set ID or it encounters an error, it returns null. You pass the following values to this function:

Parameter	Usage	Type	Description
X_task_id	IN	NUMBER	The identifier for the task
X_expenditure_item_date	IN	DATE	The expenditure item date
X_organization_id	IN	NUMBER	The identifier for the organization
X_schedule_type	IN	VARCHAR2	The type of burden schedule. Set this to C

Table 18 – 10 (Page 1 of 1)

Custom Reporting Using Project Summary Amounts

You can use project summary amounts for your custom project status inquiries and reports. Oracle Projects provides views and APIs for use toward this objective. To view the current reporting period for the project summary amounts, navigate to the PA Periods window and query the PA Period with the Reporting Period box checked.

See Also

Project Status Inquiry: page 9 – 2

Project Summary Amounts: page 9 – 11

Management Reports

You may need to modify Oracle Projects management reports, and write additional reports to monitor project status the way that your business requires. You can use existing Oracle Projects reports as templates to develop your own management reports.

All Oracle Projects reports are written using Oracle Reports, making it easier for you to customize reports.

Oracle Projects provides many views to make it easier to report summary and detail project information for Oracle Projects standard reports and custom reporting. Many of the standard reports use these reporting views.

Custom Reporting Summarization Views

Oracle Projects provides two sets of views for custom reporting on summarization summary amounts:

- Work Breakdown or WBS summarization views
- Resource summarization views

Both sets of views contain project and task-level summary amounts. The WBS summarization views have summary level amounts for projects and tasks. The resource summarization views have summary amounts by project and resource as well as task and resource.

Each set of views contains views with prior-period, period-to-date, year-to-date, inception-to-date, and project summary amounts for the following:

- actual costs and revenue
- revenue budgets
- cost budgets
- commitments

Work Breakdown Summarization Views

The WBS summarization views are as follows:

- `pa_accum_wbs_act_v`
WBS Summarization Actuals View: This view contains summary amounts of actual costs and revenue by project and task.
- `pa_accum_wbs_rev_bgt_v`
WBS Summarization Revenue Budget View: This view contains summary amounts of revenue budgets by project and task.
- `pa_accum_wbs_cost_bgt_v`
WBS Summarization Cost Budget View: This view contains summary amounts of cost budgets by project and task.
- `pa_accum_wbs_cmt_v`
WBS Summarization Commitments View: This view contains summary amounts of commitments by project and task.

These views also contain limited task information, such as project number and name, indented task numbers and names, task start and completion dates, and task manager name.

You can refer to the Oracle Projects Revenue, Costs, Budgets by Work Breakdown Structure Report as an example of how to use these views for reporting. See: Revenue, Costs, Budgets by Work Breakdown Structure: page 10 – 26.

Resource Summarization Views

The resource summarization views are as follows:

- `pa_accum_rsrc_act_v`

Resource Summarization Actuals View: This view contains summary amounts of actual costs and revenue by project and resource and task and resource.

- pa_accum_rsrc_rev_bgt_v

Resource Summarization Revenue Budget View: This view contains summary amounts of revenue budgets by project and resource and task and resource.

- pa_accum_rsrc_cost_bgt_v

Resource Summarization Cost Budget View: This view contains summary amounts of cost budgets by project and resource and task and resource.

- pa_accum_rsrc_cmt_v

Resource Summarization Commitments View: This view contains summary amounts of commitments by project and resource and task and resource.

You can refer to the following Oracle Projects reports for examples of how to use these views for reporting:

- Revenue, Costs, Budgets by Resources (Project Level): page 10 – 25
- Task – Revenue, Costs, Budgets by Resources: page 10 – 26

Custom Reporting Strategies with WBS and Resource Reporting Summarization Views

The following custom reporting strategies pertain to both sets of reporting summarization views.

Since both sets of views contain project and task–level summary amounts, you must be careful to select the appropriate rows:

- For project–level rows, the task_id is zero
- For task–level rows, the task_id is greater than zero

When designing the data model in Oracle Reports, you will need to consider the following information:

- Unless you create a higher–level view for one or more of the reporting summarization views, Oracle Projects requires separate query groups for each view used in a report.

Because of performance implications, higher–level views are not recommended.

- It will be necessary to drive the views off a table, such as the PA_TASKS table, for a WBS report or a resource list for a resource report.

- With respect to the budget views, there can be one or more budget rows for a given project, task, or resource

You may need to either join on the 'budget_type_code' or filter on it in a query group.

To report multiple budget types for each project or task, you must create a query group for each budget type

- If you design your data model to report by budget type and resource list, you can assume that only one resource list is assigned to each budget type

To facilitate resource list–driven reporting, Oracle Projects provides the view, 'pa_resource_list_members_v'. This provides the following functionality:

- A resource list with indented second–level resources within each respective resource group
- Columns to facilitate the ordering of resource groups and their related second–level resources

To use this view in your custom reports, you can add the following to the resource–list query:

- Use the 'alias' view column to automatically display an indented resource list
- Include an order–by clause, such as the following, to ensure the proper ordering of resource groups and related second–level resources:

order by parent_sort_order, sort_order

Actuals API

Oracle Projects also provides a package that contains an API to give you additional control for custom summarization reporting. You can use the API to get amounts by a specific Oracle Projects or Oracle General Ledger period, a specific range of Oracle Projects or Oracle General Ledger periods and by various transaction attributes as follows:

- Project, task, and resource combinations
- All levels of the project work breakdown structure
- Oracle Projects or Oracle General Ledger period

- Oracle Projects or Oracle General Ledger period ranges
- Various transaction attributes from the following:
 - employee
 - job
 - organization
 - supplier
 - expenditure type
 - event type
 - non-labor resource
 - expenditure category
 - revenue category
 - non-labor resource organization
 - event type classification
 - expenditure type classification

The name of the package is **pa_accum_api**, and the name of the procedure is **get_proj_accum_actuals**. You can get actual amounts only if you successfully ran the Update Project Summary process for the project.

This procedure returns the actual cost, revenue, and commitment amounts by:

Package.Procedure

The following table lists the parameters that Oracle Projects provides for the API, **pa_accum_api.get_project_accum_actuals**. (See files PAAAPIS.pls and PAAAPIB.pls under the admin directory.)

pa_client_extn_status.getcols			
Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	The identifier for the project
X_task_id	IN	NUMBER	The identifier for the task

Table 18 – 11 (Page 1 of 3)

Parameter	Usage	Type	Description
X_resource_list_member_id	IN	NUMBER	The identifier for the resource
X_period_type	IN	VARCHAR2	The identifier for the period type
X_from_period_name	IN	VARCHAR2	The identifier for the start period
X_to_period_name	IN	VARCHAR2	The identifier for the end period
X_person_id	IN	VARCHAR2	The identifier for the employee transaction attribute
X_job_id	IN	NUMBER	The identifier for the job transaction attribute
X_organization_id	IN	NUMBER	The identifier for the organization transaction attribute
X_vendor_id	IN	VARCHAR2	The identifier for the supplier transaction attribute
X_expenditure_type	IN	VARCHAR2	The identifier for the expenditure type transaction
X_event_type	IN	VARCHAR2	The identifier for the event type transaction attribute
X_non_labor_resource	IN	VARCHAR2	The identifier for the non-labor resource transaction attribute
X_expenditure_category	IN	VARCHAR2	The identifier for the expenditure category transaction attribute
X_revenue_category	IN	VARCHAR2	The identifier for the revenue category transaction attribute
X_non_labor_resource_org_id	IN	NUMBER	The identifier for the non-labor resource organization transaction attribute
X_event_type_classification	IN	VARCHAR2	The identifier for the event type classification transaction attribute
X_system_linkage_function	IN	VARCHAR2	The identifier for the expenditure type class function transaction attribute

Table 18 – 11 (Page 2 of 3)

Parameter	Usage	Type	Description
X_week_ending_date	IN	DATE	The identifier for the week ending date transaction attribute
X_revenue	INOUT	NUMBER	revenue amount
X_raw_cost	INOUT	NUMBER	raw cost amount
X_burdened_cost	INOUT	NUMBER	burdened cost amount
X_quantity	INOUT	NUMBER	quantity
X_labor_hours	INOUT	NUMBER	labor hours
X_billable_raw_cost	INOUT	NUMBER	billable raw cost amount
X_billable_burdened_cost	INOUT	NUMBER	billable burdened cost amount
X_billable_quantity	INOUT	NUMBER	billable quantity
X_billable_labor_hours	INOUT	NUMBER	billable labor hours
X_cmt_raw_cost	INOUT	NUMBER	commitment raw cost amount
X_cmt_burdened_cost	INOUT	NUMBER	commitment burdened cost amount
X_unit_of_measure	INOUT	VARCHAR2	unit of measure
X_err_stage	INOUT	VARCHAR2	error stage
X_err_code	INOUT	NUMBER	error code

Table 18 – 11 (Page 3 of 3)

Additional Information about Parameters

Using the Identifier for the Task

When retrieving project-level amounts, this parameter can be null.

Using the Identifier for the Resource

When retrieving aggregate project or task amounts, this parameter can be null.

Using the Identifier for the Period Type

You use this parameter to tell the procedure that you are expect summary amounts by either Oracle Projects or Oracle General Ledger period. Allowable values are as follows:

- 'P' for Oracle Projects Period
- 'G' for Oracle General Ledger Period

Using the From–Period Names and To–Period Names

You must pass these two parameters to the procedure with the following constraints:

- If the period type is Oracle Projects Period, then both period names must be Oracle Projects period names. Otherwise, Oracle General Ledger period names must be used for both parameters
- If you are retrieving amounts for one period, you must specify the same period name for both parameters
- For a range of periods, the from period name must be earlier than the to period name

Custom Reporting Strategies for Summarization API

To see how the API can be used for reporting, refer to the following Oracle Projects reports:

- Revenue, Cost, Budgets by Resources (Project Level)
- Task – Revenue, Cost, Budgets by Resources

Budget API

You can use the budget API for custom reporting. This API gets budget data for any baselined budget. You can get the budget data without running the Update Project Summary process.

The Budget API returns budget amounts by:

- Project, task, and resource combinations
- All levels of the project work breakdown structure
- All levels of the resource breakdown structure
- Oracle Projects or Oracle General Ledger period
- Oracle Projects or Oracle General Ledger period ranges
- Budget type

The Budget API can return summary amounts for budgets assigned to any level of the project and task work breakdown structure, providing you pass the task_id corresponding to the budgeted level to the Budget API. For example, if a project is budgeted at the top task and you pass a lower task to the Budget API, the Budget API will return zero budget amounts.

The name of the summarization package is **pa_accum_api** and the name of the budget procedure is **get_proj_accum_budgets**.

Package.Procedure

The following table lists the parameters that Oracle Projects provides for the Budget API, **pa_accum_api.get_proj_accum_budgets**.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	The identifier of the project.
X_task_id	IN	NUMBER	The identifier of the task. Set to zero if budgeting at the project level.
X_resource_list_member_id	IN	NUMBER	The identifier of the resource list member. The value is null for project and task combinations.
X_period_type	IN	VARCHAR2	The identifier for the PA or GL Period: 'P' for PA periods or 'G' for GL periods.
X_from_period_name	IN	VARCHAR2	The start period of the period range
X_to_period_name	IN	VARCHAR2	The end period of the period range.
X_budget_type_code	IN	VARCHAR2	The identifier of the budget type associated with the budget columns.
X_base_raw_cost	INOUT	NUMBER	Baseline raw cost budget
X_base_burdened_cost	INOUT	NUMBER	Baseline burdened cost budget
X_base_revenue	INOUT	NUMBER	Baseline revenue budget
X_base_quantity	INOUT	NUMBER	Baseline quantity budget. This column returns zero for project and task level combinations.
X_base_labor_quantity	INOUT	NUMBER	Baseline labor quantity
X_unit_of_measure	INOUT	VARCHAR2	Unit of measure. If the API finds multiple values, this column returns null. Otherwise, this column returns the unit of measure.

Table 18 – 12 (Page 1 of 2) Budget API Parameters

Parameter	Usage	Type	Description
X_orig_raw_cost	INOUT	NUMBER	Original raw cost budget
X_orig_burdened_cost	INOUT	NUMBER	Original burdened cost budget
X_orig_revenue	INOUT	NUMBER	Original revenue budget
X_orig_quantity	INOUT	NUMBER	Original quantity budget
X_orig_labor_quantity	INOUT	NUMBER	Original labor quantity
X_err_stage	INOUT	VARCHAR2	Error stage
X_err_code	INOUT	NUMBER	Error code

Table 18 – 12 (Page 2 of 2) Budget API Parameters

Setting Up for Multi-Currency Processing

This section describes the steps you need to take to use multiple currencies in Oracle Projects.

Enable Currencies You Want to Use

Before you can process transactions or billing in multiple currencies, you must enable the currencies that you plan to use, using the Currencies window in Oracle General Ledger. See: *Currencies Window (Oracle General Ledger User's Guide)*.

You also need to use Oracle General Ledger to set up and maintain the exchange rate types and exchange rates.

See: *Defining Conversion Rate Types and Entering Daily Rates (Oracle General Ledger User's Guide)*

Setting up Multi-Currency Transactions

To set up your system to process multi-currency transactions, perform the following steps:

Implementation Options

Use the Currency Implementation Options to control the default values for currency attributes at the operating unit level. Oracle Projects uses the currency attributes to calculate currency exchange rates. See: *Currency Implementation Options*; page 17 – 60.

Project Multinational Options

For each project for which you want to process multi-currency transactions, set up the Multinational Information options in the project and task options window. These options enable you to enter default currency attributes for a project, and to specify whether the project allows charges from other operating units. See: *Multinational Setup*; page 2 – 45.

Task Multinational Options

You can use the Task Multinational Options to override the project options in a lowest task. See: *Multinational Setup*; page 2 – 45.

Processing

Transaction Entry and Transaction Import

During Transaction Entry and Transaction Import, you can override the project and task currency attributes. See: *Entering Expenditures*: page 4 – 14 and *Loading Foreign Currency Transactions*: page 14 – 20.

Setting up Multi-Currency Billing

To set up your system to process invoices in currencies different from the project currency, perform the following steps:

Define Invoice Currency Attributes for Project Templates and/or Projects.

In the Customers and Contacts options window, enter the project customer invoice currency attributes.

You can override the project template values when you set up a new project. You can also change the attributes at any time. Changes affect the processing of future project invoices only (not invoices that are already generated). In addition, changes to a project's currency attributes do not affect the currency attributes of credit memos, write-offs, or cancellations of invoices that are generated before the attributes were changed.

See: *Customers and Contacts*: page 2 – 43.

Processing

Reviewing Invoices

Before you release an invoice, you can use the Invoice Review windows to change the invoice currency attributes (if you are permitted under the project security to do so). The Invoice Review windows display the amounts in the invoice currency and project currency.

Generating Invoices

The Generate Draft Invoices process generates invoices in the project currency, then converts them to the invoice currency, based on the Project Customer setup.

Implementing Oracle Projects for Integration With Other Applications

The following topics are discussed in this section:

Updating Profile Options for Integration with Other Products: page 18 – 46

Implementing Oracle Payables for Oracle Projects Integration: page 18 – 50

Implementing Oracle Purchasing for Oracle Projects Integration: page 18 – 54

Implementing Oracle Receivables for Oracle Projects Integration: page 18 – 55

Implementing Activity Management Gateway for Oracle Projects Integration: page 18 – 71

Updating Profile Options for Integration With Other Products

When you implement integration with other Oracle Products, your System Administrator needs to update the following profile options in the System Profile Values Window. See: *Setting User Profile Options Oracle Applications System Administrator's Guide*.

Payables and Purchasing

- PA: Allow Override of PA Distributions in AP / PO
- PA: Default Expenditure Organization in AP / PO
- PA: Tasks to Display for Expenditure Entry

Payables Only

- PA: Summarize Expense Report Lines

Receivables Only

- PA: Receivables Invoice Line UOM
- AR: Tax: Allow Ad Hoc Tax Changes

- AR: Tax: Allow Override of Customer Exemptions
- AR: Tax: Allow Override of Tax Code
- AR: Use Invoice Accounting For Credit Memos
- AR: Transaction Flexfield QuickPick Attribute

General Ledger

- GL: Set of Books Name

Self-Service Expenses

- PA: AutoApprove Timesheets

Self-Service Time

- PA: AutoApprove Expense Reports

Activity Management Gateway

- PA: Licensed to Use AMG

Oracle Project Analysis Collection Pack

- PA: ADW Collect Top Tasks
- PA: ADW Installed
- PA: Collection Pack Licensed

See Also

Profile Options in Oracle Projects: page B – 2

Profile Options: page 17 – 234

Fremont Corporation sets the PA: Allow Override of PA Distributions in AP / PO profile option to *No* because they do not want end users to override the Projects distributions created in Oracle Payables and Oracle Purchasing.

Option

User Setting

PA: Allow Override of PA Distributions in AP / PO No

Fremont Corporation sets the PA: Default Expenditure Organization in AP / PO profile option to *Fremont Corporation*.

Option

User Setting

PA: Default Expenditure Organization in AP / PO Fremont Corporation

Fremont Corporation sets the PA: Tasks to Display for Expenditure Entry to *Chargeable Tasks*, because they want the task's list of values to display only a project's chargeable tasks when users are entering expenditures online (pre-approved expenditures in Oracle Projects, purchase orders and requisitions in Purchasing, or supplier invoices in Payables).

Option

User Setting

PA: Tasks to Display for Expenditure Entry Chargeable Tasks

Fremont Corporation sets the PA: Summarize Expense Report Lines profile option to *Yes* because they want expense report lines in any given expense report to be summarized by code combination ID when users transfer expense reports to Payables.

Option

User Setting

PA: Summarize Expense Report Lines Yes

Fremont Corporation sets the PA: Receivables Invoice Line UOM profile option to *Each* after defining a unit of measure of *Each* in Oracle Receivables.

Option

User Setting

PA: Receivables Invoice Line UOM Each

Fremont Corporation sets the AR: Tax: Allow Ad Hoc Tax Changes profile option to *No* because they do not want to enable end users to change tax rates in the Transactions window in Receivables.

<i>Option</i>	<i>User Setting</i>
AR: Tax: Allow Ad Hoc Tax Changes	No

Fremont Corporation sets the AR: Tax: Allow Override of Customer Exemptions profile option to *No* to prevent users from overriding the default tax exemption on invoice lines in Oracle Projects.

<i>Option</i>	<i>User Setting</i>
AR: Tax: Allow Override of Customer Exemptions	No

Fremont Corporation sets the AR: Tax: Allow Override of Tax Code profile option to *Yes*, to allow users to override the default tax code on invoice lines in Oracle Projects.

<i>Option</i>	<i>User Setting</i>
AR: Tax: Allow Override of Tax Code	Yes

Fremont Corporation sets the AR: Use Invoice Accounting For Credit Memos profile option to *No*.

<i>Option</i>	<i>User Setting</i>
AR: Use Invoice Accounting For Credit Memos	No

Fremont Corporation sets the AR: Transaction Flexfield QuickPick Attribute to *INTERFACE_HEADER_ATTRIBUTE1*, since they want the project number to appear as the project attribute displayed in QuickPicks in Oracle Receivables.

<i>Option</i>	<i>User Setting</i>
AR: Transaction Flexfield QuickPick	INTERFACE_HEADER_ATTRIBUTE1

Fremont Corporation sets the GL: Set of Books Name profile option to *Fremont Corporation*.

<i>Option</i>	<i>User Setting</i>
GL: Set of Books Name	Fremont Corporation

Implementing Oracle Payables for Projects Integration

You can import Projects expense reports into Payables so that you can use Payables to pay them. You can also use supplier and invoice information you enter in Payables to create expenditure items for projects in Oracle Projects. You need to complete the following steps to integrate Oracle Payables with Oracle Projects:

- Defining Payables Options: page 18 – 51
- Updating Profile Options for Integration with other Products: page 18 – 46
- Implementing the Account Generator for Oracle Projects: page 17 – 306
- Defining Project Related Distribution Sets: page 18 – 53

Read this section in conjunction with the set up steps for Oracle Payables in the *Oracle Payables User's Guide*.

See Also

Integrating Expense Reports with Oracle Payables: page 13 – 21

Integrating Oracle Purchasing and Oracle Payables: page 13 – 40

Oracle Projects Implementation Checklist for Oracle Projects Integration: page 17 – 20

Defining Payables Options

When you integrate Oracle Projects with Payables, you define the following options in the Expense Reports region of the Payables Options window of Oracle Payables.

You import Oracle Projects expense reports to Payables and then use Payables to pay the expense reports. The employee must be a supplier to successfully import expense reports. You can either manually enter all employees as suppliers, or you must enable the Automatically Create Employee as Supplier Payables option. If you enable the option, you can set defaults for the suppliers that the system creates during Invoice Import.

Automatically Create Employee as Supplier

If you do not manually enter employees as suppliers, enable the Payables option for automatically creating suppliers from employee information. If you enable this option, Payables enters the employee as a supplier the first time it imports an expense report for the employee. Payables Invoice Import cannot create invoices from expense reports if the employee is not a supplier and you have not enabled this Payables option.

Terms/Pay Group/Payment Priority

If you enable the Automatically Create Employee as Supplier option in the Expense Report Payables Options, Oracle Payables will use the default values you supply to create the supplier records during Invoice Import.

Apply Advances

This option determines the default value for the Apply Advances option in the Expense Report window. If you enable this option, Oracle Payables applies advances to employee expense reports if the employee has any outstanding paid advances.

Hold Unmatched Expense Report Invoices

If you enable the Automatically Create Employee as Supplier Payables option, this option defaults for the suppliers and supplier sites Payables creates during Invoice Import. When this option is enabled for a supplier site, Payables requires that you match each invoice for a supplier site to a purchase order.

See Also

Payables Options *Oracle Payables User's Guide*

Suppliers *Oracle Payables User's Guide*

Integrating Expense Reports with Oracle Payables: page 13 – 21

Fremont Corporation's accounting department prefers to have Oracle Payables create supplier entries for employees who submit expense reports.

Payables Option

Automatically Create Enabled
Employee as Supplier

Defining Project–Related Distribution Sets

In the Distribution Sets window of Oracle Payables, you can define project–related distribution sets. When you assign a project–related distribution set to an invoice you are entering, Payables automatically creates project related invoice distributions for the invoice.

See Also

Distribution Sets *Oracle Payables User's Guide*

Implementing Oracle Purchasing for Projects Integration

Oracle Projects integrates with Oracle Purchasing to allow you to report committed costs and obligations against your projects. Using Oracle Purchasing, you can enter project-related requisitions and purchase orders, and then report committed costs of requisitions and purchase orders that are outstanding against your projects in Oracle Projects.

Your implementation of Oracle Purchasing involves the following steps. You will complete these steps during Payables integration:

- Updating Profile Options for Integration With Other Products: page 18 – 46
- Using the Account Generator in Oracle Projects: page 17 – 302

If you have Oracle Purchasing installed, read this section in conjunction with the set up steps for Oracle Purchasing in the *Oracle Purchasing User's Guide*.

See Also

Oracle Projects Implementation Checklist for Oracle Projects Integration: page 17 – 20

Integrating Oracle Purchasing and Oracle Payables: page 13 – 40

Implementing Oracle Receivables for Oracle Projects Integration



Attention: Skip this section if you are implementing Oracle Project Costing. The implementation steps for Oracle Receivables in this section are not a part of your implementation process.

Oracle Projects interfaces with Oracle Receivables to process your invoices and track customer payments.

Your implementation of Oracle Receivables for use with Oracle Projects involves the following areas:

- Specifying system options: page 18 – 56
- Defining transaction types for invoice processing: page 18 – 57
- Updating profile options for integration with other products: page 18 – 46
- Defining Automatic Accounting in Oracle Receivables: page 18 – 60
- Defining Salespersons and Credit Types: page 18 – 61

Oracle Projects predefines all of the information required for the Oracle Receivables AutoInvoice program to process Oracle Projects invoices.

If you have installed Oracle Receivables, read this section in conjunction with the set up steps for Oracle Receivables in the *Oracle Receivables User's Guide*.

See Also

Oracle Projects Implementation Checklist: page 17 – 20

Integrating with Oracle Receivables: page 13 – 60

Defining Receivables Options

Start by specifying the system parameters for Oracle Projects. If you have installed the standalone version of Oracle Projects installed, these system parameters provide default values required for customer entry.

Use the System Options window to view and update the system options used by Oracle Receivables. See: System Options *Oracle Receivables User's Guide*.

Purge Interface Tables Option

You set up Oracle Receivables AutoInvoice to purge rows from its interface tables. When you tie back invoices, Oracle Projects processing requires that successfully processed rows be purged from the Receivables interface tables. To do so, enable the *Purge Interface Tables* option for Oracle Projects. This option is located in the AutoInvoice zone of the Invoices and Customers region.

Require Salesrep Option

If you are interfacing salesrep information, enable the *Require Salesrep* option. This option is located in the Miscellaneous region.

For more setup information, see: Salesreps and Credit Types: page 18 – 61.

Fremont Corporation’s implementation team enables the Purge Interface Tables option.

Invoice Options

<i>Purge Interface Tables</i>	Enabled

Fremont Corporation’s implementation team disables the Require Salesrep option.

Invoice Options

<i>Require Salesrep</i>	Disabled

Defining Transaction Types for Invoice Processing

Oracle Projects generates draft invoices and uses Oracle Receivables features to post them to Oracle General Ledger, and maintain and track customer payments on them. Oracle Receivables uses transaction types to determine whether the transaction generates an open receivable balance and whether it posts to Oracle General Ledger.

Oracle Projects predefines two transaction types to process your invoices in Oracle Receivables:

- An invoice transaction type (*Projects Invoice*)
- An invoice credit memo transaction type (*Projects Credit Memo*)

Before you make changes to the transaction types for invoicing, verify that the predefined PROJECTS INVOICES Batch Source is accurate. You should see the following values:

Name:	PROJECTS INVOICES
Description:	Project Accounting Invoices
Type:	Imported
Active:	Yes
Automatic Batch Numbering:	No
Automatic Invoice Numbering:	No
Standard Transaction Type:	Projects Invoice
Credit Memo Batch Source:	NULL

Oracle Projects assigns a transaction type to an invoice transaction in one of the ways described below.

If you enable tax calculation through Oracle Receivables, you should enable tax calculation on the transaction types defined for Oracle Projects.

Implementing Decentralized Invoicing

With decentralized invoicing, you allow organizations to process their own invoice collections. Oracle Projects and Oracle Receivables provide you with a way to easily report and query invoices in Oracle Receivables by organization.

When you interface draft invoices to the Oracle Receivables interface tables, Oracle Projects locates the project managing organization and moves up the organization hierarchy "tree" to the lowest-level Project

Invoice Collection organization at or above the project managing organization to assign the appropriate transaction type to each invoice.

After validation, the AutoInvoice Import Program moves the draft invoices and their assigned transaction types into the Oracle Receivables invoice tables. When you use this method, you can run reports and process Oracle Receivables invoices by organization by selecting the Project Invoice Collection organization name for the transaction type parameter.

► **To implement decentralized invoicing:**

1. Determine which organizations process invoices.
2. Define those organizations with the Project Invoice Collection Organization classification enabled. See: Organizations: page 17 – 35.
3. Define or update the Project / Task Owning Organization Hierarchy to include the relevant Project Invoice Collection organizations. See: Organization Hierarchy: page 17 – 40.
4. Disable the Centralized Invoice Processing check box when you define implementation options for Oracle Projects. See: Billing Implementation Options: page 17 – 65.
5. Run the IMP: Create Invoice Organization Transaction Types process.

This process defines transaction types for you in Oracle Receivables:

- The transaction types have the same name as the project invoice collection organization in the base language. See: Multilingual Support in Oracle Projects: page 15 – 58.
- You can rerun the process any time you add new organizations or change organization names.

If you specify an organization type in the Invoice Processing Organization Level of the Billing Implementation Options, you must run the IMP: Create Invoice Organization Transaction Types process before you can successfully interface invoices from Oracle Projects.

Implementing Centralized Invoicing

With centralized invoicing, one group or organization processes all invoices. All Oracle Projects invoices are created in Oracle Receivables

with the same invoice type of *Projects Invoice* or *Projects Credit Memo* for the processing operating unit.

If you select Centralized Invoicing (the system default) in Oracle Projects Implementation Options, Oracle Projects assigns the default transaction types assigned to the invoice batch source specified in the Oracle Projects implementation options.

The predefined transaction types are the default transaction types of the Projects invoice batch source. After validation, AutoInvoice assigns the default values from the invoice batch source to invoices and copies those transaction types into the invoice tables.

AR Transaction Type Extension

You can also use the AR Transaction Type Extension to determine the AR transaction type when you interface invoices to Oracle Receivables. See: AR Transaction Type Extension: page 19 – 105. You can use this extension whether you use centralized or decentralized invoicing.

See Also

Create Invoice Organization Transaction Types : page 11 – 12

Implementation Options: page 17 – 57

Importing Transactions Using AutoInvoice *Oracle Receivables User's Guide*.

Defining Automatic Accounting in Oracle Receivables

Because the Automatic Accounting feature in Oracle Receivables is different from the AutoAccounting feature in Oracle Projects, you need to define Automatic Accounting for both Oracle Receivables and Oracle Projects.

The Oracle Receivables Automatic Accounting feature determines default general ledger accounts for your invoice transactions. You need to implement Oracle Receivables AutoAccounting before you can run the Oracle Receivables AutoInvoice feature.

However, Oracle Projects invoices do not use the AutoAccounting transactions created by Oracle Receivables. The accounting transactions determined by the AutoAccounting feature in Oracle Projects are passed to the AutoInvoice interface tables and are used by AutoInvoice when creating invoices in Oracle Receivables. The only AutoAccounting codes in Oracle Receivables that are used for Oracle Projects invoices are those for tax. If you use AutoInvoice to import invoices from another source, you need to define AutoAccounting codes that apply to those invoices.

You use the Oracle Receivables Accounting window to set up automatic account codes for the following account types. You need to define account codes for each account type.

- AutoInvoice Clearing
- Freight
- Receivable
- Revenue
- Tax
- Unbilled Receivable
- Unearned Revenue

You provide specific information to indicate how you want Oracle Receivables to generate the account codes.

See Also

Automatic Accounting *Oracle Receivables User's Guide*

Salesreps and Credit Types

You can interface sales credit information for project invoices to Oracle Receivables for sales commission reporting. If you choose to not interface sales credit information to Oracle Receivables, you can use credit receiver information in Oracle Projects for reporting purposes. This essay describes how to implement Oracle Receivables and Oracle Projects for the method your company chooses.

Transferring Sales Credit to Oracle Receivables

If you want to interface sales credit information to Oracle Receivables, during your implementation of Oracle Receivables for Oracle Projects, you enable the Require Salesrep option in the System Options window. This section continues your implementation of sales credit receivers.

You can interface sales credit information to Oracle Receivables for project invoices. Sales credit information is based on credit receivers you enter in Oracle Projects. If you interface sales credits to Oracle Receivables, the credit receiver must be a salesrep in Oracle Receivables and the credit type must be a sales credit type in Oracle Receivables.

You enter credit receivers at the project level using the Credit Receivers window located under the Billing Information option. You interface the information to Oracle Receivables by enabling the Transfer to AR option.

Set the Require Salesrep option

If you want to interface sales credit information to Oracle Receivables, enable the Require Salesrep option in the System Options window in Oracle Receivables.

Define sales credit types

You use the Oracle Order Management Sales Credit Types window to define the type of credit you want to allocate to salesreps in Oracle Receivables for project invoices. You can use sales credit types to determine if sales credit is a quota or non-quota amount. See: *Defining Sales Credit Types Oracle Order Management User's Guide*.

If you do not have Oracle Order Management installed, use the predefined sales credit type of Quota Sales Credit when you define salesreps. Using this sales credit type allows you to use sales credits without having Oracle Order Management installed.

Define salesreps

When you interface Oracle Projects invoices to Oracle Receivables, Oracle Projects assigns a primary salesrep to the invoice and interfaces sales credit lines for the invoice based on the project's credit receivers.

Oracle Projects assigns the project manager on the project as the primary salesrep as long as the project manager is defined as a salesrep in Oracle Receivables. Using the primary salesrep as the criteria, you can use Oracle Receivables reports and windows to review invoices by project manager. If you want to use this type of functionality, you must define all project managers as salesreps in Oracle Receivables.

Oracle Projects also credits the sales credit lines for the invoice using the project's credit receivers specified for interface to Oracle Receivables. You must define all employees that may be credit receivers for which you want to interface sales credit as salesreps in Oracle Receivables.

Use the Oracle Receivables Salesreps window to define salesreps. You assign a sales credit type to salesreps when you define them.



Attention: The name you enter in the Salesreps window must be identical to the name you enter in the Oracle Human Resources Enter Person window. Use the following format when you define salesreps: Last name, Prefix, First name (Middle name).

Set the Allow Sales Credits option

If you want to send salesrep information to Oracle Receivables, you need to enable the *Allow Sales Credits* option in the Invoice Sources window for the predefined batch source of *PROJECTS INVOICES*. When you set this option to Yes, Oracle Receivables ensures that sales credit lines are assigned valid credit types as defined in Oracle Order Management and have valid salesreps as defined in Oracle Receivables.

The Allow Sales Credit option is located in the AutoInvoice Processing Options region of the Invoice Sources window. If you navigate to the Batch Source region and query by Name = *PROJECTS INVOICES*, you will then be able to go to the AutoInvoice Processing Options region. The AutoInvoice Processing Options region is only available for batch sources with type = *Imported*. See also: Define Invoice Sources *Oracle Receivables User's Guide*.

► To transfer sales credit information to Oracle Receivables:

1. Set the Require Salesrep System Option in Oracle Receivables to Yes.

2. Define sales credit types using the Oracle Order Management Sales Credit Types form, or use the predefined sales credit type of Quota Sales Credit, if Oracle Order Management is not installed.
3. Define as salesreps in Oracle Receivables all project managers and other employees who may be credit receivers.
4. Enable the Allow Sales Credits option in the AutoInvoice Processing Options region of the Invoice Sources window in Oracle Receivables.
5. Enter credit receivers for your contract projects using the Credit Receivers windows in the Billing Information option at the project level.

See Also

Employees: page 17 – 51

Reporting Credit Information in Oracle Projects

You can assign credit receivers in Oracle Projects for invoices at the project level, using credit types that you define in Oracle Projects. You do not have to interface salesrep credit information to Oracle Receivables; you can use Oracle Projects tables to create custom reports on the information.

You use credit receivers in Oracle Projects to award different kinds of revenue credit to your employees, such as marketing credit or quota credit. For example, if you want to credit an employee for bringing in a contract in a market sector for which you currently have few or no projects, you can define a credit type with a name such as *Diversity Credit*. After you define the project, you specify the employee as a credit receiver of Diversity Credit.

Disable the Require Salesrep option

If you do not want to interface sales credit information to Oracle Receivables, during your implementation of Oracle Receivables for Oracle Projects disable the Require Salesrep option of the Define System Options window.

Define Credit Types

You use the Oracle Projects Credit Types window to specify the kind of revenue credit you want to assign employees in Oracle Projects. Oracle Projects predefines the credit type of Quota Credit. See: Credit Types: page 17 – 160.

Fremont Corporation awards Marketing Credit to a marketing staff member who generates a lead. Fremont also awards Quota Credit to a staff member who brings in a project.

<i>Name</i>	<i>Description</i>
Marketing Credit	Credit for generating leads
Quota Credit	Credit for acquiring a project

Set the Allow Sales Credits option

If you do not want to send sales credit information to Oracle Receivables, you leave this option set to No. See also: Define Invoice Sources *Oracle Receivables User's Guide*.

Fremont Corporation's implementation team enables the Allow Sales Credits option.

Miscellaneous Options

Allow Sales Credits Disabled

Define Salesreps

Oracle Projects assigns the primary salesrep as the manager on the project, if you have defined the project manager as a salesrep in Oracle Receivables. Using the primary salesrep as the criteria, you can use Oracle Receivables reports and forms to review invoices by project manager. If you want to use this type of functionality, you must define all project managers as salesreps in Oracle Receivables.



Attention: The name you enter in the Salesreps window must be identical to the name you enter in Oracle Human Resources Enter Person window. Use the following format when you define salesreps: Last Name, Title, First name (Middle Name).

► To report sales credit information in Oracle Projects only:

1. Set the Require Salesrep System Option in Oracle Receivables to No.

2. Define sales credit types using the Oracle Projects Credit Types form.
3. Define all project managers as salesreps in Oracle Receivables. This way you can still retrieve AR information by primary salesrep in Oracle Receivables.
4. Leave the Allow Sales Credits option in the AutoInvoice Processing Options region of the Invoice Sources window in Oracle Receivables disabled.
5. Create custom reports on the credit receiver information in the Oracle Projects table.

Applying Tax to Project Invoices

Oracle Projects and Oracle Receivables allow you to tax customers based on tax requirements of your company, your customers, and tax authorities.

Customers and tax authorities may have many different tax requirements. For example:

- A customer may be tax exempt for all services provided.
- A tax authority may require taxing all labor and materials.
- A tax authority may require that only labor is taxed.

Oracle Projects lets you specify, on a line-by-line basis, the tax information assigned to each invoice line.

Output Tax

Output Tax is a term used in this guide for tax on customer invoices. Depending on your Receivables setup, tax on customer invoices can be either sales tax or Value Added Tax (VAT).

Value Added Tax (VAT) is imposed on the supply of goods and services paid for by the consumer, but collected at each stage of the production and distribution chain. Any VAT paid on a vendor invoice is called Input Tax. The amount due each period can be described as follows:

$\text{Amount Due} = \text{Output Tax} - \text{Input Tax}$

Setting Up Invoice Line Tax Codes

To create default output tax information in Oracle Projects invoice lines, you must define the following information in Oracle Receivables and in Oracle Projects.

Tax Setup in Oracle Receivables

Define taxing in Oracle Receivables.

Tax Method: You can tax Oracle Projects invoices using the tax method of Sales Tax, which is based on customer shipping addresses, or Value Added Tax, which is based on the hierarchy you set up in Oracle Projects. Use the Tax System Options window in Oracle Receivables to

choose a tax method of Sales Tax or VAT Tax. See: Tax System Options (*Oracle Receivables User's Guide*).

Tax Codes and Rates: Enter tax codes and their associated rates. See: Tax Codes and Rates (*Oracle Receivables User's Guide*).

Tax Authorities: Tax authorities represent a unique combination of locations. See: Tax Authorities (*Oracle Receivables User's Guide*).

Tax Exemptions: Define tax exemptions to fully or partially exempt a customer or customer site from specific tax codes. See: Tax Exemptions (*Oracle Receivables User's Guide*).

Tax Groups: Use the Tax Groups window to group multiple, conditional taxes under one name. See: Tax Groups (*Oracle Receivables User's Guide*).

For more information about how Oracle Receivables handles tax, see: Calculating Tax (*Oracle Receivables Tax Manual*).

Define Receivables Profile Options

Define the following Oracle Receivables profile options. You can set these options at the site, application, responsibility, and user levels.

- **Tax: Allow Override of Tax Code**
- **Tax: Allow Override of Customer Exemptions**

See: Profile Options in Oracle Projects: page B – 2 and Profile Options (*Oracle Receivables User's Guide*).

Review Receivables transaction types.

During the Interface Invoices to Receivables process, Oracle Projects assigns a Receivables transaction type to each invoice.

These transaction types have the Tax Calculation attribute disabled by default. The Tax Calculation attribute works as follows:

- If the Tax Calculation attribute is enabled, Receivables imports tax information on invoice lines and calculates tax for the associated invoice line.

When this attribute is enabled, the tax information is required on invoice lines. If the tax information is not present on the customer invoice, then the Interface Invoices to Receivables process rejects the invoice. You must then update the tax information on the invoice lines in the Invoice Review windows and rerun the interface process.

- If the Tax Calculation attribute is disabled, the Interface Invoices to Receivables process does not check to see if tax information is required on invoice lines. Receivables imports the tax information on invoice lines, but does not calculate tax amounts.

Review these transaction types and ensure that the Tax Calculation attribute is set correctly for your business needs.

See: Transaction Types (*Oracle Receivables User's Guide*); Create Invoice Organization Transaction Types: page 11 – 12; Defining Transaction Types for Invoice Processing: page 18 – 57.

Tax Setup in Oracle Projects

To set up Oracle Projects to derive output tax codes for invoice lines:

Set up the tax default hierarchy.

Use the Tax Defaults implementation options window to set up a hierarchy order for the system to use when it derives the default output tax codes for invoice lines. See: Implementation Options: page 17 – 57 and Tax Defaults: page 17 – 68.

Enter default tax codes at multiple levels.

Enter default tax codes at the levels you are using in your tax default hierarchy.

- Customer Site Level:

In the Customer Business Purpose Detail window, you can enter a default output tax code. See: Entering Customers (*Oracle Receivables User's Guide*).

If this source is used, the following logic determines the tax code selected at the customer site level:

- If a tax code is defined at the customer ship to site, that tax code is used.
- If no tax code is defined at the customer ship to site, the tax code for the customer bill to site is used.

- Customer Level:

You can enter a default tax code in the Classification region of the Customers window. See: Entering Customers (*Oracle Receivables User's Guide*).

- **Project Level:**

In the Billing Setup project option window, you can enter a default tax code for normal billing. See: Project Options: Billing Setup: page 2 – 51.

- **Expenditure Type Level:**

In the Expenditure Types window, you can enter a default tax code for each expenditure type. See: Defining Expenditure Types: page 17 – 88.

- **Event Type Level:**

In the Event Types window, you can enter a default tax code for each event type. See: Defining Event Types: page 17 – 162.

- **Retention Level:**

In the Billing Setup project option window, you can enter a default tax code for retention billing. See: Project Options: Billing Setup: page 2 – 51.

- **Oracle Receivables System Options:**

You can enter information in the Receivables tax system options to determine default tax information. See: Tax System Options *Oracle Receivables User's Guide*.

See Also

Setting Up Invoice Line Tax Codes: page 18 – 66

Customize the Output Tax client extension (optional).

To address the unique requirements of your business, Oracle Projects provides the Output Tax client extension. You can use this extension to implement and automate company-specific rules for assigning a default tax code to an invoice line. For more information, see: Output Tax Extension: page 19 – 108.

Processing Taxable Invoice Lines

To process taxable customer invoices, you perform the following steps in Oracle Projects:

Generate an invoice

The Generate Draft Invoices process groups expenditure items, events, and retention into invoice lines based on the invoice formats and tax defaults hierarchy. The process assigns default tax codes based on the Tax Defaults hierarchy you define in Oracle Projects.

The process assigns tax exemptions based on the exemptions you have defined for the Customer or Customer Site.

Review invoice line tax information

You can review the tax information in the draft invoice lines using the Invoice Review windows. You can override invoice line tax information using these windows, if you are permitted to do so by the Receivables profile options, and project security.

After you release an invoice, you cannot change the tax information.

See: Reviewing Invoices: page 8 – 58

Interface Invoices to Oracle Receivables

After you release an invoice, you interface invoices to Oracle Receivables. The Interface Invoices to Receivables process moves invoice lines and tax information to the Oracle Receivables interface tables.

The Oracle Receivables AutoInvoice process creates invoices in Oracle Receivables from the invoice lines in the interface table.

Oracle Receivables stores the tax information for each invoice. Depending on the tax information, Receivables does the accounting and calculates the tax rates and amounts.

Report and view tax information

You can report company tax liabilities using Oracle Receivables reports.

You can print tax information on a customer invoice using the Oracle Receivables invoice printing program or using a custom invoice printing program that reports tax information from the Oracle Receivables invoice tables.

Implementing Activity Management Gateway for Oracle Projects Integration



Attention: Oracle Activity Management Gateway is not included in the Oracle Projects product. You cannot use any of the features described in this section until you have purchased and are a licensed user of Oracle Activity Management Gateway.

You can use Oracle Activity Management Gateway (AMG) to integrate Oracle Projects with non-Oracle applications. Share projects, budgets, resources, actuals, and percent complete data between your systems while preserving controls you have defined in each application.

Your implementation of AMG involves steps that you must perform within Oracle Projects. You can write PL/SQL code to develop your own integration application, or you can purchase an existing integration application. Whether you create a new or use an existing application, complete the following steps to implement AMG:

- Updating Profile Options for Integration with other Products: page 18 – 46
- Defining the external application as a source product
- Restricting access (query or update) to data originating from the source product (optional)

If you use AMG, read this section in conjunction with the setup steps for AMG in the *Oracle Activity Management Gateway Technical Reference Manual*.

See Also

Oracle Projects Implementation Checklist: page 17 – 20

Control Actions Window: page 14 – 4

Source Products Window: page 14 – 5

CHAPTER

19

Client Extensions

This chapter describes everything you need to know about designing and writing client extensions in Oracle Projects.

Client Extensions

Use client extensions to extend the functionality of Oracle Projects. You can automate your company's business rules within the standard processing flow of Oracle Projects, without having to customize the software.

Alphabetical List of Client Extensions

Table 19 – 1 lists the client extensions. The package specification and body (template procedure) files are stored in the Oracle Projects admin/sql directory.

Client Extension	Package Specification File	Package Body File
Allocation: page 19 – 129	PAPALCCS.pls	PAPALCCB.pls
AR Transaction Type: page 19 – 105	PAXITRXS.pls	PAXITRXB.pls
Asset Assignment: page 19 – 144	PAPGALCS.pls	PAPGALCB.pls
AutoApproval: page 19 – 142	PAXPTEES.pls	PAXTEEB.pls
Automatic Invoice Approve/Release: page 19 – 105	PAXPIACS.pls	PAXPIACB.pls
Billing Cycle: page 19 – 98	PAXIBCXS.pls	PAXIBCB.pls
Billing Extensions: page 19 – 67	PAXITMPS.pls	PAXITMPB.pls
Budget Calculation: page 19 – 14	PAXBCECS.pls	PAXBCECB.pls
Budget Verification: page 19 – 116	PAXBCECS.pls	PAXBCECB.pls
Budget Workflow: page 19 – 119	PAWFBCECS.pls	PAWFBCEB.pls
Burden Costing: page 19 – 56	PAXCCEBS.pls	PAXCCEBB.pls
Commitment Changes: page 19 – 58	PACECMTS.pls	PACECMTB.pls
Cost Accrual Billing: page 8 – 93	PAXICOSS.pls	PAXICOSB.pls
Cost Accrual Identification: page 19 – 165	PAICPCAS.pls	PAICPCAB.pls
Costing	PAXCHCES.pls	PAXCHCEB.pls
Descriptive Flexfield Mapping: page 19 – 60	PAPDFFCs.pls	PAPDFFCB.pls

Table 19 – 1 Client Extensions (Page 1 of 2)

Client Extension	Package Specification File	Package Body File
Labor Billing: page 19 – 46	PAXICTMS.pls	PAXICTMB.pls
Labor Costing: page 19 – 31	PAXCCECS.pls	PAXCCECB.pls
Labor Transaction: page 19 – 34	PAXCCETS.pls	PAXCCETB.pls
Overtime Calculation: page 19 – 50	PAXDLCOS.pls	PAXDLCOB.pls
Output Tax: page 19 – 108	PAXPOTXS.pls	PAXPOTXB.pls
Percent Complete Billing	PAXPCTS.pls	PAXPCTB.pls
Project Security: page 19 – 11	PAPSECXS.pls	PAPSECXB.pls
Project Status Inquiry (PSI): page 17 – 222	PAXVPS2S.pls	PAXVPS2B.pls
Project Verification: page 19 – 110	PAXPCECS.pls	PAXPCECB.pls
Project Workflow: page 19 – 113	PAWFPCES.pls	PAWFPCEB.pls
Receivables Installation Override: page 19 – 65	PAPARICS.pls	PAPARICB.pls
Transaction Control: page 19 – 22	PAXTTCXS.pls	PAXTTCXB.pls
Verify Organization Change: page 19 – 125	PAXORCES.pls	PAXORCEB.pls

Table 19 – 1 Client Extensions (Page 2 of 2)

You use PL/SQL to modify procedures within the extensions. Oracle Projects calls these procedures during specific points in the standard processing.

The procedures that you write are *extensions*, not *customizations*. Extensions are supported features within the product and are easily upgraded between product releases. Customizations are changes to the base product which are not supported and are not easily upgraded.



Warning: Do not insert or update records directly into any Oracle Applications table; using extensions to do so is not supported by Oracle Corporation. You must use the public, predefined procedures that Oracle Projects provides to insert or update records in Oracle Projects tables. You are responsible for the support and upgrade of the procedures that you write that are affected by changes between releases of Oracle Applications.

Implementing Client Extensions

To implement client extensions, you must analyze your business requirements, design the client extension logic, and then write the appropriate PL/SQL procedures. Each of these steps is described in this section.

Each step requires a specific expertise. The analysis and design portions require an implementation team member who knows company's business rules, how Oracle Projects is set up in your company, and how you want to use the client extensions. The PL/SQL coding portion requires a team member who is adept with PL/SQL and the Oracle Projects data structures. Typically, the implementation team includes two or more people working together to provide the necessary expertise.

Analyzing Your Business Requirements

First determine if you need to use client extensions at all.

1. Define and document your company's business requirements and rules.
2. Determine if these business rules are handled by the standard features of Oracle Projects.
3. For those business rules not handled by the standard functionality, determine which client extensions can address your specific business needs.

Example

Your company has defined a policy that supplies must be charged to overhead projects.

You review your implementation of Oracle Projects and find that you can use transaction controls to specify what can be charged to a specific project or task. The rule regarding supplies is applicable to all projects that are not overhead projects. You decide it is impractical to implement this rule by defining transaction controls for every non-overhead project.

You decide to use transaction control extensions to implement this policy.

Designing the Logic

Careful design is critical. If you create careful, thorough design and specifications in this stage, you can expect more ease in writing the PL/SQL procedure and a more successful client extension implementation. This design cycle includes the following steps:

1. Understand the client extensions you propose to use, including their purpose, processing flow, when Oracle Projects calls the extensions, and the input values. For a list and reference for each extension, see: Alphabetical List of Client Extensions: page 19 – 2.
2. Define and document the requirements and logic of your business rules under all possible conditions. Determine the inputs, calculations performed, and resulting outputs.
3. Determine the data elements required to enforce your rules and how you will select or derive each of the required elements. Define additional implementation data and document additional business procedures based on the requirements of your business rules.
4. Step through various business scenarios to ensure that your logic handles each condition as you expect. You can use these scenarios as test cases when you test your actual client extension definition and procedure.
5. Give the detailed specification to the team member who will write the PL/SQL procedure.

If you want to use different logic for different parts of your enterprise, write one procedure that branches appropriately.

Determining Data Elements

Each client extension contains predefined parameters. The program that calls and executes the client extension passes in values for the predefined parameters.

You can derive additional parameters from the predefined parameters. For example, if a client extension has a predefined parameter of `PROJECT_ID` (project identifier), you can derive the project type from `PROJECT_ID`.

You can also use descriptive flexfield segments to hold additional data as inputs to your rules. When you write the PL/SQL procedure, you select from the descriptive flexfield segment column that holds the appropriate input value.

You can derive data for any Oracle table as input into your rules, as long as you can derive the values from the predefined input values passed into the PL/SQL procedure.

Example: Designing a Client Extension

Let's use our earlier transaction control extension example to illustrate these design steps. (See: Analyzing Your Business Requirements: page 19 – 4.)

1. After studying transaction control extensions, you decide to use the transaction control extensions so that users can charge supplies only to overhead projects.

2. You define the logic for the transaction control extension as:

```
IF      charging supplies
THEN   IF      charging to overhead projects
        THEN   OK
        ELSE   error message
You can charge supplies only to overhead projects
ELSE   OK
```

3. You determine the data elements that identify which transactions are supplies and which projects are overhead projects.

You decide that the expenditure type of *Supplies* specifies the type of charge, and that the project type of *Overhead* specifies the type of project.

The predefined parameters for the extension include expenditure type (*Supplies*) and project ID. You can derive the project type (*Overhead*) from the project ID.

The logic is:

```
IF Expenditure Type = Supplies
THEN  IF Project Type = Overhead
        THEN  OK
        ELSE  error message
You can charge supplies only to overhead projects
ELSE  OK
```

4. You step through several scenarios using different types of charges and different types of projects. Your logic handles all of the scenarios.
5. You are ready to hand off this specification to your technical resource.

Writing PL/SQL Procedures

This section is a brief overview of PL/SQL procedures. For more information, see: *PL/SQL User's Guide and Reference Manual*.

Packages

Packages are database objects that group logically related PL/SQL types, objects, and subprograms. Packages usually consist of two files: a package specification file and a package body file. The specification file is the interface to your applications; it declares the types, variables, constants, exceptions, cursors, and subprograms available for use in the package. It contains the package name, procedures, and function declarations. The package body contains the actual PL/SQL code used to implement the business logic.

Procedures

Procedures are subprograms within a package. Procedures are invoked by the application and perform a specific action. Procedures define what parameters will be passed in as context for the program, how the inputs are processed, and what output is returned. A procedure consists of the following elements:

Inputs	Each procedure has predefined input parameters, which must be passed in the predefined order. The parameters identify the transaction being processed and the context in which the program is called. You can derive additional inputs from any Oracle table based on the predefined input parameters.
Logic	The procedure uses the inputs and performs any logical processing and calculations. The program can be a simple program, such that it returns a fixed number, or it can be a complex algorithm that performs multiple functions.
Outputs	Each procedure returns whatever value you define it to return. For example, your procedure for transaction control extensions could return a null value if the transaction passes all validation rules, or an error message if validation fails.

Syntax

A procedure consists of two parts: the *specification* and the *body*.

The procedure specification begins with the keyword `PROCEDURE` and ends with the procedure name or a parameter list.

The procedure body begins with the keyword `IS` and ends with the keyword `END`, followed by an optional procedure name. The procedure body has a declarative part, an executable part, and an optional error handling part.

You write procedures using the following syntax:

```
PROCEDURE name [ (parameter [, parameter,...]) ] IS
    [local declarations]
BEGIN
    executable statements
[EXCEPTION
    exception handlers]
END [name];
```

The parameter syntax above expands to the following syntax:

```
var_name [IN | OUT | IN OUT] datatype [{:= | DEFAULT} value]
```

For more information, refer to the *PL/SQL User's Guide and Reference Manual*.

Using Template Procedures

Oracle Projects provides you with template procedures for each client extension that you can use to write your own procedures. Each template procedure contains predefined parameters that are passed into the procedure by the program that calls the procedure; you cannot change these predefined input parameters.

The Client Extensions table: page 19 – 3 lists each client extension and its file names. The template procedure files are stored in the Oracle Projects `admin/sql` directory.

Review the appropriate files before you design and implement a client extension. They provide a lot of useful information, including the predefined input parameter list and example case studies.

Make copies of these template files in a directory used by your company to store code that you have written, and then modify the copies. These template files will be replaced when the software is upgraded between releases. Use your modified files to reinstall your procedures after an upgrade to a new release of Oracle Projects.

Writing Logic in Your PL/SQL Procedures

You write the logic in the PL/SQL procedures based on the functional specifications created during the design process. Before you write the client extension PL/SQL procedures, you should have a clear understanding of the client extension procedures; including the inputs and outputs, error handling, and any example procedures provided for each extension. Read the appropriate client extension essays and template procedures to obtain detailed information.

Do not commit data within your PL/SQL procedure. Oracle Projects processes that call your procedures handle the commit logic.

Compiling and Storing Your Procedures

After you write your procedures and ensure that the specification file correctly includes any procedures that you have defined, compile and store the procedures in the database in the Applications Oracle username. Install the package specification first, and then install the package body.

The template procedure files include syntax for compiling and storing the PL/SQL procedures. Assuming you have written your procedures using copies of the template procedure files, change to the directory in which your files are stored (use the command that is appropriate to your operating system):

```
$ sqlplus <apps username>/<apps password>  
SQL> @<spec_filename>.pls  
SQL> @<body_filename>.pls
```

For example, if your Oracle Applications Oracle username/password is apps/apps, you could use the following commands to install your transaction control extensions:

```
$ sqlplus apps/apps  
SQL> @PAXTTXCS.pls  
SQL> @PAXTTXCB.pls
```

If you encounter errors when you are creating your packages and its procedures, correct the errors and recreate your packages. You must successfully compile and store your package and its procedures in the database before you can use the client extensions in Oracle Projects.

Testing Your Procedures

After you have created your client extension procedures, test your client extension definitions within the processing flow of Oracle Projects to verify that you get the expected results.

Project Security Extension

Oracle Projects provides a client extension, `PA_SECURITY_EXTN`, that enables you to override the default security and implement your own business rules for project and labor cost security. This extension applies only to Oracle Projects windows and not to reports. Some examples of rules that you may define are:

- Only users who belong to the same organization as the project organization can access the project (organization-based security). Sample code for this example is included in the client extension package.
- All project administrators can view and update projects to which they are assigned, but project managers can only view those projects to which they are assigned
- Some responsibilities can view or update only capital projects (for an environment where users who handle capital projects do not handle contract and indirect projects)

Considerations for Project Security Extension Logic

You should determine the logic and the additional data elements your client extension requires before you write it. We recommend that you consider the following design issues for the project security extension:

- What are the conditions or circumstances in which project or labor security is based? What types of users? How will you identify the users? What types of projects? How will you identify the projects?
- Do you want the users to view the project but not update it, or do you want to block the project from their online queries?
- Does the type of security for a given user or set of projects change depending on the module?
- How does project security interact with the function security defined for the responsibility?
- Consider the performance implications of the logic that you write. The extension is called for every project during online queries.

Writing the Project Security Extension

Oracle Projects provides a template package that contains the procedure that you can modify to implement the project security extension. The name of the package is **pa_security_extn**, and the name of the procedure is **check_project_access**.

Print out and review the following files before you begin writing your project security client extension. These files are located in the Oracle Projects admin/sql directory.

- PAPSECXB.pls.

Project Security Extension Package Body Template. This file contains the procedure that you modify to implement the project security extension. You can define as many procedures as you want within this package or within the predefined procedure.
- PAPSECXS.pls

Project Security Extension Package Specification Template. If you create procedures outside the predefined procedure within the PA_Security_Extn package, you must also modify this file to include those new procedures.

**Warning:** Do not change the name of the **check_project_access** procedure. In addition, do not change the parameter names, parameter types, or parameter order in your procedure.

**Suggestion:** After you write the procedure, do not forget to compile it and store it in the database. See: Storing Your Procedures: page 19 – 9.

We recommend that you keep the following documentation on hand as reference material while defining procedures: the *PL/SQL User's Guide and Reference Manual* and the *Oracle Projects Technical Reference Manual*.

Package.Procedure

The following table lists the parameters that Oracle Projects provides for the project security extension, **pa_security_extn.check_project_access**.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	Identifier of the project or project template
X_person_id	IN	NUMBER	Identifier of the person

Table 19 – 2 (Page 1 of 2) Project Security Extension Parameters

Parameter	Usage	Type	Description
X_cross_project_user	IN	VARCHAR2	Indicates if the user is a cross-project user Y / N
X_calling_module	IN	VARCHAR2	Module in which the project security extension is called; Oracle Projects sets this value for each module in which it calls the security extension. The values are listed below.
X_event	IN	VARCHAR2	Type of query level to check upon which you can define specific rules: ALLOW_QUERY ALLOW_UPDATE VIEW_LABOR_COSTS
X_value	OUT	VARCHAR2	Values to specify if result of the event: Y / N

Table 19 – 2 (Page 2 of 2) Project Security Extension Parameters

Additional Information about Parameters

The parameter X_calling_module allows you to write security rules based on the module in which the extension is called. The values are as follows:

Value	Description
PAXBUEBU	Budgets window
PAXCARVW	Capital Projects window
PAXINEAG	Agreements window
PAXINRVW	Invoice Review window
PAXINVPF	Project Funding Inquiry window
PAXPREPR	Projects window
PAXTRAPE.PROJECT	Project Expenditure Inquiry window
PAXURVPS	Project Status Inquiry window

Table 19 – 3 (Page 1 of 1) Additional Information About Parameters

Refer to the PA_Security_Extn procedure for the most up-to-date information about values for X_calling_module.

Budget Calculation Extensions

Budget calculation extensions allow you to control how Oracle Projects processes budgets. You can make the following types of changes:

- Facilitate budget entry by defining your own rules for calculating budget amounts, based on the quantities and raw cost amounts that you enter.
- Use function security to control whether users can override the calculated amount, based user responsibility. The functions pertaining to this feature have names that begin with "Budget: Line Source". See: Function Security: page C – 2.

Types of Calculations

Using budget calculation extensions, you can calculate the following budget amounts:

Raw Cost

Oracle Projects calls the budget calculation extension for raw cost after you enter a *Quantity* in a Cost Budget's budget line. If you define rules in the budget calculation extension which return a value, Oracle Projects displays the amount in the *Raw Cost* amount field.

Some examples of rules that you can define are:

- Calculate *Raw Cost* for an employee based on the number of *Hours* entered
- Calculate *Raw Cost* for vehicle usage based on the number of *Days* entered

Burdened Cost

Oracle Projects calls the budget calculation extension for burdened cost either after you enter a *Quantity* for a budget line of a Cost Budget, or after you enter the *Raw Cost*, deriving the burdened cost from the raw cost.

If you define rules in the budget calculation extension which return a value, Oracle Projects displays the amount in the *Burdened Cost* amount field.

Some examples of rules that you can define are:

- Calculate *Raw Cost* and *Burdened Cost* for an employee based on the number of *Hours* entered

- Calculate *Burdened Cost* for computer usage charges based on the *Raw Cost* entered

Revenue

Oracle Projects calls the budget calculation extension for revenue after you enter a *Quantity* for a Revenue Budget's budget line. If you define rules in the budget calculation extension which return a value, Oracle Projects displays the amount in the *Revenue* field.

Some examples of rules that you can define are:

- Calculate *Revenue* for an employee using a standard bill rate assigned to the task
- Calculate *Revenue* for the *Job* entered using the number of *Hours* entered

All Budget Amounts

Oracle Projects also calls the budget extension to calculate budget amounts when you enter the Resource, Dates, and Quantity, and when you change the resource or dates for existing amounts

Designing Budget Calculation Extensions

You should determine the logic and the additional data elements your client extensions require before you write them. We recommend that you consider the following design issues for budget calculation extensions:

- What conditions should be true for a budget before it can be baselined?
- What are the conditions or circumstances under which you will derive the raw, burdened and revenue budget amounts?
- How will you determine the rate to calculate the amount?
- How will you store the rates: in Oracle Projects tables or in custom tables?
- When can the derived amounts be overridden by the user?
- In what order should the budget calculations be executed if you have multiple rules?

Writing Budget Calculation Extensions

Oracle Projects provides a template package that contains the procedures that you modify to control the rules used for calculating a budget.

The name of the package is **PA_Client_Extn_Budget**. The names of the procedures are:

- calc_raw_cost
- calc_burdened_cost
- calc_revenue

Print out and review the following files before you begin writing budget calculation extensions. These files are located in the Oracle Projects admin/sql directory.

PAXBCECB.pls Budget Calculation Extension Package Body Template. This file contains the procedure that you modify to implement budget calculation extensions. You can define as many procedures as you want within this package or within the predefined procedure.

PAXBCECS.pls Budget Calculation Extension Package Specification Template. If you create procedures outside the predefined procedure within the **PA_Client_Extn_Budget** package, you must also modify this file to include those new procedures.



Warning: Do not change the name of the budget calculation extension procedure. In addition, do not change the parameter names, parameter types, or parameter order in your procedure.



Suggestion: After you write the procedure, do not forget to compile it and store it in the database. See: *Writing PL/SQL Procedures*: page 19 – 7.

We recommend that you keep the following documentation on hand as reference material while defining procedures: the *PL/SQL User's Guide and Reference Manual* and the *Oracle Projects Technical Reference Manual*.

Package Procedures

calc_raw_cost

Table 19 – 4 lists the parameters that Oracle Projects provides for the budget calculation extension for raw cost.

Parameter	Usage	Type	Description
X_budget_version_id	IN	NUMBER	The identifier of the budget version.
X_project_id	IN	NUMBER	The identifier of the project.
X_task_id	IN	NUMBER	The identifier of the task. Set to zero if budgeting at the project level.
X_resource_list_member_id	IN	NUMBER	The identifier of the resource list member.
X_resource_list_id	IN	NUMBER	The identifier of the resource list.
X_resource_id	IN	NUMBER	The identifier of the resource.
X_start_date	IN	DATE	The start date of the budget line.
X_end_date	IN	DATE	The end date of the budget line.
X_period_name	IN	VARCHAR2	The effective period of the budget line (if any).
X_quantity	IN	NUMBER	The quantity of the budget line.
X_raw_cost	IN OUT	NUMBER	The raw cost of the budget line. Oracle Projects passes in the raw cost from the Budgets form. An amount is then returned by the extension.
X_product_code	IN	VARCHAR2	The product code of the product where the budget line originated.

Table 19 – 4 (Page 1 of 2) Raw Cost Budget Calculation Extension Parameters

Parameter	Usage	Type	Description
X_error_code	OUT	NUMBER	Error handling code.
X_error_message	OUT	VARCHAR2	User-defined error message.

Table 19 – 4 (Page 2 of 2) Raw Cost Budget Calculation Extension Parameters

calc_burdened_cost

Table 19 – 5 lists the parameters that Oracle Projects provides for the budget calculation extension for burdened cost.

Parameter	Usage	Type	Description
X_budget_version_id	IN	NUMBER	The identifier of the budget version.
X_project_id	IN	NUMBER	The identifier of the project.
X_task_id	IN	NUMBER	The identifier of the task. Set to zero if budgeting at the project level
X_resource_list_member_id	IN	NUMBER	The identifier of the resource list member.
X_resource_list_id	IN	NUMBER	The identifier of the resource list.
X_resource_id	IN	NUMBER	The identifier of the resource.
X_start_date	IN	DATE	The start date of the budget line.
X_end_date	IN	DATE	The end date of the budget line.
X_period_name	IN	VARCHAR2	The effective period of the budget line (if any).
X_quantity	IN	NUMBER	The quantity of the budget line.
X_raw_cost	IN	NUMBER	The raw cost of the budget line.

Table 19 – 5 (Page 1 of 2) Burdened Cost Budget Calculation Parameters

Parameter	Usage	Type	Description
X_burdened_cost	IN OUT	NUMBER	The burdened cost of the budget line. Oracle Projects passes in the raw cost from the Budgets form. An amount is then returned by the extension.
X_product_code	IN	VARCHAR2	The product code of the product where the budget line originated.
X_error_code	OUT	NUMBER	Error handling code.
X_error_message	OUT	VARCHAR2	User-defined error message.

Table 19 – 5 (Page 2 of 2) Burdened Cost Budget Calculation Parameters



Suggestion: Use the Cost Plus API to calculate the burdened cost amount using the burdened multipliers you have defined for the project or task. See: Cost Plus API; page 19 – 147.

calc_revenue

Table 19 – 6 lists the parameter that Oracle Projects provides for the budget calculation extension for revenue.

Parameter	Usage	Type	Description
X_budget_version_id	IN	NUMBER	The identifier of the budget version.
X_project_id	IN	NUMBER	The identifier of the project.
X_task_id	IN	NUMBER	The identifier of the task. Set to zero if budgeting at the project level.
X_resource_list_member_id	IN	NUMBER	The identifier of the resource list member.
X_resource_list_id	IN	NUMBER	The identifier of the resource list.
X_resource_id	IN	NUMBER	The identifier of the resource.

Table 19 – 6 (Page 1 of 2) Revenue Budget Calculation Parameters

Parameter	Usage	Type	Description
X_start_date	IN	DATE	The start date of the budget line.
X_end_date	IN	DATE	The end date of the budget line.
X_period_name	IN	VARCHAR2	The effective period of the budget line (if any).
X_quantity	IN	NUMBER	The quantity of the budget line.
X_revenue	IN OUT	NUMBER	The revenue of the budget line. Oracle Projects passes in the raw cost from the Budgets form. An amount is then returned by the extension.
X_product_code	IN	VARCHAR2	The product code of the product where the budget line originated.
X_error_code	OUT	NUMBER	Error handling code.
X_error_message	OUT	VARCHAR2	User-defined error message.

Table 19 – 6 (Page 2 of 2) Revenue Budget Calculation Parameters

Additional Information About Parameters

Error Handling

Use the `x_error_code`, `x_error_message`, `p_error_code`, and `p_error_message` parameters to help resolve error conditions should your procedure fail.

The `x_err_code` or `p_error_code` parameter indicates the processing status of your procedure as follows:



Suggestion: Ensure that you are returning the status of the budget calculation procedure to the procedure that you are calling the budget calculation extension from to help resolve error conditions.

`x_error_code = 0` The procedure executed successfully.

- x_error_code < 0** An Oracle8 error occurred and the process did not complete.
- x_error_code > 0** An application error occurred and the process did not complete

If x_error_code or p_error_code is set to a nonzero value in the client extension, then the following message is displayed in the form:

'Calculate raw cost budget' client extension error
<x_error_code>: <x_error_message>.

Transaction Control Extensions

Transaction control extensions allow you to define your own rules to implement company-specific expenditure entry policies. Some examples of rules that you may define are:

- You cannot charge labor hours for a future date
- You cannot charge new transactions to projects for which the work is complete; you can only transfer items to these projects
- You can only charge to tasks that are managed by the organization you are assigned to
- All entertainment expenses are non-billable

See Also

Transaction Control Extensions Case Studies:

Case Study: New Charges Not Allowed: page 16 – 8

Case Study: Organization-Based Transaction Controls: page 16 – 10

Case Study: Default Billable Status by Expenditure type: page 16 – 12

Validation

You can use transaction control extensions to provide additional validation based on any type of data you enter in Oracle Projects. For example, you can check the project status for a particular project during expenditure entry.

You can validate any transaction entered into Oracle Projects, including transactions from other Oracle Applications and from external systems. For example, you can validate project-related supplier invoices entered into Oracle Payables. You can also validate items that you transfer from one project to another.

Transaction control extensions validate expenditures items one at a time; all validation is done for each expenditure item. Oracle Projects checks each expenditure item during data entry; the transaction is validated before you commit it to the database.

Processing

Oracle Projects processes transaction control extensions after the standard validation performed for expenditure entry, and after validating any transaction controls entered at the project or task level.

1. **Standard validation**

Transaction is within start and completion dates of project / task

Project status is not *Closed*

Task is chargeable

Transaction controls at project / task level

2. **Transaction control extension validation**

Designing Transaction Control Extensions

You should determine the logic and the additional data elements your client extensions require before you write them. We recommend that you consider some additional design issues for transaction control extensions:

- What are the business rules?
- What validation is required? Under what conditions does it apply?
- Are there any exceptions to the validation? How are exceptions handled?
- In what order should the transaction controls be executed if you have multiple rules?
- What error message should users see when entering a transaction not allowed by transaction control extensions?
- Are there any rules to set the default billable or capitalizable status of transactions?

See Also

Designing Client Extensions: page 19 – 5

Writing Transaction Control Extensions

Oracle Projects provides a template package that contains the procedure that you modify to implement transaction control extensions. The name of the package is **patcx**, the name of the procedure is **tc_extension**.

Print out and review the following files before you begin writing transaction control extensions. These files are located in the Oracle Projects admin/sql directory.

PAXTTCXB.pls.	Transaction Control Extension Package Body Template. This file contains the procedure that you modify to implement transaction control extensions. You can define as many procedures as you like within this package or within the predefined procedure.
PAXTTCXS.pls	Transaction Control Extension Package Specification Template. If you create procedures outside the predefined procedure within the patcx package, you must also modify this file to include those new procedures.

We recommend that you use the *PL/SQL User's Guide and Reference Manual* and the *Oracle Projects Technical Reference Manual* as reference material while defining procedures:

Writing Error Messages

You write error messages that will be displayed in forms when a transaction control violation is encountered. Use these messages to tell users why a particular transaction cannot be entered, based on validation in the procedure. These messages also appear on the Transaction Import exception report and indicate the reasons why transactions may be rejected by Transaction Import.

Be sure to define your messages under the Oracle Projects application. If you define your messages using the prefix **PATXC**, Oracle Projects will protect them during an upgrade.

The messages are stored in the table FND_NEW_MESSAGES.

See: Defining Messages *Oracle Application Object Library Reference Manual*.

Package.Procedure

patcx.tc_extension

Table 19 – 7 lists the parameters that Oracle Projects provides for the transaction control extension. All values are passed from the expenditure item being validated.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	The identifier of the project.
X_task_id	IN	NUMBER	The identifier of the task.
X_expenditure_item_date	IN	DATE	The date of the expenditure item.
X_expenditure_type	IN	VARCHAR2	The type of expenditure.
X_non_labor_resource	IN	VARCHAR2	The non-labor resource; for usage items only.
X_incurred_by_person_id	IN	NUMBER	The identifier of the person incurring the transaction.
X_quantity	IN	NUMBER	The quantity of the transaction.
X_denom_currency_code	IN	VARCHAR2	The transaction currency code.
X_acct_currency_code	IN	VARCHAR2	The functional currency code.
X_denom_raw_cost	IN	NUMBER	The transaction currency raw cost.
X_acct_raw_cost	IN	NUMBER	The functional currency raw cost.
X_acct_rate_type	IN	VARCHAR2	The functional currency exchange rate type.
X_acct_rate_date	IN	DATE	The functional currency exchange rate date.
X_acct_exchange_rate	IN	NUMBER	The functional currency exchange rate.

Table 19 – 7 (Page 1 of 3) Transaction Control Extension Parameters

Parameter	Usage	Type	Description
X_transferred_from_id	IN	NUMBER	The identifier of the original expenditure item for which a new item is interfacing to a new project.
X_incurred_by_org_id	IN	NUMBER	The organization incurring the transaction.
X_nl_resource_org_id	IN	NUMBER	The identifier of the non-labor resource organization; for usages only.
X_transaction_source	IN	VARCHAR2	The transaction source of items imported using Transaction Import.
X_calling_module	IN	VARCHAR2	The module calling the extension.
X_entered_by_user_id	IN	NUMBER	The identifier of the user that entered the transaction.
X_attribute_category	IN	VARCHAR2	Expenditure item descriptive flexfield context.
X_attribute1 through X_attribute15	IN	VARCHAR2	Expenditure item descriptive flexfield segments.
X_msg_application	IN OUT	VARCHAR2	The application short name for the custom application providing customized messages
X_billable_flag	IN OUT	VARCHAR2	Determines whether or not a transaction is billable or capitalizable.
X_msg_type	OUT	VARCHAR2	Message type: W = warning message, E = error message.
X_msg_token1 through X_msg_token3	OUT	VARCHAR2	Message tokens used in warning messages.

Table 19 – 7 (Page 2 of 3) Transaction Control Extension Parameters

Parameter	Usage	Type	Description
X_msg_count	OUT	NUMBER	This parameter will support multiple messages in the future. In the current release, we support only one message, so the value is set to 1.
X_outcome	OUT	VARCHAR2	The outcome of the procedure.

Table 19 – 7 (Page 3 of 3) Transaction Control Extension Parameters

Additional Information About Parameters

Attributes

For the X_attribute parameters, you can use any attribute from the expenditure item descriptive flexfield. These parameters are not available for modules outside Oracle Projects.

Quantity

You can use the quantity parameter for validation using Oracle Projects and Oracle Payables features. However, keep in mind that Oracle Purchasing does not pass a value for this parameter.

Incurred by Person

Oracle Projects passes the person who is incurring the transaction. This value is always specified for labor and expense report items. It is optional for usage items, because you can enter usage logs which are incurred by an organization, and not an employee.

Oracle Payables passes a parameter value for supplier invoice transactions if the supplier of the invoice is an employee; otherwise this value is blank for supplier invoice transactions.

Oracle Purchasing does not pass a value for this parameter for requisitions and purchase orders transactions.

Billable/Capitalizable Flag

Oracle Projects passes in the billable value (contract projects) or capitalizable value (capital projects) that it has determined from the project and task transaction controls and the task billable status for this

parameter. You can override this value based on logic that you write in your procedure. You can pass back a value of Y or N to specify the default billable or capitalizable status of a transaction. If you do not pass back a value, or if you pass back an invalid value, Oracle Projects uses the original value that it determined before calling the transaction control extension procedure.

Outcome Parameter

Use the X_outcome parameter to pass back the outcome of the procedure. If the transaction successfully passes all applicable transaction control extension rules that you defined, leave the X_outcome parameter value as a null value. Oracle Projects then knows that this transaction passed all transaction control validation.

If the transaction does not pass a rule that you define, set the X_outcome value to the appropriate error message name that will be displayed to the user.

Calling Module

The calling module parameter indicates where the transaction control extension is being called from. You can base the logic of your extension on the calling module. For example, if Transaction Import is the calling module (PAXTRTRX), then allow only certain types of transactions to be charged to specific projects.

Below is a list of the possible values for the X_calling_module parameter. Note that these values are case-sensitive and are passed exactly as they appear.

When transaction controls is called by Oracle Purchasing and Oracle Payables, the validation is performed when you enter project-related information for requisitions, purchase orders, and supplier invoices. The validation is also performed when you enter or update the project-related information for distribution lines.

APXINENT	Invoices Workbench in Oracle Payables. This value is passed when Transaction Controls is called to validate project-related information entered on a supplier invoice.
CreateRelated Item	CreateRelatedItem procedure called in the labor transactions extension procedure. This value is passed when CreateRelatedItem calls Transaction Controls to validate related transactions in the labor transactions extension procedure.

PAVVIT	Interface Supplier Invoices from Payables. This value is passed when Transaction Controls is called to validate expenditure items being created from project-related supplier invoice distribution lines interfaced from Oracle Payables into Oracle Projects.
PAXTREPE	Pre-Approved Expenditures. This value is passed when Transaction Controls is called to validate unapproved expenditure items being entered or updated in the Enter Pre-Approved Expense Reports form.
PAXTRTRX	Transaction Import. This value is passed when Transaction Controls is called by the Transaction Import program to validate transactions before they are loaded into Oracle Projects.
PAXEXCOP/ PAXTEXCB	Copy Pre-Approved Timecards / Copy Expenditures. This value is passed when Transaction Controls is called to validate new expenditure items being created using the Copy Pre-Approved Timecards feature.
PAXPRRPE	Adjust Project Expenditures. This value is passed when Transaction Controls is called to validate a new expenditure item that is being created as a result of an expenditure item transfer performed in the Adjust Project Expenditures form.
POXPOEPO	Purchase Orders in Oracle Purchasing. This value is passed when Transaction Controls is called to validate project-related information entered on a purchase order.
POXRQERQ	Requisitions in Oracle Purchasing. This value is passed when Transaction Controls is called to validate project-related information entered on a requisition.
POXPOERL	Releases in Oracle Purchasing. This value is passed when Transaction Controls is called to validate project-related information when you enter releases against purchase orders.
POXPOPRE	Preferences in Oracle Purchasing.

Frequently Asked Questions

Can I Call Other Procedures within the Extension?

You can call other procedures. As long as you can determine the inputs and perform the validation for a particular rule, your extensions can be as flexible as you want them to be.

Can I Allow Exceptions to a Particular Rule?

Yes; for example, you can allow exceptions to a rule that applies to a project type by limiting the rule to particular projects for the project type in the procedure logic.

Can I Perform Validation on Groups of Expenditure Items?

Currently, you cannot perform validation on groups of expenditure items.

How Many Error Messages Can My Procedure Return?

Your procedure can return one error message, which is the first error message that Oracle Projects encounters in your procedure.

See Also

Case Study: New Charges Not Allowed: page 16 – 8

Case Study: Organization–Based Transaction Controls: page 16 – 10

Case Study: Default Billable Status by Expenditure type: page 16 – 12

Labor Costing Extensions

Labor costing extensions allow you to derive raw cost amounts for individual labor transactions. Some examples of labor costing extensions you may define are:

- Standard cost rate by job
- Capped labor cost rates
- Multiple cost rates per employee

You can use labor costing extensions to implement unique costing methods other than the standard method, which calculates raw cost using the number of hours multiplied by the employee's hourly cost rate. For example, you may want to calculate the raw cost using a capped labor rate for specific employees.

Processing

Oracle Projects processes labor costing extensions during labor cost distribution before calculating standard raw cost amounts. If Oracle Projects encounters a labor costing extension that derives the raw cost amount of a labor transaction, it skips the standard raw cost calculation section for that transaction.

See Also

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Labor Costing Extensions

Consider the following design issues for labor costing extensions:

- What are the conditions and circumstances in which you cannot use the standard raw cost calculation method supported by Oracle Projects?
- How is the raw cost amount calculated in these cases?
- How do you identify labor transactions that meet these conditions?

- How do you store rates and other additional information that your calculations may require? How are the rates and other information maintained?
- What are the exception conditions for your labor costing extension? What is the exception handling if you cannot find a rate that should exist?

See Also

Designing Client Extensions: page 19 – 5

Writing Labor Costing Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your labor costing extension procedures. The name of the package is **PA_Client_Extn_Costing**, the name of the procedure is **Calc_Raw_Cost**.

Print out and review the following files before you begin writing labor costing extensions. The files are located in the Oracle Projects admin/sql directory.

PAXCCECB.pls.	Labor Costing Extension Package Body Template. This file contains the procedure that you modify to implement labor costing extensions. You can define as many procedures as you like within this package or within the predefined procedure.
PAXCCECS.pls	Labor Costing Extension Package Specification Template. If you create procedures within the package outside the predefined procedure, you must also modify this file.

Package.Procedure

PA_Client_Extn_Costing.Calc_Raw_Cost

Table 19 – 8 lists the parameters that Oracle Projects provides for the labor costing procedure.

Parameter	Usage	Type	Description
x_expenditure_item_id	IN	NUMBER	The identifier of the expenditure item.
x_sys_linkage_function	IN	VARCHAR2	The expenditure type class of the expenditure item.
x_raw_cost	IN OUT	NUMBER	The raw cost amount.
x_status	IN OUT	NUMBER	The status of the procedure.

Table 19 – 8 (Page 1 of 1) Labor Costing Extension Parameters

Using Raw Cost

The raw cost amount that your procedure calculates is assigned to the `x_raw_cost` parameter. Leave this value blank if you want to use the standard costing method which uses the employee's hourly cost rate.

If you pass a value to this parameter, Oracle Projects calculates the raw cost rate of the transaction using the `x_raw_cost` parameter value divided by the number of hours.

Using Status

Use the `x_status` parameter to handle error conditions for your procedure. This parameter indicates the processing status of your extension as follows:

- x_status = 0** The extension executed successfully.
- x_status < 0** An Oracle8 error occurred and the process did not complete. Oracle Projects writes an error message to the process log file.
- x_status > 0** An application error occurred. Oracle Projects writes a rejection reason to `PA_EXPENDITURE_ITEMS.COST_DIST_REJECTION_CODE` and does not cost the transaction. You can review the rejection reason in the labor cost distribution exception report.

Labor Transaction Extensions

Labor transaction extensions allow you to create additional transactions for individual labor items charged to projects. For example, you may wish to create additional transactions for hazardous work performed for every labor transaction charged to certain projects. Here are some other examples of labor transactions extensions you can implement:

- Create overtime premium transactions for overtime hours based on company overtime policies
- Create fringe benefit transactions which are charged to the same project the source labor was charged to

You can create additional transactions for straight time labor transactions and overtime labor transactions. You create additional labor transactions based on the source labor transactions that you enter on timecards.

Related Transactions

Additional transactions that are created for labor transactions are referred to as *related transactions*. All related transactions are associated with a *source transaction* and are attached to the expenditure item ID of the source transaction. You can identify and process the related transactions by referring to the expenditure item ID of the source transaction.

You create related transactions to process a raw cost amount separately than the source transaction raw cost amount. Related transactions can be burdened, billed, and accounted for independently of the source transaction.

Processing

Oracle Projects processes labor transaction extensions during labor cost distribution. When you distribute labor costs, the labor transaction extension is processed after the raw cost calculation of the source transactions. This allows you to derive the cost of the related transaction from the cost of the source transaction.

You also use the labor transaction extension to calculate new cost amounts for related transactions if the source transaction is recosted.

If you are using the Labor Transaction Extension to create overtime premium transactions, you may not need to use the Overtime

Calculation program that Oracle Projects provides. If you determine that you need to use both the Labor Transaction Extension and the Overtime Calculation program, you need to ensure that you have defined conditions so that each transaction is processed by only one of these processes, based on your company policies.

See Also

Distributing Labor Costs: page 5 – 8

Tracking Overtime and Premium Labor Costs: page 18 – 2

Adjustments to Related Transactions: page 4 – 34

Designing Labor Transaction Extensions

Consider the following design issues for labor transaction extensions:

- What are the conditions in which your company needs to create related items? Why are you creating related items instead of using another method like burdening to account for additional costs?
- How do you identify labor transactions that meet these conditions?
- What related transactions should be created in these cases?
- What project and task are the related transactions charged to?
- What expenditure types are used for the related transactions?
- How is the raw cost of the related transaction calculated? Is it based on the raw cost of the source transaction or based on some other calculation?
- Is the related transaction burdened? If so, you need to set up your cost plus implementation so that the transaction is burdened.
- How is the related transaction's cost accounted for? Is the raw cost accounting for related transactions different from the accounting for source transactions? Is the total burdened cost accounting different (if you use total burdened cost accounting)?

You need to define your AutoAccounting rules for labor costs appropriately.

- How is the billable status of each related transaction determined? Do you need to create a transaction control extension rule to properly specify the related transaction's billable status?
- Are the related transactions billed? If so, under what conditions? How is the bill amount calculated under the different billing methods? Do you need to use a labor billing extension to bill these transactions?
- Is the related transaction's revenue accounted for differently than the source transactions? If so, how? You need to define your AutoAccounting rules for labor revenue appropriately.
- What are the exception conditions for your labor transaction extension? For example, what is the exception handling if you cannot find a rate for the related transaction if the related transaction's raw cost is not directly based on the source transaction's raw cost?

See Also

Designing Client Extensions: page 19 – 5

Writing Labor Transaction Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your labor transaction extension procedures. The name of the package is **PA_Client_Extn_Txn**, the name of the procedure is **Add_Transactions**.

Print out and review the following files before you begin writing labor transaction extensions. The files are located in the Oracle Projects admin/sql directory.

PAXCCETB.pls.	Labor Transaction Extension Package Body Template. This file contains the procedure that you modify to implement labor transaction extensions. You can define as many procedures as you like

within this package or within the predefined procedure.

PAXCCETS.pls Labor Transaction Extension Package Specification Template. If you create procedures within the package outside the predefined procedure, you must also modify this file.

Oracle Projects also provides two public procedures that you use within the Add_Transactions procedure for the following purposes:

- Creating Related Transactions
- Updating Related Transactions

Adding Transactions

Use the Add_Transactions procedure to add related transactions for source transactions. Within this procedure, you write logic to create related new transactions and update the raw cost of related transactions when they are marked for cost recalculation. You calculate the raw cost of related transactions in this procedure only; Oracle Projects does not calculate the raw cost of related transactions in any other way. Use the two procedures discussed later in this section for processing related transactions within this procedure.

Package.Procedure

PA_Client_Extn_Txn.Add_Transactions

Table 19 – 9 lists the parameters that Oracle Projects provides for the add related transactions procedure.

Parameter	Usage	Type	Description
x_expenditure_item_id	IN	NUMBER	The identifier of the source transaction.
x_sys_linkage_function	IN	VARCHAR2	The expenditure type class of the source transaction.
x_status	IN OUT	NUMBER	The status of the procedure.

Table 19 – 9 (Page 1 of 1) Add Related Transactions Parameters

Creating Related Transactions

Use this procedure to create related transactions within the logic of the Add Transactions procedure. This procedure exists in the **pa_transactions** package; you cannot change this procedure.

The related transaction is linked to the same employee's timecard as the source transaction. The transaction is created with a quantity of 0, in order to maintain the proper number of hours for the employee's timecard, even when related transactions exist.

Package.Procedure

pa_transactions.CreateRelatedItem

Table 19 – 10 lists the parameters that Oracle Projects provides for the create related transactions procedure.

Parameter	Usage	Type	Description
x_source_exp_item_id	IN	NUMBER	The identifier of the source transaction.
x_project_id	IN	NUMBER	The identifier of the project to charge the related transaction to.
x_task_id	IN	NUMBER	The identifier of the task.
x_expenditure_type	IN	VARCHAR2	The expenditure type of the related transaction.
x_raw_cost	IN	NUMBER	The raw cost amount of the related transaction.
x_raw_cost_rate	IN	NUMBER	The raw cost rate of the related transaction.
x_override_to_org_id	IN	NUMBER	The identifier of the organization that overrides the expenditure organization used by the source transaction.
x_userid	IN	NUMBER	The identifier of the user that entered the source transaction.

Table 19 – 10 (Page 1 of 2) Create Related Item Parameters

Parameter	Usage	Type	Description
x_attribute_category	IN	VARCHAR2	Descriptive flexfield context.
x_attribute1 – 10	IN	VARCHAR2	Descriptive flexfield segments.
x_comment	IN	VARCHAR2	Expenditure item comment.
x_status	OUT	NUMBER	Status of the procedure.
x_outcome	OUT	VARCHAR2	Outcome of the procedure.

Table 19 – 10 (Page 2 of 2) Create Related Item Parameters

Updating Related Transactions

Use this procedure to update the raw cost amount of existing related transactions within the logic of your labor transaction extension when related transactions are marked for cost recalculation. This procedure exists in the **pa_transactions** package; you cannot change this procedure.

Package.Procedure

pa_transactions.UpdateRelatedItem

Table 19 – 11 lists the parameters that Oracle Projects provides for the update related transactions procedure.

Parameter	Usage	Type	Description
x_expenditure_item_id	IN	NUMBER	The identifier of the related expenditure item.
x_raw_cost	IN	NUMBER	The new raw cost of the related transaction.

Table 19 – 11 (Page 1 of 2) Update Related Item Parameters

Parameter	Usage	Type	Description
x_raw_cost_rate	IN	NUMBER	The new raw cost rate of the related transaction.
x_status	OUT	NUMBER	Status of the procedure.

Table 19 – 11 (Page 2 of 2) Update Related Item Parameters

Additional Information About Parameters

Using Project and Task in the CreateRelatedItem Procedure

You can optionally pass the project and task parameter values to the CreateRelatedItem procedure.

If you do not pass project and task information, Oracle Projects charges the related transaction to the same project and task that the source transaction is charged to.

If you do pass project and task information, Oracle Projects uses these values to ensure that the transaction can be charged based on the transaction control validation for that project and task. If the related transaction passes all transaction control rules, then the related transaction is created with that project and task. You must pass both a project and task value to override the source transaction's project and task.

Using Userid in the CreateRelatedItem procedure

You must provide an input value for the X_userid parameter for the CreateRelatedItem procedure. Oracle Projects passes this value to the transaction control procedure, which is called before the related transaction is created. You may have defined logic in your transaction control extensions that uses the userid value. You typically pass the user of the person who created the source transaction, but you can pass any userid that you want to the CreateRelatedItem procedure.

Using an Override Organization in CreateRelatedItem Procedure

Use the x_override_to_org_id to override the source transaction's expenditure organization to another organization, such as the project organization for the related transaction.

If a value is provided for this parameter when calling the create related transactions procedure, and it is a valid organization, then that value is stored as the expenditure item's override organization *regardless* of the existence of any other cost distribution overrides defined for the project.

This organization is then used when calculating burdened amounts for the related transaction. It is also used as the input value for any AutoAccounting rules that use the expenditure organization parameter.

However, the source transaction expenditure organization is what the create related transaction procedure passes to the transaction controls procedure for validation. This is done to retain consistency with expenditure entry forms which always send the incurred by (or expenditure organization) organization value. The expenditure organization parameter is used in Transaction Control Extensions by clients who want to control expenditure entry by what organization is *charging* to the project.

Therefore, the override organization value is used only for burdening and AutoAccounting.

Using Outcome in the CreateRelatedItem Procedure

Oracle Projects uses the X_outcome parameter to pass back the rejection reason encountered in the application logic of the CreateRelatedItem procedure. For example, if the related transaction is rejected by the transaction controls validation called in the CreateRelatedItem procedure, then the reason is assigned to the X_outcome parameter.

Using Status in both Procedures

Use the x_status parameter to handle error conditions for your procedure. This parameter indicates the processing status of your extension as follows:

x_status = 0	The extension executed successfully.
x_status < 0	An Oracle8 error occurred and the process did not complete. Oracle Projects writes an error message to the process log file.
x_status > 0	An application error occurred. Oracle Projects writes a rejection reason to PA_EXPENDITURE_ITEMS.COST_DIST_REJECTION_CODE and does not cost the source and related transactions. You can review

the rejection reason in the labor cost distribution exception report.

The two related transaction procedures pass your labor transaction procedure the outcome of their processing in this same way as you pass the outcome of your labor transaction extension procedure to the labor distribution process.

Frequently Asked Questions

What Does the CreateRelatedItem Procedure Do?

This procedure does the following:

- Ensures all input parameter values are valid values
- Ensures that the expenditure type is classified with an expenditure type class of *Straight Time* or *Overtime*
- Validates that the transaction passes all transaction controls validation rules, including logic in transaction control extensions
- Determines the billable status of the related transaction using the same method used for all Oracle Projects transactions
- If the transaction is valid, creates related labor expenditure item that:
 - Is attached to the source transaction's expenditure
 - Has quantity of 0 (to maintain the number of hours for the employee's timecard, even when related items exist for that timecard)
 - Uses the source transaction's project and task unless you specify project and task input values
 - Uses the source transaction's expenditure item date and bill hold value
 - Uses the source transaction's organization unless you specify an override organization
 - Rounds the raw cost to 2 decimal places and uses the raw cost rate that you passed into it

What Happens if the Source Transaction is Not Costed?

If the source transaction is not costed because it is rejected during cost distribution, the labor transaction extension is not called for that transaction. Therefore, related transactions for rejected source transactions will not be created or costed.

Can I Create Multiple Related Transactions for a Single Item?

Yes, you can create multiple related transactions for a given source transaction based on the logic in your labor transaction extension.

How Do I Identify Related Transactions?

You identify related transactions by referring to the expenditure item id of the source transaction.

In the expenditure inquiry forms and reports within Oracle Projects, you can identify related transactions based on your implementation data used for related transactions, particularly the expenditure type. Oracle Projects displays all related transactions immediately after the source transaction.

What if Some Parameters Are Not Passed to CreateRelatedItem?

All parameters that are not passed to the related transactions procedure are read from the source transaction; except for quantity, billable status, and expenditure type. The quantity is set to 0 for the related transactions. The billable status is derived based on the transaction controls and transaction control extensions that you define. Expenditure type is a required parameter that you provide.

What if a Related Transactions Does Not Pass Validation?

If a related transaction does not pass validation in the CreateRelatedItem procedure, Oracle Projects does not create the related item, and marks the source transaction with a cost distribution rejection reason specifying that an error was encountered in the labor transaction extension procedure. The source item is not marked as cost distributed and is displayed in the exception output report in the Distribute Labor Costs process.

Where Can I Establish the Billable or Capitalizable Status of Related Transactions?

The related transaction's billable or capitalizable status is derived using transaction controls and task billable or capitalizable status like all other transactions. You can further derive the billable or capitalizable status of related transactions by including logic in the transaction control extension procedure to look at related transactions based on certain criteria, and then setting the billable or capitalizable flag. The transaction control package, which establishes the billable or capitalizable status, is called within the `CreateRelatedItem` procedure.

How Does the Transaction Controls Procedure Identify Related Transactions?

The transaction control procedure, which establishes the billable or capitalizable status and validates transactions, is called within the `CreateRelatedItem` procedure.

The transaction control extension identifies related transactions by the `x_module` of the `CreateRelatedItem` procedure. When the calling procedure (`CreateRelatedItems`) calls transaction controls, the `x_module` is set to *CreateRelatedItem*.

Can I Calculate Raw Cost Amounts of Related Transactions Using Burden Costing?

You can use the Cost Plus API to determine raw cost amounts of related transactions based on your burden costing setup.

See Also

Cost Plus Application Programming Interface (API): page 19 – 147

Adjusting Related Transactions

Whenever an adjustment is performed on a source transaction that requires the item to be backed out (transfer, split, manual reversal through the Pre-Approved Expenditure form), Oracle Projects creates reversals for the related transactions of the source transaction.

You cannot independently process related transactions from the source transactions. However, there are adjustment actions for which related transactions are processed with the source transaction.

See Also

Adjustments to Related Transactions: page 4 – 34

Labor Billing Extensions

Labor billing extensions allow you to derive labor billing amounts for individual labor transactions. You can use labor billing extensions to implement unique labor billing methods. Some examples of labor billing extensions you may define are:

- Bill overtime premium hours at cost
- Bill based on volume of work performed

Processing

Oracle Projects processes labor billing extensions for activity based billing during revenue generation. During processing, if Oracle Projects encounters a transaction that has a derived bill amount from a labor billing transaction, it skips the standard bill amount and rate calculation section of the revenue process for that transaction.

See Also

Revenue Flow: page 8 – 28

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Labor Billing Extensions

Consider the following design issues for labor billing extensions:

- What are the conditions and circumstances in which you cannot use the standard, activity based billing methods (identified by the WORK distribution rule) supported by Oracle Projects?
- How is the bill amount calculated in these cases?
- How do you identify labor transactions that meet these conditions?
- How do you store rates and other information that your calculations may require? How are the rates and other information maintained?

- What are the exception conditions for your labor billing extension? What is the exception handling if you cannot find a rate that should exist?

See Also

Designing Client Extensions: page 19 – 5

Writing Labor Billing Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your labor billing extension procedures. The name of the package is **PA_Client_Extn_Billing**, the name of the procedure is **Calc_Bill_Amount**.

Print out and review the following files before you begin writing labor billing extensions. The files are located in the Oracle Projects admin / sql directory.

PAXICTMB.pls.	Labor Billing Extension Package Body Template. This file contains the procedure that you modify to implement labor billing extensions. You can define as many procedures as you like within this package or within the predefined procedure.
PAXICTMS.pls	Labor Billing Extension Package Specification Template. If you create procedures within the package outside the predefined procedure, you must also modify this file.

PA_Client_Extn_Billing.Calc_Bill_Amount

Table 19 – 12 lists the parameters that Oracle Projects provides for the labor billing extension.

Parameter	Usage	Type	Description
x_expenditure_item_id	IN	NUMBER	The identifier of the expenditure item.
x_sys_linkage_function	IN	VARCHAR2	The expenditure type class of the expenditure item.
x_amount	IN OUT	NUMBER	The bill amount.
x_bill_rate_flag	IN OUT	VARCHAR2	Indicates if bill rate should be set.
x_status	IN OUT	NUMBER	The status of the procedure.

Table 19 – 12 (Page 1 of 1) Labor Billing Extension Parameters

Additional Information About Parameters

Using Bill Rate

Return one of the following values as the x_bill_rate_flag parameter value to specify if the amount that you have derived is based on a bill rate or a percent markup:

- B (specifies bill rate)
- M (specifies markup, default if null)

If you specify that your amount is based on a bill rate, Oracle Projects populates the bill rate of the expenditure item by dividing the bill amount by the number of hours. If you specify that your amount is a markup, Oracle Projects does not set the bill rate.

Using Status

Use the x_status parameter to handle error conditions for your procedure. This parameter indicates the processing status of your extension as follows:

x_status = 0	The extension executed successfully.
x_status < 0	An Oracle8 error occurred and the process did not complete. Oracle Projects writes an error message to the process log file and rolls back the transactions processed for the entire project.
x_status > 0	An application error occurred. Oracle Projects writes a rejection reason to PA_EXPENDITURE_ITEMS.REV_DIST_REJECTION_CODE and does not mark items as revenue distributed. You can review the rejection reason in the revenue generation exception report.

Overtime Calculation Extension

The overtime calculation extension allows you to define your own rules to implement company-specific overtime calculation policies. The extension calculates overtime costs and charges them to an indirect project other than the project where the labor was charged.

If you want to charge overtime to the project where the labor was charged, consider creating items via the labor transaction extension. See: *Labor Transaction Extensions*: page 19 – 34.

For more information on the context and setup of overtime calculations, see: *Implementing Overtime Charged to an Indirect Project*: page 18 – 4.

Processing

Oracle Projects calls the Overtime Calculation Extension during the Distribute Labor Costs process.

See Also

Tracking Overtime and Premium Labor Costs: page 18 – 2

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Overtime Calculation Extensions

Oracle Projects provides a template Overtime Calculation extension. You can use the template to understand the extension, and then make appropriate changes to meet your business needs. Before modifying the extension, read the following essay and related case studies on implementing overtime: *Tracking Overtime and Premium Labor Costs*: page 18 – 2.

Implementing Your Company's Overtime Calculation Extension

If you decide to use automatic overtime calculation, you can implement your company's overtime policies using the template Overtime Calculation extension as a starting point.

Your technical staff can customize the Overtime Calculation extension to accommodate the overtime rules that your business uses.

We recommend that you complete the following steps to implement your company's Overtime Calculation extension:

- Define and document your overtime policy
- Use your documented overtime policy to determine the kind of implementation data you need to drive automatic overtime calculation. This implementation data may include compensation rules, expenditure types, labor cost multipliers, and an overtime project and tasks
- Define the implementation data necessary to drive automatic overtime calculation
- Have your technical staff code your overtime policy in the Overtime Calculation extension
- Test your implementation data and Overtime Calculation extension to ensure that it correctly implements your company's overtime policies

A few additional notes about implementing the Overtime Calculation extension are:

- Define all overtime expenditure types with an end date so that timecard clerks cannot enter overtime through the Pre-Approved Expenditures window
- Base automatic overtime calculation on weekly overtime rules. Oracle Projects is designed to process weekly timecards; all expenditure item dates of a timecard must be within the expenditure week ending date of the timecard. Therefore, automatic overtime calculation is most easily performed based on weekly overtime rules

How the Overtime Calculation Extension Processes Overtime

The Overtime Calculation extension template follows these steps to process overtime:

- Determines all employees and corresponding weeks which may include new overtime to process. The Overtime Calculation extension calculates and creates overtime only for employees with timecards processed in the run of Distribute Labor Costs that calls the Overtime Calculation extension. These employees and weeks are identified by the request_id of the straight time expenditure items that are costed before the Overtime Calculation extension is called.
- Sums the hours required to calculate overtime for identified employees and weeks. The standard Overtime Calculation extension sums the total hours for the week and the total hours for each day of the week, relying on the timecard entry validation rule that all labor expenditure item dates must be within the expenditure week ending date of the timecard.
- Calculates overtime hours based on the hours worked, the employee's compensation rule, and other criteria you might specify. The standard Overtime Calculation extension calculates overtime for an employee and a week based on the employee's compensation rule using the three compensation rules described in the case study. See: Implementing Overtime Charged to an Indirect Project: page 18 – 4.
- Creates overtime expenditure items for each type of overtime for which the employee is eligible. The overtime item is charged to the overtime project and appropriate overtime task that is specified in the Overtime Calculation extension using the overtime expenditure type defined for the employee's compensation rule. The expenditure item date is set to the week ending date. The expenditure item is assigned the labor cost multiplier that is associated with the overtime task to which it is charged.

The extension creates a new expenditure for each person and week that has new overtime items. The new expenditures are assigned to an expenditure batch created in the Overtime Calculation extension. The expenditure batch name is based on the Request ID number, and uses the prefix "PREMIUM". For example, an expenditure batch run under Request ID 1205 would be named *PREMIUM – 1205*.

- Lists employees with new overtime items on the Overtime Calculation Report.

After the Overtime Calculation extension has completed, the Distribute Labor Costs process costs the new overtime items.

Writing the Overtime Calculation Extension

Oracle Projects provides a template package that contains the procedures that you modify to implement overtime calculation. The name of the package is **pa_calc_overtime**.

Print out and review the following files before you begin writing the overtime calculation extension. These files are located in the Oracle Projects admin/sql directory.

PAXDLCOB.pls	Overtime Calculation Extension Body Template. This file contains the procedure that you modify to implement overtime calculation. You can define as many procedures as you like within this package or within the predefined procedure.
PAXDLCOS.pls	Overtime Calculation Extension Specification Template. If you create procedures outside the predefined procedure within the pa_calc_overtime package, you must also modify this file to include those new procedures.

We recommend that you use the *PL/SQL User's Guide and Reference Manual* and the *Oracle Projects Technical Reference Manual* as reference material while defining procedures:

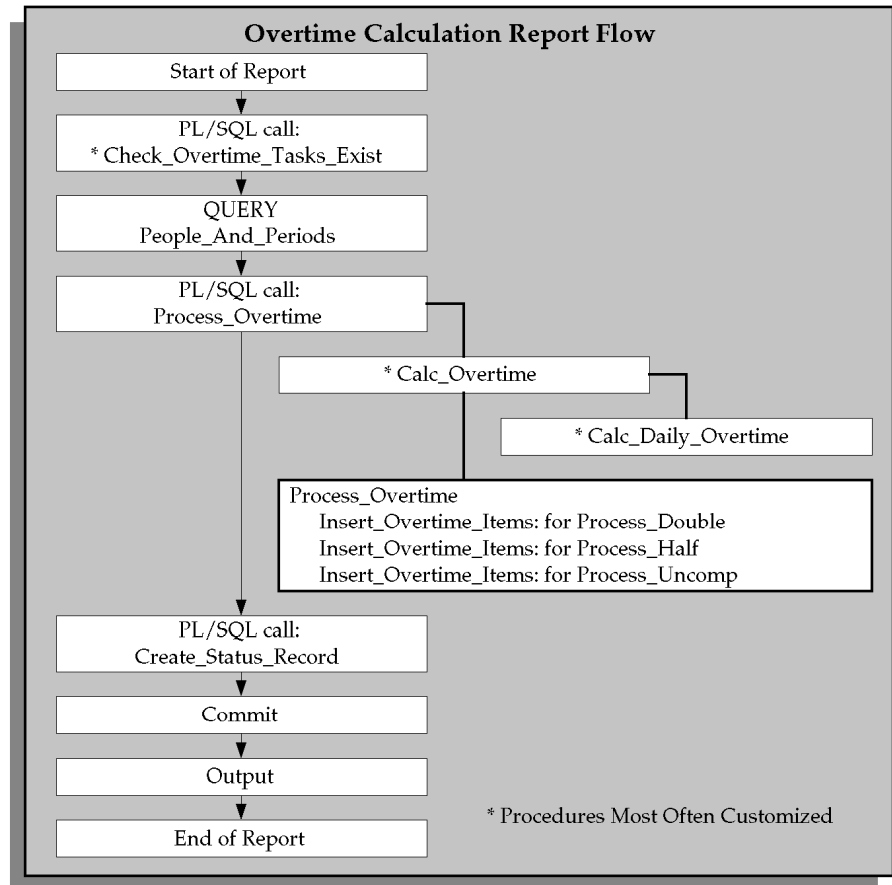
Structure of the Overtime Calculation Report

The Overtime Calculation Report is an output report generated by the Distribute Labor Costs process, using procedures in the Overtime Calculation extension. The report is only generated if you have implemented the Overtime Calculation extension.

The name of the template report is PAXDLIOT.rdf. It is located in the Oracle Projects reports directory. You do not need to modify this report. You should only need to modify the PL/SQL procedures in the overtime calculation extension template package. See: Writing the Overtime Calculation Extension: page 19 – 53.

Figure 19 – 1 shows the structure of the Overtime Calculation Report. The procedures you are most likely to modify to implement your company's overtime rules are marked with an asterisk (*) in the diagram.

Figure 19 – 1



The report first calls the `Check_Overtime_Tasks_Exist` procedure. This procedure looks for overtime projects and tasks and returns all relevant task names, up to a maximum of five. These tasks determine the column titles in the report.

Next, the report queries the database for all records processed by the Distribute Labor Costs process. The report then calls the `Process_Overtime` procedure. This procedure determines the amount and type of overtime for each employee and period, creates new expenditure items for these values, and passes the values back to the report.

Calc_Overtime and Calc_Daily_Overtime are procedures used by the Process_Overtime procedure. You can decide whether to use these procedures in your customized extension.

Your extension must also adjust overtime that relates to any adjustments made to the original transactions. For best results, use the Process_Overtime procedure to create the new overtime records, as this procedure handles all the inserts and updates to the Oracle Projects tables.

Burden Costing

Use the Burden Costing client extension to override the burden schedule ID.

Oracle Projects calls the Burden Costing extension during the cost distribution processes. You can modify the extension to satisfy your business rules for assigning burden schedules.

Description

The extension is identified by the following items:

Item	Name
Specification template	PAXCCEBS.pls
Body template	PAXCCEBB.pls
Package	pa_client_extn_burden
Procedures	override_rate_rev_id

Table 19 – 13 Burden Costing extension

Override_Rate_Rev_ID Procedure

The override_rate_rev_id procedure assigns a burden cost schedule to a transaction. This procedure uses the following parameters:

Parameter	Usage	Type	Description
p_tran_item_id	IN	NUMBER	The identifier of the transaction
p_tran_type	IN	VARCHAR2	The transaction type
p_task_id	IN	NUMBER	The task ID
p_schedule_type	IN	VARCHAR2	The rate schedule type: C = costing schedule R = revenue schedule I = invoice schedule
p_exp_item_date	IN	DATE	The expenditure item date
x_sch_fixed_date	OUT	DATE	The schedule fixed date for firm costing schedules

Table 19 – 14 override_rate_rev_id parameters (Page 1 of 2)

Parameter	Usage	Type	Description
x_rate_sch_rev_id	OUT	NUMBER	The burden schedule revision ID assigned by the extension
x_status	OUT	NUMBER	Status of the procedure: 0 = successful execution <0 = Oracle error >0 = application error

Table 19 – 14 override_rate_rev_id parameters (Page 2 of 2)

See Also

Project and Task Options: page 2 – 40

Bill Rate Schedules: page 17 – 137

Commitment Changes

When you run the PRC: Update Project Summary Amounts process, Oracle Projects checks commitments for each project to see if changes have occurred. If any of these changes have occurred, the commitment summary amounts are deleted and recreated.

If you have modified the Oracle Projects commitments view, PA_COMMITMENT_TXNS_V, you must also modify the Commitment Changes client extension to test for changes in commitments.

Writing the Commitment Changes Extension

The name of the Commitment Changes client extension package is **pa_client_extn_check_cmt**. The name of the procedure is **commitments_changed**.

Print and review the following files before you begin writing your commitment changes client extension. These files are located in the Oracle Projects admin/sql directory.

PACECMTS.pls	Package Specification Template. If you create procedures outside the predefined procedure, you must also modify this file to include the new procedures.
PACECMTB.pls.	Body Template. This file contains the procedure that you modify to customize how commitment changes are tested.

Package.Function

pa_client_extn_check_cmt.commitments_changed

The body template includes a sample procedure that contains the default coding for the COMMITMENTS_CHANGED function. By default, the procedure checks for the following changes in the system-defined commitments view:

- new commitments have been added
- a commitment has been fully or partially converted to cost (for example, a purchase order has been matched by a supplier invoice.)
- the status of a commitment has changed from Unapproved to Approved

If the commitments have changed, then the function returns a value of Y. Otherwise, it returns the value N. If Y is returned, then the summarization process rebuilds the commitment summarization amounts.

If you have modified the commitments view, you must modify this procedure so that it can determine whether the user-defined commitments have changed from the last summarization process.

The sample procedure includes the following assumptions:

- The user commitment view is PA_COMMITMENTS_OUTSIDE_SYSTEM
- The line type is *I*
- The transaction source is OUTSIDE_SYSTEM
- The column CMT_HEADER_ID stores the header ID from the user view
- The column CMT_LINE_NUMBER stores the line number from the user view
- The APPROVED_FLAG is checked for a change since the last summarization process

The sample procedure checks for the following conditions:

- commitments in PA_COMMITMENT_TXNS with a different status (the APPROVED_FLAG column) from the same commitment in the User view
- commitments in the user view that do not exist in PA_COMMITMENT_TXNS

You must determine which column or columns in your commitments view to check for a change in value, and identify the procedure to check for new commitments.

Descriptive Flexfield Mapping

Use the Descriptive Flexfield Mapping client extension to map segments of descriptive flexfield that are transferred from Payables to Oracle Projects or from Oracle Projects to Payables.

To transfer descriptive flexfields between Oracle Projects and Payables, you must set the *PA: Transfer DFF with AP* profile option to *Yes*. When this profile option is set, Oracle Projects calls the Descriptive Flexfield Mapping extension during the processes that interface transactions between the two applications.

You can modify the extension to customize how descriptive flexfields are mapped when they are transferred.

Description

The extension is identified by the following items:

Item	Name
Specification template	PAPDFFCs.pls
Body template	PAPDFFCB.pls
Package	pa_client_extn_dfftrans
Function	dff_map_segments_f
Procedure	dff_map_segments_PA_and_AP

Table 19 – 15 descriptive flexfield mapping extension

Arguments Passed by the Calling Modules

Table 19 – 16 shows the arguments that the calling modules pass to the client extension.

The calling modules are:

- PRC: Interface Expense Reports from Payables (PAAPIMP)
- PRC: Interface Supplier Invoices from Payables (PAAPIMP)
- PRC: Interface Expense Reports to Payables (PATTER)
- PRC: Interface Supplier Invoice Adjustment Costs to Payables (PAVTVC)

The aliases used in Table 19 – 16 are:

- INV = AP_INVOICES
- DIST = AP_INVOICE_DISTRIBUTIONS
- CDL = PA_COST_DISTRIBUTION_LINES
- EI = PA_EXPENDITURE_ITEMS

Calling Module	p_trx_ref_1	p_trx_ref_2	p_trx_type	p_system linkage function	p_submodule
PAAPIMP (for supplier invoices)	DIST. invoice_id	DIST. distribution_ line_number	INV. invoice_type_ lookup_code	VI	INV.source
PAAPIMP (for expense reports)	DIST. invoice_id	DIST. distribution_ line_number	'EXPENSE REPORT'	ER	INV.source
PATTER	EI. expenditure_item_id	CDL. line_num	'EXPENSE REPORT'	ER	NULL
PAVTV	EI. expenditure_item_id	CDL. line_num	INV. invoice_type_ lookup_code	VI	NULL

Table 19 – 16 arguments passed by the calling modules (Page 1 of 1)

Sample Descriptive Flexfield Mapping Extension

The client extension body file, PAPDFFCB.pls, provides a sample descriptive flexfield mapping client extension. In the example, segments are mapped based on the system linkage function of the expenditure item.

DFF_Map_Segments_F Function

The dff_map_segments_f function provides the mapping logic for descriptive flexfields segments.

The default logic maps segment *n* in the originating application to segment *n* in the receiving application. You can change this function to map the segments according to your business rules.

This procedure uses the following parameters:

Parameter	Usage	Type	Description
p_attribute_number	IN	NUMBER	The identifier of the attribute to be mapped
p_calling_module	IN	VARCHAR2	The module that calls the extension
p_trx_ref_1	IN	NUMBER	Reference information passed to the extension (see Table 19 – 16)
p_trx_ref_2	IN	NUMBER	Reference information passed to the extension (see Table 19 – 16)
p_trx_type	IN	VARCHAR2	Type of transaction (see Table 19 – 16)
p_system_linkage_function	IN	VARCHAR2	The expenditure type class function (see Table 19 – 16)
p_submodule	IN	VARCHAR2	Name of the calling submodule (see Table 19 – 16)
p_expenditure_type	IN	VARCHAR2	The expenditure type
p_set_of_books_id	IN	NUMBER	The set of books ID
p_org_id	IN	NUMBER	The organization ID
p_attribute_category	IN OUT	VARCHAR2	The context field value for the descriptive flexfield.
p_attribute_1 through p_attribute_10	IN OUT	VARCHAR2	The descriptive flexfield segment
p_expenditure_item_id	IN	NUMBER	The expenditure item ID
p_distribution_line_number	IN	NUMBER	The cost distribution line number
x_status_code	OUT	VARCHAR2	Status of the procedure

Table 19 – 17 dff_map_segments_PA_to_AP parameters (Page 1 of 1)

DFF_Map_Segments_PA_and_AP Procedure

The dff_map_segments_PA_to_AP procedure calls the function dff_map_segments_f, and stores the mapped segments in the parameters p_attribute_1 through p_attribute_10.

You can modify this procedure to customize the attribute category mapping. An example of code for mapping the attribute category is provided in the extension.

This procedure uses the following parameters:

Parameter	Usage	Type	Description
p_calling_module	IN	VARCHAR2	The module that calls the extension
p_trx_ref_1	IN	NUMBER	Reference information passed to the extension (see Table 19 – 16)
p_trx_ref_2	IN	NUMBER	Reference information passed to the extension (see Table 19 – 16)
p_trx_type	IN	VARCHAR2	Type of transaction (see Table 19 – 16)
p_system_linkage_function	IN	VARCHAR2	The expenditure type class function (see Table 19 – 16)
p_submodule	IN	VARCHAR2	Name of the calling submodule (see Table 19 – 16)
p_expenditure_type	IN	VARCHAR2	The expenditure type
p_set_of_books_id	IN	NUMBER	The set of books ID
p_org_id	IN	NUMBER	The organization ID
p_attribute_category	IN OUT	VARCHAR2	
p_attribute_1 through p_attribute_10	IN OUT	VARCHAR2	The descriptive flexfield segment number
x_status_code	OUT	VARCHAR2	Status of the procedure

Table 19 – 18 dff_map_segments_PA_and_AP parameters (Page 1 of 1)

See Also

Profile Options in Oracle Projects: page B – 2

Receivables Installation Override

The Receivables Installation Override client extension allows you to use a third-party receivables system for the majority of your receivables functionality, yet have the ability to import customer data from Receivables. Without this client extension, you can only import customer data with a full installation of Receivables.

To use this capability, you must complete a *full* installation of Receivables, then override the installation mode to *shared*, using the Receivables Installation Override extension.

 **Warning:** Do not override a shared Receivables installation to full installation mode. This client extension is only intended for overriding a full installation to shared mode.

The following conditions exist when you override the installation to shared mode:

- The Tax Code fields are disabled in all windows where they appear.
- The GL date for receivables invoices is calculated based on GL periods, rather than Receivables periods.

If you override the Receivables installation, you can use function security to disable functions that are not available with a standard shared Receivables installation, such as *Invoice: AR Invoice* (drill down to Oracle Receivables to view an invoice).

 **Warning:** You must disable the Invoice: Write-Off function, as attempting to create write offs will cause processing problems.

This extension is called by the Interface Invoices to Receivables process.

Description

The extension is identified by the following items:

Item	Name
Specification template	PAPARICS.pls
Body template	PAPARICB.pls

Table 19 – 19 Receivables installation override extension

Item	Name
Package	pa_override_ar_inst
Procedure	get_installation_mode

Table 19 – 19 Receivables installation override extension

Get_Installation_Mode Procedure

The `get_installation_mode` procedure returns an installation mode to the calling program.

This procedure uses the following parameters:

Parameter	Usage	Type	Description
<code>p_ar_inst_mode</code>	IN	VARCHAR2	The input mode (mode in which Oracle Receivables is installed)
<code>x_ar_inst_mode</code>	OUT	VARCHAR2	The output (override) installation mode

Table 19 – 20 get_installation_mode parameters (Page 1 of 1)

Modifying the Get_Installation_Mode Procedure

The default procedure includes the following PL/SQL statement:

```
x_ar_inst_mode := p_ar_inst_mode
```

To override your full installation of Receivables to a shared mode, replace the statement above with the following statement:

```
x_ar_inst_mode := 'S'
```

Billing Extensions

Billing Extensions (Vision Services: USD)

Name: **Cost-to-Cost Revenue**

Procedure: **pa_billing.ccrev**

Description: **Revenue amount based on ratio of actual cos**

Order: **10000**

Effective Dates

From: **01/JAN/1951**

To: **01/JAN/1994**

☒ Predefined flag [...]

Default Event Values

Type: **Fee**

Description: **Cost-to-Cost Revenue Amount**

Default Budget Type

Cost: **Approved Cost Budget**

Revenue: **Approved Revenue Budge**

Calling Process

☒ Revenue

☐ Invoice

Required Inputs

☐ Amount

☐ Percentage

Other Parameters

☐ Project Specific

☒ Transaction Independent

Calling Place

☐ Pre Processing

☐ Post Processing

☐ Delete Processing

☐ Adjustment Processing

☒ Regular Processing

☐ Post Reg Processing

☐ Cancel Invoice Processing

☐ Write-Off Invoice Processing

Billing extensions allow you to implement and automate company-specific billing methods. With billing extensions, you can automatically calculate summary revenue and invoice amounts during revenue and invoice generation based on unique billing methods. These billing amounts are accounted for using events. Some examples of billing extensions you can implement are:

- Fee
- Surcharge
- Retention

This essay describes the implementation steps of billing extensions, as well as the processing of billing extensions and automatic events within Oracle Projects.

We also provide you with detailed information about designing and writing billing extensions, including information about public procedures and views you can use in your billing extensions to derive

additional information. Finally, we provide you with information to help you test and debug billing extensions.



Warning: The public procedures and views in the Oracle Projects billing extensions are intended for use **only** in billing extensions for the Generate Draft Revenue/Generate Draft Invoice process. These public procedures and views will not work standalone or in any other client extensions.



Warning: Do not use the PL/SQL commands Commit and Rollback in your billing extension code.

Overview of Billing Extensions

To use the billing extension functionality, you must implement billing extensions and assign them to projects. Oracle Projects processes active billing extensions and accounts for the calculated revenue and invoice amounts.

Implementation

To implement your company-specific billing methods, you first design and write rules to calculate billing amounts using PL/SQL procedures. You then enter the billing extension definition in Oracle Projects to specify additional information (such as the procedure name to call) that is used by the revenue and invoice programs to process the extension.

Assignments

You assign billing extensions to project types, projects, or top tasks. When you assign a billing extension, you can specify a percentage and/or an amount to use as inputs into your billing extension calculation.

Budget Type

You can specify which budget type to use as input to calculations that use budgeted amounts. If no value is given for budget type, the billing extension uses the Approved Cost Budget and/or Approved Revenue Budget. See: Retrieving Budget Amounts: page 19 – 89.

Processing

When you run the revenue or invoice processes, Oracle Projects looks for active billing assignments. When an assignment is found, the processes read the billing extension definition and call the appropriate procedure. If there are multiple active assignments for a project or task, Oracle Projects calls the extension in ascending order based on the processing order specified in the billing extension definition.

Oracle Projects executes top task level assignments once for each top task. Billing extensions assigned to the project and the project type are executed once for each project, except in the case of task level funding. If a project uses task level funding, Oracle Projects executes billing extensions assigned to the project and the project type, once for each authorized top task on the project.

Automatic Events

Your billing extension calculates revenue and invoice amounts and creates one or more *Automatic* events to account for the revenue and invoice amounts. Oracle Projects processes these events as it does other manually entered events. You can store audit amounts for these events in the audit columns of the Events table.

Automatic events are events having an event type classification of *Automatic*. With automatic events, you can increase or decrease revenue and invoice amounts. You can also independently specify revenue and invoice amounts for the events. If an event has both a nonzero revenue amount and a nonzero invoice amount, you must use the same sign for both amounts. Some examples of revenue and invoice amounts for these events are:

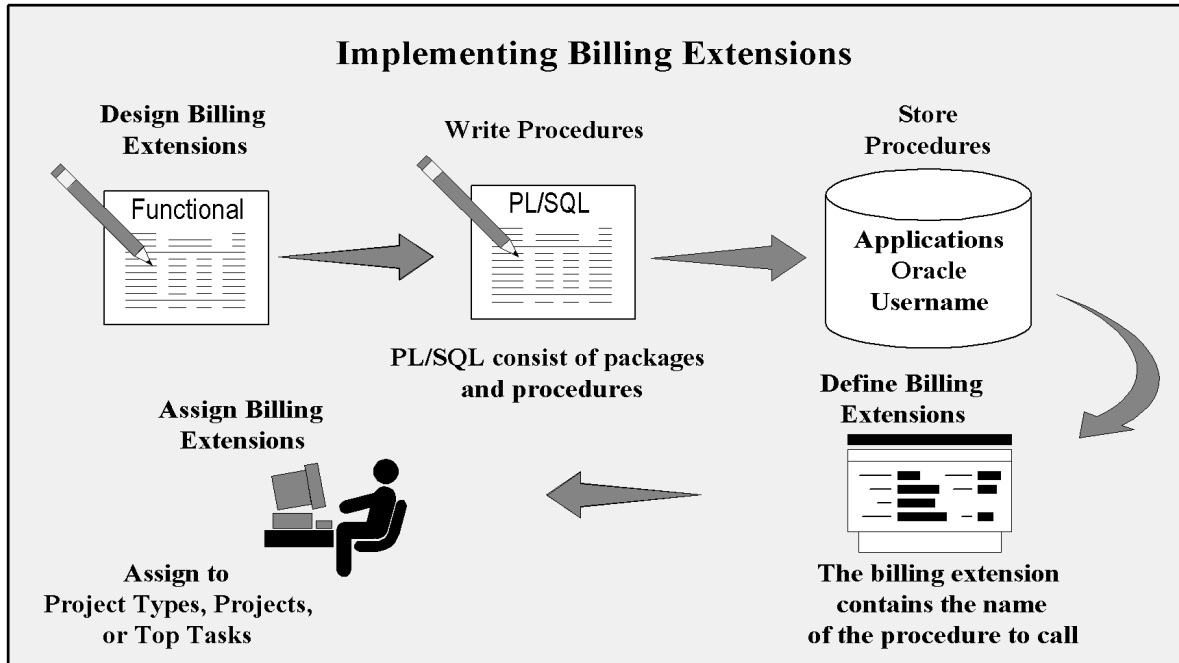
- Revenue = \$100, Invoice = \$0
- Revenue = \$100, Invoice = \$200
- Revenue = -\$100, Invoice = -\$100
- Revenue = \$0, Invoice = -\$100

See Also

Event Types: page 17 – 162

Overview of Implementation Steps

Figure 19 – 2



To implement billing extensions in Oracle Projects according to your company's method of doing business, perform the following steps.

Step 1 Design billing extensions

Carefully plan the definition of billing extensions before you begin writing them. Typically, the logic of your billing extensions are dependent on your company's implementation of Oracle Projects. Consider the following issues when designing your billing extensions:

- Logic of billing extensions
- Additional implementation data required

Step 2 Write and store PL/SQL procedures

After you design your billing extensions, write the PL/SQL procedures that define the logic of the billing extensions.

After you write your procedures, store them in the database and test them to ensure that your billing extension logic works as expected.

Step 3 Define billing extensions

Define your billing extensions, which specify the PL/SQL procedure name and additional information for Oracle Projects to use when processing billing extensions.

You use the Billing Extensions window to define billing extensions.

This step assumes that an event type has already been defined for the default event type. For a discussion of automatic events created by billing extensions, see: Automatic Events: page 19 – 69.

Step 4 Assign billing extensions to project types

Assign billing extensions to the appropriate project types if you have defined non-project-specific billing extensions. Your project users will assign the project-specific billing extensions to projects and tasks as they define projects.

You use the Project Types form to assign billing extensions to project types.

See Also

Designing Billing Extensions: page 19 – 71

Writing Billing Extension Procedures: page 19 – 84

Defining Billing Extensions: page 19 – 96

Defining Project Types: page 17 – 203

Designing Billing Extensions

Before you begin designing billing extensions, you should familiarize yourself with the three classes of billing extensions to understand the complexity of the business problem you are trying to solve.

There are also specific questions of client extension design that are unique to determining the requirements and logic of your billing

extensions. We list these questions in the pages that follow, and then address some of these issues in further detail in the Concepts of Billing Extension Definitions section: page 19 – 74.

Understanding Billing Extensions Classes

There are three primary classes of billing extensions that you can write; the classes differ by how you calculate the revenue and invoice amounts:

Class 1: Based on a function of the revenue and invoice amounts included on draft revenue and invoices

An example is a Surcharge billing extension, which is typically a percentage of the invoice amount. This is the simplest class of billing extension to design and write.

Class 2: Based on values independent of the amounts included on draft revenue and invoices.

An example is the percent complete revenue accrual method, which is based on the physical percent complete entered for the project multiplied by the budget revenue amount. The calculated amount is independent of other amounts included on the revenue and invoice. In many cases, this class of billing extensions may be the only method used to calculate revenue and invoice amounts for the project, particularly if you are using Event based revenue accrual and invoicing.

Class 3: Based on the attributes of a group of transactions included on draft invoices, for which the billing extension calculates the amount to bill for these transactions.

For example, you may wish to calculate the revenue and invoice amounts based on number of days worked, rather than the actual hours worked which are recorded on the timecard. Another example is volume discounts on an invoice, in which you provide discounts based on the volume of transactions billed. You calculate the amount to bill for the group of transactions without specifying a bill amount for each transaction.

To properly track which individual transactions are billed using an automatic event, you must set up your projects to include these transactions on an invoice, but without an invoice amount. These transactions must have a nonzero revenue amount and a invoice amount of zero. Oracle Projects includes these transactions on the invoice on a net zero adjustment line which you cannot review in the forms, but that you can read from the database in your billing

extension. You can set up a project to process transactions in this way by using different revenue and invoice burden schedules; the revenue schedule determines the appropriate revenue amounts and the invoice schedule calculates a invoice amount equal to zero.

Oracle Projects links the detail transactions to the invoice on a net zero adjustment invoice line, and you hold and account for the summary bill amount for these transactions using an automatic event included on the invoice. You can then write custom reports to list the detail transactions that backup the summary event amount.

You can only implement this class of billing extensions for invoicing amounts. You cannot use this class for revenue amounts calculated during revenue generation.

Designing Billing Extensions

You should carefully design billing extensions before implementing them in Oracle Projects. Careful planning of your billing extension helps to ensure that you are calculating and accounting for revenue and invoice amounts according to your company-specific rules. See: Designing Client Extensions: page 19 – 5.

You should consider the additional design issues for billing extensions:

- Are you calculating a revenue amount, an invoice amount, or both? Are the amounts generated during revenue accrual, invoice generation, or both?
- How are the amounts calculated? What are the inputs to the calculation?
- How are the inputs derived?
- How are the amounts processed: (1) for reporting purposes (2) for accounting purposes, (3) for invoicing?
- How are the attributes of the automatic event set: event type, event organization, event description, completion date?
- Under what conditions is this calculation used? What types of projects? What types of billing terms?
- How is the billing extension processed for adjustments? Adjustments are defined as revenue credits or invoice credit memos, based on other transactions.
- Can this billing extension be called with other billing extensions on the same project/task? If so, what is the dependency and order of your billing extensions?

- What is the exception handling if some input values cannot be found?
- How is the logic affected if the inputs change over time?
- Is there a limit on the amount calculated? If so, what is the logic?
- Are there implications of the level at which the project is funded – either the project level or the top task level? If so, what are they?

Once you answer these questions, you should have the appropriate information to define a billing extension in Oracle Projects and to document the functional specifications for your technical resource to use in writing the PL/SQL procedure.

Concepts in Billing Extension Definitions

When you enter billing extension definitions, you specify parameters that specify how your billing extension is processed in Oracle Projects. This section explains some of these parameters.

Calling Process

You specify if the billing extension is called by the revenue generation program, the invoice generation program, or both programs.

When you call billing extensions during revenue generation, you can create events with a revenue amount, or with a revenue amount and a bill amount, as long as the revenue amount is nonzero.

When you call billing extensions during invoice generation, you can create events with a bill amount, or with a revenue amount and a bill amount, as long as the bill amount is nonzero.

The following table provides examples of events with various revenue and bill amounts that you can create in the two calling processes.

Billing Extension	Event	Revenue Amount	Bill Amount	Comments
Called in Generate Draft Revenue				
1	1	100	100	Bill amount is not processed until revenue for the event is distributed

Billing Extension	Event	Revenue Amount	Bill Amount	Comments
2	2	100	–	Revenue event only
Called in Generate Draft Invoice				
3	1	100	100	Revenue amount is not processed until the invoice on which the event is billed is released
4	2	–	100	Invoice event only

Table 19 – 21 Calling Process: Example Events (Page 2 of 2)

If you create an event with both revenue and bill amounts, the revenue amount and the bill amount do not have to be the same. You can create positive or negative event amounts with billing extensions.

You can create a billing extension that is called by both revenue generation and invoice generation. You would do this if your billing calculation is similar for both the revenue and bill amounts, with the exception that the event revenue amount is based on the accrued revenue, and the event bill amount is based on the amount invoiced. You can write your procedure to have the same logic for the calculation but to use the appropriate input of either accrued revenue or amount invoiced into your calculation. With this approach of writing one procedure and one billing extension, you can avoid duplication of your logic. In addition, your project users only need to assign one billing extension to their projects, instead of two billing extensions – one for revenue accrual and one for invoicing.

Calling Place

There are several predefined places within the revenue generation and invoice generation programs where your billing extension can be called when processing a project:

- Pre-Processing
- Delete Processing
- Cancel Invoice Processing
- Write-Off Invoice Processing
- Adjustment Processing
- Regular Processing

- Post-Regular Processing
- Post-Processing

The following figures illustrate the order in which these steps are executed after the project is selected for revenue accrual or invoice generation.

Figure 19 – 3

When Revenue Processes Call Billing Extensions

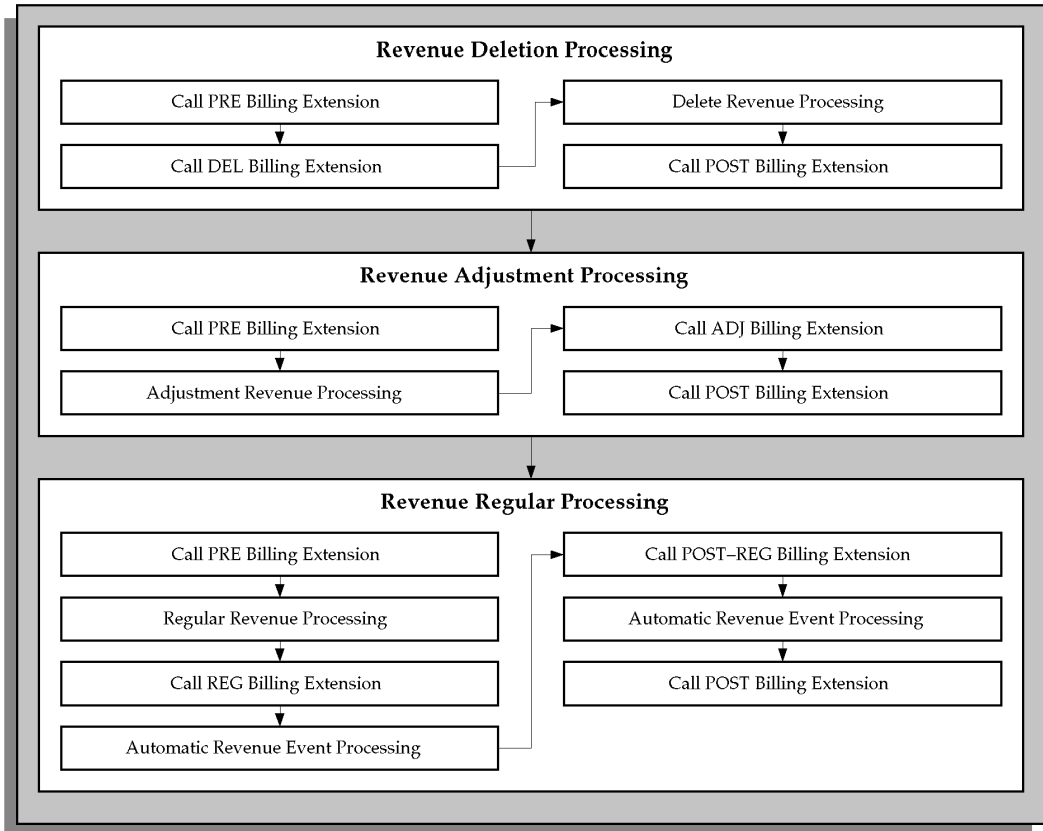
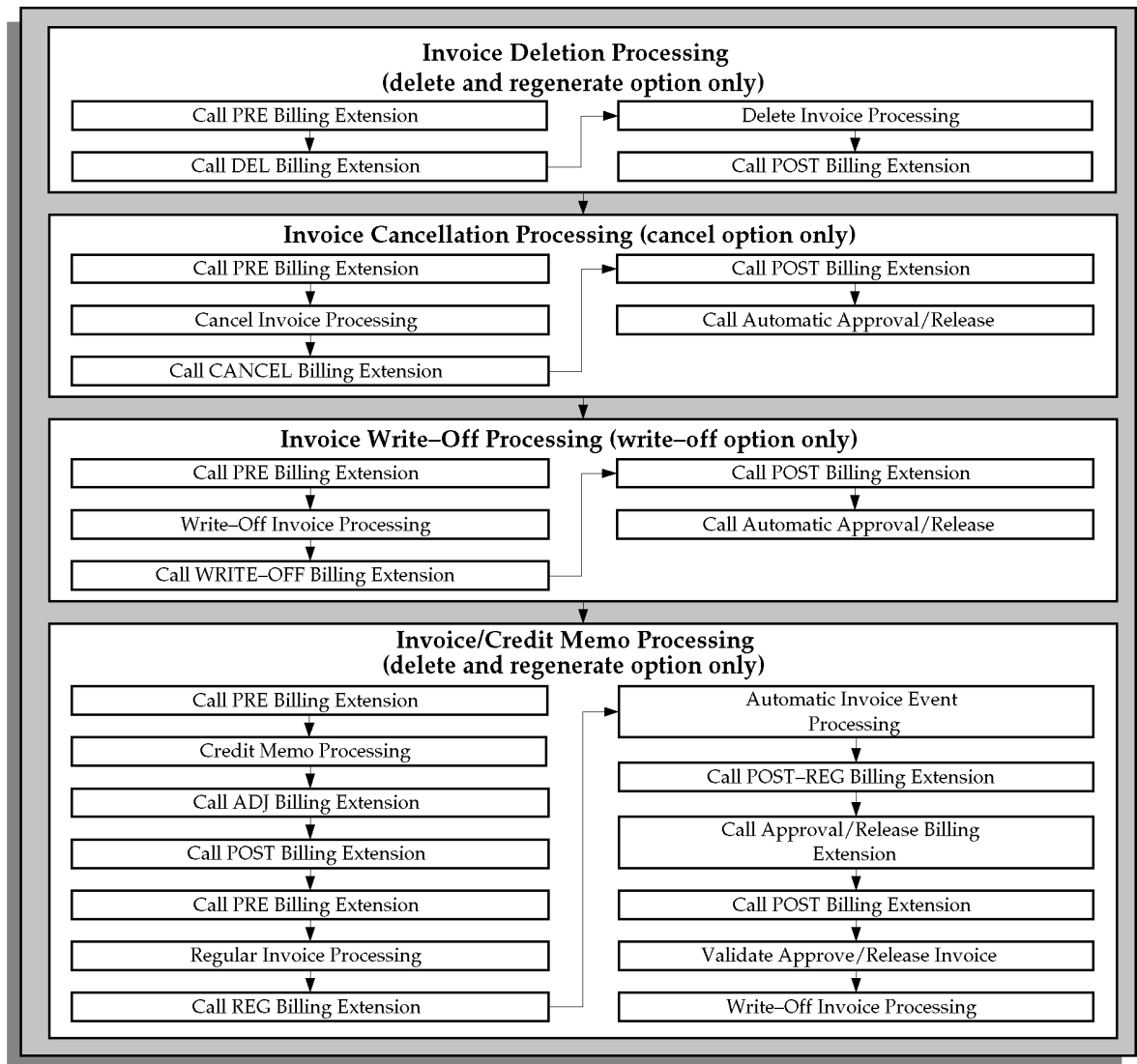


Figure 19 – 4

When Invoice Processes Call Billing Extensions



Pre-Processing

Pre-processing billing extensions are called before any revenue accrual or invoice calculations for a project. The Generate Draft Revenue and Generate Draft Invoices processes do not allow you to create automatic events in this calling place. An example of a preprocessing billing extension is to place all unbilled, unpaid supplier invoice items on hold, so that they are not billed; and to release the billing hold on any unbilled, paid supplier invoice transactions that are on hold. You can

then bill the paid supplier invoice items during standard invoice processing.

Delete Processing	<i>Delete processing</i> billing extensions are called after revenue is billed and before any revenue accrual or invoice calculations for a project; this is only applicable to invoicing billing extensions. The Generate Draft Invoices process does not allow you to create automatic events in this calling place.
Cancel Invoice Processing	<i>Cancel invoice processing</i> billing extensions are called after the invoice cancellation for a project. This is only applicable to invoice billing extensions. The Generate Draft Invoices process does not allow you to create automatic events in this calling place.
Write-Off Invoice Processing	<i>Write-off invoice processing</i> billing extensions are called after the invoice write-off processing for a project. This is only applicable to invoice billing extensions. The Generate Draft Invoices process does not allow you to create automatic events in this calling place.
Adjustment	<i>Adjustment</i> processing creates crediting revenue and invoices that credit existing revenue or invoices. Oracle Projects creates crediting revenues and invoices due to changes in revenue or invoice amounts or in the revenue general ledger account. These credits are created for one or more individual transactions which have previously been processed and included on a draft revenue or invoice; these changes in amounts or accounts result from adjustment actions on the individual transactions. You can create automatic events in this step. If you transfer these events to Oracle Receivables for autoinvoicing, link the automatic event invoice lines to their corresponding events in the original invoice. See: Inserting Events: page 19 – 87. Oracle Projects calls a billing extension in this step after all of the crediting revenue and invoices are created.
Regular	<i>Regular</i> processing creates non-crediting revenue and invoices. Oracle Projects creates revenue and invoices based on individual transactions and events that have not previously been processed for revenue accrual and invoicing. You can create automatic events in this step. Oracle Projects calls a billing extension in this step after all non-crediting revenues and invoices are created.
Post-Regular	<i>Post-regular processing</i> billing extensions create events based on all prior revenue generated in order to base the calculation on the total revenue accrued, including other automatic events. An example of a post-regular processing billing extension is cost accrual based on the revenue generated. See: Revenue-Based Cost Accrual: page 8 – 80.

Post-processing billing extensions are called after all of the adjustment, regular, and post-regular processing is complete. The Generate Draft Revenue and Generate Draft Invoices processes do not allow you to create automatic events in this calling place. All of the revenue and invoice processing is complete before this step is executed. An example of a post-processing billing extension is to notify a project manager when an invoice greater than \$25,000 is created.

The following table shows an example of the different automatic events created by using different calling places for a billing extension based on a percentage of the amount invoiced.

				Automatic Event Amount	
Period	Invoice Number	Invoice Credited	Invoice Amount	Regular & Adjustment	Regular Only
1	1		1000	100	100
2	2	1	-500	-50	
	3		1500	150	100
Summary:			2000	200	200

Table 19 – 22 Calling Place: Example Events (Page 1 of 1)

The billing extension called only during regular processing accounted for the total amount invoiced, including the credited amount during regular processing as illustrated by the event created for invoice number three.

Transaction Independent

Once you determine the inputs to your calculations, you can determine if your billing extension calculation is solely dependent on other transactions being processed, or if your calculation can be executed without any other transactions being processed. Transactions refer to expenditure items and events.

Transaction independent billing extensions are executed for each project with an active billing assignment, even if there are no transactions to process. This type of billing extension relies on an input other than billable transactions on a project. If this input changes, the calculated billing amount changes, which you want to record. For

example, the cost-to-cost revenue accrual method, which relies on the budgeted cost and revenue amounts. If the budgeted cost or budgeted revenue changes, the revenue amount changes. You want to record this revenue amount change even if no other transactions are processed in revenue generation. This category includes the class of billing extensions that calculate revenue and invoice amounts based on values independent of the amounts included on draft revenue and invoices.

If you design a billing extension to be transaction independent, it will be executed in every run of the revenue or invoice processes.

Transaction dependent billing extensions are executed only if there are other transactions processed. An example of this type of billing extension is surcharge in which you calculate a percentage of the amount billed. You do not want to bill surcharge if no other transactions are billed.

Transaction dependent billing extensions are called only if billable expenditure items and events exist that need to be processed. For example, there may be new transactions that are set to Non-Billable, which are not going to generate any revenue or bill amount and will not cause the billing extension to be called. This category includes billing extensions that calculate revenue and invoice amounts based on (i) a function of the revenue and invoice amounts included on draft revenue and invoices, or (ii) the attributes of a group of transactions included on draft invoices.

The following table shows an example of transaction dependent and transaction independent billing extensions. Billing extension 1, which is transaction dependent, calculates 10% of the invoice amount. Billing extension 2, which is transaction independent, bills \$100 per period regardless of amount invoiced in that period.

				Automatic Event Amount	
Period	Invoice Number	Invoice Credited	Invoice Amount	Transaction Dependent	Transaction Independent
1	1		1000	100	100
2	2	1	-500	-50	

Period	Invoice Number	Invoice Credited	Invoice Amount	Transaction Dependent	Transaction Independent
	3		1500	150	100
3	4		–	–	100
Summary:			2000	200	300

Table 19 – 23 Transaction Independent Example: Example Events (Page 2 of 2)

Relationship between Calling Place and Transaction Independent

The parameters for calling place and transaction independent are related.

You should call any transaction dependent billing extension in both regular and adjustment processing. This will ensure that all adjustments, including those that do not result in a new non-crediting amount, are properly accounted for. For example, you may have a non-billable adjustment which reverses amounts, but does not process any new non-crediting amounts.

You only need to call your transaction independent billing extension once during processing for a project, which can be done during regular processing. You typically do not call transaction independent billing extensions during adjustment processing.

The table below summarizes how you should set up the calling place and transaction independent parameters in your billing extension definition, based on the type of billing extension calculation.

Billing Extension Calculation	Regular	Adjustment	Transaction Independent
Based solely on transactions	✓	✓	
Based on inputs other than transactions	✓		✓

Table 19 – 24 Calling Place and Transaction Independent Parameters (Page 1 of 1)

There are exceptions to the general rule described in Table 19 – 24. You may define a billing extension as transaction dependent, but to be called only during regular processing. For example, you want to

charge interest on outstanding invoices, but only want to include the interest on an invoice that has other transactions included on it. The interest calculation itself is a transaction independent calculation, but you define it as transaction dependent so that it is calculated only when other transactions are processed for an invoice. You do not want to create invoices with only an interest amount.

Project-Specific

You need to determine if your billing extension implements a company policy across projects or if it is applicable only to specific projects for which it is negotiated.

Project-specific billing extensions are those methods which are applicable only to specific projects for which they are negotiated. Project users assign these billing extensions to projects and top tasks; you cannot assign these billing extensions to project types.

Non-project-specific billing extensions are those methods which implement company policy across projects. You assign these billing extensions to project types; the billing extension applies to all projects of that project type. Project users cannot assign these billing extensions to projects.



Suggestion: You can include conditional logic in your procedure to allow exceptions to project type rules.

Event Attributes

When designing billing extensions, you can specify the attributes of automatic events that are created by billing extensions. You can use the following default values or override the defaults for any of these attributes.

Event Attribute	Comments
Event Type	Defaults to event type on billing extension; event type must have an event type classification of <i>Automatic</i> .
Event Description	Defaults to event description on billing extension.
Event Organization	Defaults to managing organization of project or task to which the event is assigned.

Table 19 – 25 (Page 1 of 2) Attributes of Automatic Events

Event Attribute	Comments
Completion Date	Accrue through date for events created during revenue generation, bill through date for events created during invoice generation.
Revenue Amount	For billing extensions called in revenue generation, must specify revenue amount. For billing extensions called in invoice generation, can optionally specify revenue amount; revenue amount is not processed until invoice on which the event is billed is released.
Bill Amount	For billing extensions called in invoice generation, must specify bill amount. For billing extensions called in revenue generation, can optionally specify bill amount; bill amount is not processed until revenue for the event is accrued.
Descriptive Flexfield Segments	Can pass any value as long as the value is valid with the descriptive flexfields you have defined for events.
Audit Columns in Events	For values used in billing extension calculations. NOTE: not displayed to the user, but available in the table. See: Insert events: page 19 – 87.

Table 19 – 25 (Page 2 of 2) Attributes of Automatic Events

Budget Attributes

When designing billing extensions, you can specify the attributes of budgets that are used by billing extensions. You can use the following default values or override the defaults for any of these attributes.

Budget Attribute	Comments
Cost Budget Type Code	Defaults to Approved Cost Budget.
Revenue Budget Type Code	Defaults to Approved Revenue Budget.

Table 19 – 26 (Page 1 of 1) Attributes of Budgets

Writing Billing Extension Procedures

Oracle Projects revenue and invoice generation programs call your billing extension procedures which define the logic to calculate and create automatic events according to your rules.

Your procedure can call other procedures or views. You can use predefined procedures and views, or you can write your own procedures. We discuss these predefined procedures and views in more detail in the pages that follow.

Procedure Template

Oracle Projects provides a template package and procedure that you use as the basis of your billing extension procedures.

Print out and review the following files before you begin writing billing extensions. The files are located in the Oracle Projects admin / sql directory.

PAXITMPS.pls	Billing Extension Package Specification Template. This file contains the procedure that you modify to implement billing extensions. You can define as many procedures as you like within this package or within the predefined procedure.
PAXITMPB.pls	Billing Extension Package Body Template. If you create procedures within the package outside the predefined procedure, you must also modify this file.

The following table lists the parameters that Oracle Projects provides for the billing extension procedure.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	Identifier of the project of the billing assignment.
X_top_task_id *	IN	NUMBER	Identifier of the top task of the billing assign. This parameter has a value in the following cases: 1) Billing extension assigned to top task 2) Project for which a billing extension is applicable is funded at the top task level. The billing extension is executed once for each authorized top task belonging to the project.

Table 19 – 27 (Page 1 of 2) Billing Extension Parameters

Parameter	Usage	Type	Description
X_calling_process	IN	VARCHAR2	Specifies whether the revenue or invoice program is calling the billing extension. The possible values of this parameter are <i>Revenue</i> or <i>Invoice</i> .
X_calling_place	IN	VARCHAR2	Specifies where the billing extension is called in the revenue or invoice program. Possible values are PRE, POST, REG, or ADJ.
X_amount	IN	NUMBER	The amount entered on the billing assignment.
X_percentage	IN	NUMBER	The percentage entered on the billing assignment.
X_rev_or_bill_date	IN	DATE	Specifies the accrue through date if called by revenue generation, or the bill through date if called by invoice generation.
X_bill_extn_assignment_id	IN	NUMBER	ID of the billing assignment being processed. Use this to select information (such as descriptive flexfield values) from the billing assignment.
X_bill_extension_id	IN	NUMBER	ID of the billing extension being processed. Use this to select information (such as descriptive flexfield values) from the billing extension definition.
X_request_id	IN	NUMBER	Request ID of the current run.
* You cannot create project level events for projects using task level funding. You must write your billing extensions so that they work if they are called with or without this parameter.			

Table 19 – 27 (Page 2 of 2) Billing Extension Parameters

Views and Procedures You Can Use

Oracle Projects provides public, predefined procedures and views that you can use within your billing extension procedures for the Generate Draft Revenue and Generate Draft Invoice processes to derive amounts and create events. These procedures are created in a package named **pa_billing_pub**.

You cannot use the public billing extension procedures or views by themselves or from any other client extension.

In the pages that follow, we provide you with a description of each procedure, information about the parameters available for the procedure, and any additional information you need to use the procedure in your billing extension. Use these procedures and views to:

- Calculate amounts: page 19 – 86
- Identify transactions processed in the current run: page 19 – 86
- Insert events: page 19 – 87
- Retrieve budget amounts: page 19 – 89
- Handle error conditions: page 19 – 91

Calculating Amounts

Oracle Projects provides two views that you can use to identify detail expenditure items included on draft revenue and draft invoices processed in a given run. Use these views in your calculations for transaction dependent billing extensions. The views display the detail transactions processed for the context in which a billing extension is called, which consists of a project, a top task (if task level assignment), a calling place, and a request ID.

- `PA_BILLING_REV_TRANSACTIONS_V` (use this in procedures that are called during revenue generation)
- `PA_BILLING_INV_TRANSACTIONS_V` (use this in procedures that are called during invoice generation)

Identifying Process Run Information

Oracle Projects provides four views that you can use to identify the detail revenue and invoice transactions processed in the current run.

- `PA_BILLING_REV_DELETION_V` displays the draft revenues that will be deleted in the current draft revenue generation run. Use this view in the billing extension called during the deletion processing of revenue generation.
- `PA_BILLING_REV_INV_DELETION_V` displays the draft invoices that will be deleted in the current draft revenue generation run. Use this view in the billing extension called during the deletion processing of revenue generation.
- `PA_BILLING_INV_DELETION_V` displays the draft invoices that will be deleted in the current draft invoice generation run.

Use this view in the billing extension called during the deletion processing of invoice generation.

- PA_BILLING_INV_PROCESSED_V displays the invoices that were processed in the current run.

Inserting Events

Use the insert_events procedure to create automatic events in the events table. You must use this procedure when creating events using billing extensions, as it contains validation that ensures the data integrity of the events that you create.

If this procedure encounters an error, it displays an error message in the log file of the process that called the procedure and does not create an event.

Package.Procedure

pa_billing_pub.insert_event

Listed below are the parameters available for the insert_event procedure.

Parameter	Usage	Type	Description
X_rev_amt	IN	REAL	Revenue amount of event.
X_bill_amt	IN	REAL	Bill amount of event.
X_project_id	IN	NUMBER	ID of the project to which the event is assigned.
X_event_type	IN	VARCHAR2	Event type of event. If a default is not specified, you must provide a value. Event type must have an event type classification of AUTOMATIC.
X_top_task_id	IN	NUMBER	ID of the top task to which the event is assigned.
X_organization_id	IN	NUMBER	ID of event organization.

Table 19 – 28 (Page 1 of 2) Insert Event Parameters

Parameter	Usage	Type	Description
X_completion_date	IN	DATE	Completion date of event.
X_event_description	IN	VARCHAR2	Description of event. If you do not specify a default event description, you must provide a value here.
X_event_num_reversed	IN	NUMBER	Original automatic event number.
X_attribute_category	IN	VARCHAR2	Descriptive flexfield context.
X_attribute1–10	IN	VARCHAR2	Descriptive flexfield segments.
X_audit_amounts1–10	IN	NUMBER	Audit amounts for events.
X_cost_budget_type_code	IN	VARCHAR2	Audit cost budget type code.
X_rev_budget_type_code	IN	VARCHAR2	Audit revenue budget type code.
X_error_message	OUT	VARCHAR2	Error message text.
X_status	OUT	NUMBER	Status indicating whether an error occurred. Valid values are: =0 Successful validation <0 Oracle error (message will be written into a log file) >0 Application error

Table 19 – 28 (Page 2 of 2) Insert Event Parameters

If the billing extension is called by revenue generation only, you must set the revenue amount to a nonzero number. You can also set the bill amount. If the revenue amount is positive, the bill amount must also be positive.

If the billing extension is called by invoice generation, you must set the bill amount to a nonzero number. You can also set the revenue amount. If the bill amount is positive, the revenue amount must also be positive.

- If the billing extension creates a new automatic event from a transaction adjustment, the billing extension looks for the original event number (X_event_num_reversed). If the billing extension finds no value, you will receive the error message "You must have specified original event number for ADJ automatic event."

Oracle Projects provides a view that you can use to identify to original automatic event information of the current project, top task, and the credited invoices of the current request:

– PA_BILLING_ORIG_EVENTS_V

Retrieving Budget Amounts

Use the get_budget_amount procedure to retrieve baselined budgeted cost or revenue amounts for use in your calculations.

Package.Procedure

pa_billing_pub.get_budget_amount

Listed below are the parameters available for the get_budget_amount procedure. You must specify a value for the X2_project_id parameter for this procedure. You can optionally use the X2_task_id parameter to derive the budget amount for a task.

The parameters include input and output parameters for cost and revenue budget type codes.

Parameter	Usage	Type	Description
X2_project_id	IN	NUMBER	ID of project to retrieve baselined budget amounts.
X2_task_id	IN	NUMBER	ID of top task to retrieve current budget amounts; you must also specify the project ID when you use this parameter.
X2_revenue_amount	OUT	REAL	Baselined revenue budget amount for project or task.
X2_cost_amount	OUT	REAL	Baselined cost budget amount for project or task.

Table 19 – 29 (Page 1 of 2) Get Budget Amount Parameters

Parameter	Usage	Type	Description
p_cost_budget_type_code	IN	VARCHAR2	Cost budget type code to be used for calculating cost budget amount. If this value is not specified, the cost budget type in the billing extension setup table is used. If no value is entered in the billing extension setup table, the Approved Cost Budget is used.
p_rev_budget_type_code>	IN	VARCHAR2	Revenue budget type code to be used for calculating revenue budget amount. If this value is not specified, the revenue budget type in the billing extension setup table is used. If no value is entered in the billing extension setup table, the Approved Revenue Budget is used.
X_cost_budget_type_code	OUT	VARCHAR2	Cost budget type code that was used for calculating the cost budget in this public API.
X_rev_budget_type_code	OUT	VARCHAR2	Revenue budget type code that was used for calculating the revenue budget in this public API.
X_error_message	OUT	VARCHAR2	Error message text.
X_status	OUT	NUMBER	Status indicating whether an error occurred. Valid values are: =0 Successful validation <0 Oracle error (message will be written into a log file) >0 Application error

Table 19 – 29 (Page 2 of 2) Get Budget Amount Parameters

Error Handling

Use the insert_message procedure to create debugging and error messages in the PA_BILLING_MESSAGES table. When you encounter a problem with billing extensions, you can review these messages in the log file of the revenue and invoice processes that call the billing extension, or you can review the error message table. See the *Oracle Projects Technical Reference Manual Addendum* for more information.

Package.Procedure

pa_billing_pub.insert_message

Listed below are the parameters available for the insert_message procedure.

Parameter	Usage	Type	Description
X_inserting_ procedure_name	IN	VARCHAR2	Name of procedure that is inserting the message.
X_message	IN	VARCHAR2	The free text to display as the message in the log file.
X_attribute1–15	IN	VARCHAR2	Descriptive flexfield segments of billing message. These attributes appear in the billing messages table only.
X_error_message	OUT	VARCHAR2	Error message text.
X_status	OUT	NUMBER	Status indicating whether an error occurred. Valid values are: =0 Successful validation <0 Oracle error (message will be written into a log file) >0 Application error

Table 19 – 30 (Page 1 of 1) Insert Message Parameters

Additional Considerations for Writing Procedures

You should understand the following issues and determine how they affect your PL/SQL procedure.

Hard Limits and Automatic Events

Oracle Projects processes automatic events as it does manual events. When events are processed for a project that is at the hard limit, only those events that fully fit under the hard limit are processed. If the event amount does not fully fit under the hard limit, it is created but not processed on a draft revenue or invoice until there is enough funding available. Deleting the revenue does not delete the event; however, regenerating the revenue creates a new duplicate event. Once you raise the hard limit, Oracle Projects processes both events, which will lead to duplicate event amounts.

To avoid the creation of duplicate events, you can include logic in your billing extension to create an automatic event only if no unprocessed automatic events exist or if it will fit under the hard limit and be processed accordingly. Otherwise, the billing extension does not create the event, and you should delete the revenue without releasing it. If you do release the revenue, you need to calculate and insert the event manually.

In some transaction independent cases, you may wish to insert an amount that fits under the limit. In most transaction dependent cases, you should insert the entire amount, regardless of the limit to account for amounts based on processed transactions.



Suggestion: If you are creating positive and negative event amounts, create the negative amount first, so that it increases available funding.

Multiple Customers and Automatic Events

Oracle Projects processes automatic events as it does manual events. With multiple customer projects, events are split between the customers based on the customer billing percentage.

If you include hard limit logic in your procedure, you need to consider multiple customers and hard limit processing.

Creating Multiple Events in Same Calling Place in Same Run

It is possible for one or more billing extensions to create events in the same calling place in the same run. All billing extensions are executed in the calling place before any of the automatic events are included on the invoice or revenue. You need to consider the issues in the case in which one billing extension is dependent on the amount of other events processed in that calling place in the same run.

For example, assume you are processing a surcharge extension and a retention extension in the regular processing section of invoice generation. The surcharge is executed before the retention based on the processing order of the billing extension definition. The surcharge event is created but is not yet included on the invoice. The retention extension relies on the total invoice amount. To get the total invoice amount, the retention extension must account for the surcharge event which is not yet included on the invoice.

You must include logic in your billing extension to read any automatic event created for projects and tasks in the same run and calling place.

Tips on Writing and Debugging Procedures

You can make testing and debugging your billing extension procedure much easier by writing your procedure in a very methodical, structured approach as suggested below. Your functional and technical resources should work together to validate the billing extension.

Step 1 Create own billing extension to create event of a given amount

The first step is to create a very simple billing extension using the template files. You perform these steps to create an automatic event using a billing extension.

- Copy the template files to your own files
- Change the package and procedure names
- Add one call to the `insert_event` procedure to create an event of a given amount
- Store the procedure in the database
- Define a billing extension in Oracle Projects using this procedure
- Assign the billing extension to a *test* project
- Process the project through revenue and invoice generation; you should run the process that is appropriate for the billing extension
- Verify that an event is created for the given amount

Step 2 Test each SQL statement in SQL*Plus

After you verify that your billing extension works in an integrated flow, you can begin to build the logic of your billing extension. You first

write and test each SQL statement in SQL*Plus. You focus on each SQL statement independently until you have verified all of the SQL statements.

Be sure that the appropriate SQL statements handle both project level and top task level billing assignments.

If you are writing transaction dependent billing extensions, you should create the appropriate transactions on your test project and then process the transactions through revenue accrual or invoicing. Note the request ID of the process. All of the transactions are marked with this request ID, so you can use the request ID in testing your SQL statements in SQL*Plus. You can then use one of the following views to read the appropriate transactions processed by the request ID.

- PA_BILLING_REV_TRANSACTIONS_V
- PA_BILLING_INV_TRANSACTIONS_V

The views use PL/SQL functions, which are included in the view definition, to determine the appropriate project, task, calling place, and request ID variables for which the billing extension is being run. These variables are set by the revenue generation and invoice generation processes before the billing extension is executed. If you do not set these variables, then the view returns all records for that project and task in SQL*Plus. You can set these variables for your SQL*Plus session by running the papbglob.sql script which exists in the admin/sql directory. You can test your SQL statements using views with the variables that you want.

Step 3 Add SQL statements one at a time and test in an integrated flow

After you test and verify each SQL statement that you plan to use in your billing extension, you can add one SQL statement at a time to your billing extension definition. Each time after you add a new part of the logic to the billing extension, you should then test your billing extension in an integrated revenue or invoice flow through Oracle Projects to verify the logic that you just added. Continue this cycle for all of your SQL statements to be included in your billing extension procedure.

You may take another approach by adding all of your logic to the billing extension and then performing integrated testing. This method is harder to debug when you encounter problems.

Step 4 Do full integrated testing of billing extension

After your billing extension logic is complete, you need to perform full integrated testing to validate all of the business cases and conditions that your billing extension must handle. This is where you use the business cases and test plans that you created in the design stage of the your billing extension implementation.

You must ensure that your billing extension works when using both project level and task level funding, if your company uses both levels of funding.

If you have written a transaction dependent billing extension, you should test the processing flow for these adjustment actions to ensure that your billing extension properly processes transactions with these adjustment actions:

- Revenue recalculation with and without change in the amount
- Transfer to the same project, which results in the same amount
- Transfer to a different task, which results in a different amount
- Split transaction
- Transfer to a different project
- Billable to non-billable reclassification

Once you have verified all of the integrated test cases, you have completed your billing extension implementation.

Other Debugging Tips

- Make sure that the name seeded in `pa_billing_extensions.procedure_name` is exactly the same as the `package.procedure_name` if your procedure is stored in the database
- Make sure that the `package.procedure_name` does not exceed 30 characters
- Make sure that your procedure is compiled and stored in the database
- Make sure that there is not another invalid or outdated procedure executing instead of the procedure you intend to execute. Inactivate all other extensions at the appropriate level to ensure that only the extension you expect to execute is executing.

Defining Billing Extensions

You define billing extensions to automatically calculate and create revenue and invoice amounts.

When you define billing extensions, you specify detailed information that determines when the billing extensions are called, which processes call them, and what information is required upon entry of the billing extension.

Fremont Corporation defines one billing extension for communication surcharge. This billing extension calculates communication charge as a percent of the amount invoiced.

<i>Name</i>	Communication Charge
<i>Calling Process</i>	Invoice
<i><u>Default Event Values</u></i>	
<i>Type</i>	Surcharge
<i>Description</i>	Communication Charge

Checkboxes Checked:

- Adjustment Processing
- Regular Processing
- Percentage
- Project Specific

Default Budget Types

<i>Cost</i>	Approved Cost Budget
<i>Revenue</i>	Approved Revenue Budget

Some extensions are provided by Oracle Projects. These extensions are all marked with a checkmark in the Predefined flag check box. When this box is checked, it is not possible to change the contents of the following fields:

- Procedure
- Order
- Revenue Budget Type
- Calling Processes
- Required Inputs
- Other Parameters

- [Calling Place](#)

See Also

[Overview of Client Extensions: page 19 – 2](#)

Billing Cycle Extension

You can use a billing cycle client extension to derive the next billing date for a project. To use a client extension, you must write the logic in a PL/SQL procedure and then store the procedure in the database.

To use the billing cycle extension for any project, you must set the project's Billing Cycle Type to *User-Defined*.

If a billing cycle extension used in the Invoice Generation Process returns a NULL value for the next billing date, the project will not be picked up for Invoice Processing.

Writing the Billing Cycle Extension

Oracle Projects provides a template package that contains the procedure that you can modify to implement the billing cycle client extension. The name of the package is **pa_client_extn_bill_cycle**, and the name of the procedure is **get_next_billing_date**.

Print out and review the following files before you begin writing your billing cycle client extension. These files are located in the Oracle Projects admin/sql directory.

PAXIBCXS.pls	Billing Cycle Extension Package Specification Template. If you create procedures outside the predefined procedure within the PA_Client_Extn_Bill_Cycle package, you must also modify this file to include those new procedures.
PAXIB CXB.pls.	Billing Cycle Extension Package Body Template. This file contains the procedure that you modify to implement the billing cycle client extension. You can define as many procedures as you want within this package or within the predefined procedure.



Warning: Do not use the PL/SQL commands Commit and Rollback in your billing extension code. For the **get_next_billing_date** function, define the pragma RESTRICT_REFERENCES as WNDS, WNPS. For more information, refer to the *PL/SQL User's Guide and Reference Manual*.

Package.Function

pa_client_extn_bill_cycle.get_next_billing_date

Table 19 – 31 lists the parameters that Oracle Projects provides for the billing cycle client extension. The function returns a value for the next billing date.

Parameter	Usage	Type	Description
X_project_id	IN	NUMBER	The identifier of the project.
X_project_start_date	IN	DATE	The start date of the project.
X_billing_cycle_id	IN	NUMBER	The identifier of the billing cycle code.
X_bill_thru_date	IN	DATE	The bill-through date entered for the process.
X_last_bill_thru_date	IN	DATE	The last bill-through date of the project.

Table 19 – 31 (Page 1 of 1) Billing Cycle Extension Parameters

Automatic Invoice Approve/Release Extension

The Automatic Invoice Approve/Release Extension allows you to make automatic approval and release of invoices a part of the Generate Draft Invoice process.

Processing

Oracle Projects calls the Automatic Invoice Approve/Release Extension during invoice generation. During processing, if the extension returns an approval flag or release flag set to yes, then the process approves (and releases, if applicable) the invoice.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Invoice Approve/Release Extensions

You must determine to what extent the Automatic Invoice Approve/Release Extension will be used across your projects. We recommend that you consider these design issues:

- What are the conditions and circumstances that require your project invoices to be automatically approved?
- What are the conditions and circumstances that require your project invoices to be automatically approved and released?
- What types of projects need to have this feature implemented?

Writing Automatic Invoice Approve/Release Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your automatic invoice approve/release extension

procedures. The name of the template package is **pa_client_extn_inv_actions**. The names of the procedures are:

- **approve_invoice**
- **release_invoice**

Print out the following files before you begin writing automatic invoice approve/release extensions. The files are located in the Oracle Projects admin/sql directory.

PAXPIACS.pls Invoice Action Client Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_client_extn_inv_actions package, you must also modify this file to include those new procedures.

PAXPIACB.pls Invoice Action Client Extension Package Body Template. This file contains the procedure that you can modify to implement the automatic invoice approve/release extension.

Package Procedures

pa_client_extn_inv_actions.approve_invoice

Table 19 – 32 lists the parameters that Oracle Projects provides for the invoice approval extension.

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifier of the project to which the draft invoice number is attached.
p_draft_invoice_num	IN	NUMBER	The draft invoice number.
p_invoice_class	IN	VARCHAR2	The class of the invoice.
p_project_amount	IN	NUMBER	Amount of the invoice in the project currency.
p_project_currency_code	IN	VARCHAR2	The project currency code.

Table 19 – 32 (Page 1 of 2) Automatic Invoice Approve Extension Parameters

Parameter	Usage	Type	Description
p_inv_currency_code	IN	VARCHAR2	The invoice currency code.
p_invoice_amount	IN	NUMBER	Amount of the invoice in the invoice currency.
x_approve_flag	OUT	VARCHAR2	Invoice approval flag. Valid values: Y = Yes (approve invoice) any other value = do not approve
x_status	OUT	NUMBER	Status of the procedure: 0 = successful execution <0 = Oracle8 error >0 = application error

Table 19 – 32 (Page 2 of 2) Automatic Invoice Approve Extension Parameters

pa_client_extn_inv_actions.release_invoice

Table 19 – 33 lists the parameters that Oracle Projects provides for the invoice release extension.

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifier of the project to which the draft invoice number is attached.
p_draft_invoice_num	IN	NUMBER	The draft invoice number.
p_invoice_class	IN	VARCHAR2	The class of the invoice.
p_project_amount	IN	NUMBER	Amount of the invoice in the project currency.
p_project_currency_code	IN	VARCHAR2	The project currency code.

Table 19 – 33 (Page 1 of 2) Invoice Release Extension Parameters

Parameter	Usage	Type	Description
p_inv_currency_code	IN	VARCHAR2	The invoice currency code.
p_invoice_amount	IN	NUMBER	Amount of the invoice in the invoice currency.
x_release_flag	OUT	VARCHAR2	Invoice release flag. Valid values: Y = Yes (release invoice) any other value = do not release
x_ra_invoice_date	OUT	DATE	Receivable invoice date. Validation on this parameter is performed only when x_release_flag = Y.
x_ra_invoice_num	OUT	NUMBER	Receivable invoice number. If automatic invoice numbering is active, then this parameter is not required. Validation on this parameter is performed only when x_release_flag = Y.
x_status	OUT	NUMBER	Status of the procedure: 0 = successful execution <0 = Oracle8 error >0 = application error

Table 19 – 33 (Page 2 of 2) Invoice Release Extension Parameters

Additional Information About Parameters

Using Invoice Class

The valid values of x_invoice_class are:

INVOICE	regular invoice
CREDIT_MEMO	crediting invoice
WRITE_OFF	write-off invoice
CANCEL	canceling invoice

Using Status

Use the `x_status` parameter to handle error conditions for your procedure. This parameter indicates the processing status of your extension as follows:

<code>x_status = 0</code>	The extension executed successfully.
<code>x_status < 0</code>	An Oracle8 error occurred and the process did not complete. Oracle Projects writes an error message to the process log file.
<code>x_status > 0</code>	An application error occurred. Oracle Projects writes a rejection reason to the <code>PA_DISTRIBUTION_WARNINGS</code> table. The invoice is not approved or released.

AR Transaction Type Extension

The AR Transaction Type Extension enables you to determine the AR transaction type when you interface invoices to Oracle Receivables.

Processing

Oracle Projects calls the AR Transaction Type Extension during the Transfer Invoices to Oracle Receivables process.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Writing AR Transaction Type Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your AR transaction type extension procedures. The name of the template package is **pa_client_extn_inv_transfer**. The name of the procedure is **get_ar_trx_type**.

Print out the following files before you begin writing AR transaction type extensions. The files are located in the Oracle Projects admin/sql directory.

PAXPTRXB.pls	AR Transaction Type Extension Package Body Template. This file contains the procedure that you can modify to implement the AR transaction type extension.
PAXPTRXS.pls	AR Transaction Type Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_client_extn_inv_transfer package, you must also modify this file to include those new procedures.

Package Procedure

pa_client_extn_inv_transfer.get_ar_trx_type

Table 19 – 34 lists the parameters that Oracle Projects provides for the AR transaction type extension.

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifier of the project to which the draft invoice number is attached.
p_draft_invoice_num	IN	NUMBER	The draft invoice number.
p_invoice_class	IN	VARCHAR2	The class of the invoice.
p_project_amount	IN	NUMBER	Amount of the invoice in the project currency.
p_project_currency_code	IN	VARCHAR2	The project currency code.
p_inv_currency_code	IN	VARCHAR2	The invoice currency code.
p_invoice_amount	IN	NUMBER	Amount on the invoice in the invoice currency.
p_ar_trx_type_id	IN	NUMBER	Identifier of the AR Transaction Type to be used for the invoice. Oracle Projects uses its setup tables to determine the default AR transaction type and then passes it to the template.

Table 19 – 34 (Page 1 of 2) AR Transaction Type Parameters

Parameter	Usage	Type	Description
x_ar_trx_type_id	OUT	NUMBER	Identifier of the AR Transaction Type determined by the extension. After validation, Oracle Projects uses this transaction type to interface invoices to Oracle Receivables.
x_status	OUT	NUMBER	Status of the procedure: 0 = successful execution <0 = Oracle8 error >0 = application error

Table 19 – 34 (Page 2 of 2) AR Transaction Type Parameters

Additional Information About Parameters

Using Invoice Class

The valid values of x_invoice_class are:

INVOICE	regular invoice
CREDIT_MEMO	crediting invoice
WRITE_OFF	write-off invoice
CANCEL	canceling invoice

Using Status

Use the x_status parameter to handle error conditions for your procedure. This parameter indicates the processing status of your extension as follows:

x_status = 0	The extension executed successfully.
x_status < 0	An Oracle8 error occurred and the process did not complete. Oracle Projects writes an error message to the process log file.
x_status > 0	An application error occurred. Oracle Projects writes a rejection reason to the PA_DISTRIBUTION_WARNINGS table. The invoice is not approved or released.

Output Tax Extension

In the Tax Defaults implementation option, you set up a hierarchy for determining default tax codes for invoice lines. One of the sources the system can use to find default tax codes is the Output Tax client extension.

Oracle Projects calls the Output Tax extension during the Generate Draft Invoices process, if it has not yet found the output tax code using the Tax Defaults hierarchy. You can modify the extension to satisfy your business rules for assigning the default output tax code for invoice lines.

Description

The extension is identified by the following items:

Item	Name
Specification template	PAXPOTXS.pls
Body template	PAXPOTXB.pls
Package	pa_client_extn_output_tax
Procedures	get_tax_codes

Table 19 – 35 Output Tax extension

Get_Tax_Codes Procedure

The get_tax_codes procedure assigns a tax code to an invoice line. This procedure uses the following parameters:

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	The identifier of the project
p_customer_id	IN	NUMBER	The identifier of the customer
p_bill_to_site_use_id	IN	NUMBER	The bill-to site
p_ship_to_site_use_id	IN	NUMBER	The ship-to site
p_set_of_books_id	IN	NUMBER	The set of books associated with the project
p_expenditure_item_id	IN	NUMBER	Identifier of the expenditure item

Table 19 – 36 get_tax_codes parameters (Page 1 of 2)

Parameter	Usage	Type	Description
p_event_id	IN	NUMBER	The identifier of the event
p_line_type	IN	VARCHAR2	The type of invoice line (Event, Expenditure, or Retention)
p_request_id	IN	NUMBER	The request ID of the Generate Draft Invoices process
p_user_id	IN	NUMBER	The identifier of the user who ran the Generate Draft Invoices process
x_vat_tax_id	OUT	NUMBER	The output tax code

Table 19 – 36 get_tax_codes parameters (Page 2 of 2)

See Also

Setting Up Invoice Line Tax Codes: page 18 – 67

Tax Defaults: page 17 – 68

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Project Verification Extension

The Project verification extension contains procedures that enable you to define rules for the following purposes:

- To determine whether a project can change its project status
- To determine whether to call Workflow for a project status change

Processing

Oracle Projects calls the Project Verification Extension when a change of status is requested for a project.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Project Verification Extensions

You must determine what business rules you want to apply when a project status change is selected for a project. See also: Project Statuses: page 17 – 183

Writing Project Verification Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your project verification extension procedures. The name of the template package is **pa_client_extn_proj_status**.

Print out the following files before you begin writing project verification extensions. The files are located in the Oracle Projects admin/sql directory.

PAXPCECB.pls	Project Verification Extension Package Body Template. This file contains the procedures that you can modify to implement the extension.
PAXPCECS.pls	Project Verification Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_client_extn_proj_status package, you must also modify this file to include those new procedures.

Package Procedures

verify_project_status_change

Use this procedure to define requirements a project must satisfy to change from one project status to another. Detailed instructions for modifying the procedure are included in the package body.

Table 19 – 37 lists the parameters that Oracle Projects provides for the verify_project_status_change procedure.

Parameter	Usage	Type	Description
x_calling_module	IN	VARCHAR2	The module that called the extension.
x_project_id	IN	NUMBER	Identifier of the project.
x_old_proj_status_code	IN	VARCHAR2	The current project status code.
x_new_proj_status_code	IN	VARCHAR2	The new project status code.
x_project_type	IN	VARCHAR2	The project type of the project.
x_project_start_date	IN	DATE	The project start date.
x_project_end_date	IN	DATE	The project end date.
x_public_sector_flag	IN	VARCHAR2	Public sector indicator.
x_attribute_category	IN	VARCHAR2	Descriptive flexfield context.

Table 19 – 37 (Page 1 of 2) Verify Project Status Change Parameters

Parameter	Usage	Type	Description
x_attribute1 through x_attribute10	IN	VARCHAR2	Descriptive flexfield segments.
x_pm_product_code	IN	VARCHAR2	The project management product code.
x_err_code<	OUT	NUMBER	Error handling code.
x_warnings_only_flag	OUT	VARCHAR2	

Table 19 – 37 (Page 2 of 2) Verify Project Status Change Parameters

check_wf_enabled

When Oracle Projects determines whether to call Workflow for a project status change, it bases the decision on the settings in the project status record and the project type. You can use this procedure to override those settings and/or add additional requirements.

Table 19 – 38 lists the parameters that Oracle Projects provides for the check_wf_enabled procedure.

Parameter	Usage	Type	Description
x_project_status_code	IN	VARCHAR2	The current project status code.
x_project_type	IN	VARCHAR2	The project type of the project.
x_project_id	IN	NUMBER	Identifier of the project.
x_wf_enabled_flag	OUT	VARCHAR2	Flag indicating whether Workflow is enabled for the status change. Value is either Y or N.
x_err_code	OUT	NUMBER	Error handling code.

Table 19 – 38 (Page 1 of 1) Check Workflow Enabled Parameters

Project Workflow Extension

The project workflow extension enables you to customize the workflow processes for changing project statuses.

You must determine how you want to identify the approver for a project status change. See also: Project Statuses: page 17 – 183

Processing

The default project workflow process calls the project workflow extension to determine the project approver.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Writing Project Workflow Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your project workflow extension procedures. The name of the template package is **pa_client_extn_project_wf**.

Print out the following files before you begin writing project verification extensions. The files are located in the Oracle Projects admin/sql directory.

PAWFPCB.pls	Project Workflow Extension Package Body Template. This file contains the procedures that you can modify to implement the extension.
PAWFPCS.pls	Project Workflow Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_client_extn_project_wf package, you must also modify this file to include those new procedures.

Package Procedures

select_project_approver

This procedure returns the project approver ID to the calling workflow process. You can modify the procedure to add rules to determine who can approve a project. The default procedure returns the ID of the supervisor of the person who submitted the project status change.

Table 19 – 39 lists the parameters that Oracle Projects provides for the select_project_approver procedure.

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifier of the project.
p_workflow_ started_by_id	IN	NUMBER	Identifier of the person who submitted the project status change.
p_project_approver_ id	OUT	NUMBER	Identifier of the project approver.

Table 19 – 39 (Page 1 of 1) Select Project Approver Parameters

start_project_wf

This procedure starts the workflow process for project status changes.

Table 19 – 40 lists the parameters that Oracle Projects provides for the start_project_wf procedure.

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifier of the project.
p_item_type	IN	VARCHAR2	The workflow item type.
p_process	IN	VARCHAR2	Name of the workflow process.
p_out_item_key	OUT	VARCHAR2	The workflow item key.
p_err_stack	OUT	VARCHAR2	Error handling stack.

Table 19 – 40 (Page 1 of 2) Start Project Workflow Parameters

Parameter	Usage	Type	Description
p_err_stage	OUT	VARCHAR2	Error handling stage.
p_err_code	OUT	VARCHAR2	Error handling code.

Table 19 – 40 (Page 2 of 2) Start Project Workflow Parameters

Budget Verification Extension

The budget verification extension allows you to define rules for validating a budget before its status is changed.

You should determine your requirements for baselining budgets. For more information, see: Submitting a Draft: page 3 – 32 and Baselining a Draft: page 3 – 36.

See Also

Designing Client Extensions: page 19 – 5

Writing the Budget Verification Extension

Oracle Projects provides a template package that contains the procedures that you modify to control the rules for baselining a budget.

The name of the package is **PA_Client_Extn_Budget**. The name of the procedure is **verify_budget_rules**.

Print out and review the following files before you begin writing budget calculation extensions. These files are located in the Oracle Projects admin/sql directory.

PAXBCECB.pls	Budget Calculation Extension Package Body Template. This file contains the budget calculations procedures, and also the procedure that you modify to implement budget verification extensions. You can define as many procedures as you want within this package or within the predefined procedure.
PAXBCECS.pls	Budget Calculation Extension Package Specification Template. If you create procedures outside the predefined procedure within the PA_Client_Extn_Budget package, you must also modify this file to include those new procedures.

Package.Procedure

verify_budget_rules

You can use this procedure to build additional validations that Oracle Projects checks whenever a budget is submitted or baselined. The parameter `p_event` passes a value of either *SUBMIT* or *BASELINE*, to indicate the desired status of the budget being tested.

Table 19 – 41 lists the parameters that Oracle Projects provides for the verify budget rules procedure.

Parameter	Usage	Type	Description
p_draft_version_id	IN	NUMBER	The identifier of the draft version.
p_mark_as_original	IN	VARCHAR2	Identifies the Mark as Original request.
p_event	IN	VARCHAR2	Identifies the requested status of the budget. Value is either <i>SUBMIT</i> or <i>BASELINE</i> .
p_project_id	IN	NUMBER	The identifier of the project.
p_budget_type_code	IN	VARCHAR2	The budge type code.
p_resource_list_id	IN	NUMBER	The identifier of the resource list for the budget.
p_project_type_class_code	IN	VARCHAR2	The project type class code of the budget's project.
p_created_by	IN	NUMBER	The identifier of the person who created the budget.
p_calling_module	IN	VARCHAR2	The module that called the extension.
p_warnings_only_flag	OUT	VARCHAR2	Indicates the level of errors the procedure generated. <i>Y</i> indicates that only warnings were generated. <i>N</i> indicates that one or more errors were generated.

Table 19 – 41 (Page 1 of 2) Budget Verification Parameters

Parameter	Usage	Type	Description
p_err_msg_count	OUT	NUMBER	The number of warnings and errors that the procedure generated.
p_error_code	OUT	NUMBER	Error handling code.
p_err_stage	IN OUT	VARCHAR2	Error handling stage.
p_err_stack	IN OUT	VARCHAR2	Error handling stack.

Table 19 – 41 (Page 2 of 2) Budget Verification Parameters

Budget Workflow Extension

The budget workflow extension enables you to customize the workflow processes for changing the status of a budget.

Processing

Oracle Projects calls the budget workflow process to determine whether to call Oracle Workflow to baseline a budget, and which workflow process to call.

The default budget workflow process calls the budget workflow extension to determine the budget approver.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Designing Budget Workflow Extensions

You must determine what rules you want to apply when determining whether to call Oracle Workflow to baseline a budget, and when selecting the budget approver.

Writing Budget Workflow Extensions

Oracle Projects provides a template package and procedure that you use as the basis of your budget workflow extension procedures. The name of the template package is **pa_client_extn_budget_wf**.

Print out the following files before you begin writing budget verification extensions. The files are located in the Oracle Projects admin/sql directory.

PAWFBCEB.pls	Budget Workflow Extension Package Body Template. This file contains the procedures that you can modify to implement the extension.
PAWFBCEB.pls	Budget Workflow Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_client_extn_budget_wf package, you must also modify this file to include those new procedures.

Package Procedures

budget_wf_is_used

When Oracle Projects determines whether to call Oracle Workflow for a budget status change, it bases the decision on the settings in the budget type and the project type. You can use this procedure to override those settings and/or add additional requirements.

Table 19 – 42 lists the parameters that Oracle Projects provides for the budget_wf_is_used.

Parameter	Usage	Type	Description
p_draft_version_id	IN	NUMBER	The identifier of the version of the budget.
p_project_id	IN	NUMBER	Identifier of the project.
p_budget_type_code	IN	VARCHAR2	The budget type code.
p_pm_product_code	IN	VARCHAR2	The project management product code.
p_result	IN OUT	VARCHAR2	Result of the procedure. Value is either Y or N.
p_err_code	IN OUT	NUMBER	Error handling code.

Table 19 – 42 (Page 1 of 2) Budget Workflow Enabled Parameters

Parameter	Usage	Type	Description
p_err_stage	IN OUT	VARCHAR2	Error handling stage.
p_err_stack	IN OUT	VARCHAR2	Error handling stack.

Table 19 – 42 (Page 2 of 2) Budget Workflow Enabled Parameters

start_budget_wf

This procedure starts the workflow process for budget status changes. The procedure also contains the name of the workflow process that is called. The process indicated in the default procedure is PABUDWF.

Table 19 – 43 lists the parameters that Oracle Projects provides for the start_budget_wf procedure.

Parameter	Usage	Type	Description
p_draft_version_id	IN	NUMBER	The identifier of the version of the budget.
p_project_id	IN	NUMBER	Identifier of the project.
p_budget_type_code	IN	VARCHAR2	The budget type code.
p_mark_as_original	IN	VARCHAR2	Indicates whether the user has requested that the budget be marked as the original budget.
p_item_type	OUT	VARCHAR2	The workflow item type.
p_item_key	OUT	VARCHAR2	The workflow item key.
p_err_code	IN OUT	NUMBER	Error handling code.

Table 19 – 43 (Page 1 of 2) Start Budget Workflow Parameters

Parameter	Usage	Type	Description
p_err_stage	IN OUT	VARCHAR2	Error handling stage.
p_err_stack	IN OUT	VARCHAR2	Error handling stack.

Table 19 – 43 (Page 2 of 2) Start Budget Workflow Parameters

verify_budget_rules

You can use this procedure to specify budget verification rules that are applied only when Oracle Workflow is used for budget status changes. This procedure is called by the procedure **pa_budget_wf.baseline_budget**.

Table 19 – 44 lists the parameters that Oracle Projects provides for the `verify_budget_rules` procedure.

Parameter	Usage	Type	Description
p_item_type	IN	VARCHAR2	The workflow item type.
p_item_key	IN	VARCHAR2	The workflow item key.
p_project_id	IN	NUMBER	Identifier of the project.
p_budget_type_code	IN	VARCHAR2	The budget type code.
p_workflow_started_by_id	IN	NUMBER	Identifier of the person who submitted the project status change.
p_event	IN	VARCHAR2	Identifies the requested status of the budget. Value is either <i>SUBMIT</i> or <i>BASELINE</i> .

Table 19 – 44 (Page 1 of 2) Verify Budget Rules Parameters

Parameter	Usage	Type	Description
p_warnings_only_flag	OUT	VARCHAR2	Indicates the level of errors the procedure generated. Y indicates that only warnings were generated. N indicates that one or more errors were generated.
p_err_msg_count	OUT	NUMBER	Number of warnings and errors.

Table 19 – 44 (Page 2 of 2) Verify Budget Rules Parameters

select_budget_approver

This procedure is called by Oracle Workflow to determine the budget approver. You can use this procedure to add rules for determining who will approve a budget. The default procedure returns the ID of the supervisor of the person who requested the budget status change.

Table 19 – 45 lists the parameters that Oracle Projects provides for the select_budget_approver procedure.

Parameter	Usage	Type	Description
p_item_type	IN	VARCHAR2	The workflow item type.
p_item_key	IN	VARCHAR2	The workflow item key.
p_project_id	IN	NUMBER	Identifier of the project.
p_budget_type_code	IN	VARCHAR2	The budget type code.
p_workflow_started_by_id	IN	NUMBER	Identifier of the person who requested the budget status change.
p_budget_baseliners_id	OUT	NUMBER	Identifier of the person selected to approve the budget status change.

Table 19 – 45 (Page 1 of 1) Select Budget Approver Parameters

See Also

Budget Calculation Extensions: page 19 – 14

Verify Organization Change Extension

The Verify Organization Change Extension enables you to build business rules to determine whether an organization change is allowed for a Project / Task Owning Organization, and to define the error messages that are used when the rules are violated.

Processing

Oracle Projects calls the Verify Organization Change Extension during the Mass Update Batches process, and in the Projects window when the project or task owning organization is changed.

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Writing the Verify Organization Change Extension

Oracle Projects provides a template package and procedure that you use as the basis of your verify organization change extension procedures. The name of the template package is **pa_org_client_extn**. The name of the procedure is **verify_org_change**.

Print out the following files before you begin writing verify organization change extensions. The files are located in the Oracle Projects admin / sql directory.

PAXORCEB.pls	Verify Organization Change Extension Package Body Template. This file contains the procedure that you can modify to implement the extension.
PAXORCES.pls	Verify Organization Change Extension Package Specification Template. If you create procedures outside the predefined procedure within the pa_org_client_extn package, you must also modify this file to include those new procedures.

Package Procedure

pa_org_client_extn.verify_org_change

Table 19 – 46 lists the parameters that Oracle Projects provides for the verify organization change extension.

Parameter	Usage	Type	Description
X_insert_update_mode	IN	VARCHAR2	Value = <i>INSERT</i> if the project/task record has not been saved in the database. Value = <i>UPDATE</i> if the record exists in the database.
X_calling_module	IN	VARCHAR2	<i>PAXPREPR</i> if this extension is called from the Projects window. <i>PAXBAUPD</i> if this extension is called from the Process Mass Update Batches process.
X_project_id	IN	NUMBER	Identifier of the project to be updated.
X_task_id	IN	NUMBER	Identifier of the task to be updated. The value is NULL when the extension is called to verify a project organization change.
X_old_value	IN	NUMBER	Identifier of the current organization of the project or task.
X_new_value	IN	NUMBER	Identifier of the new organization to be assigned to the project or task.
X_project_type	IN	VARCHAR2	Identifier of the project type of the project.
X_project_start_date	IN	DATE	Start date of the project.
X_project_end_date	IN	DATE	End date of the project.
X_public_sector_flag	IN	VARCHAR2	Public sector flag on the project.

Table 19 – 46 (Page 1 of 2) Verify Organization Change Parameters

Parameter	Usage	Type	Description
X_task_manager_person_id	IN	NUMBER	Identifier of the manager of the task.
X_service_type	IN	VARCHAR2	Service type code of the task.
X_task_start_date	IN	DATE	Start date of the task.
X_task_end_date	IN	DATE	End date of the task.
X_entered_by_user_id	IN	NUMBER	Identifier of the user who entered the project/ task.
X_attribute_category	IN	VARCHAR2	Attribute category of the project or task.
X_attribute_1 through X_attribute_10	IN	VARCHAR2	Attribute values 1 through 10 of the project or task.
X_pm_product_code	IN	VARCHAR2	Project management product code specified for the project or task.
X_pm_project_reference	IN	VARCHAR2	Project management product reference specified for the project.
X_pm_task_reference	IN	VARCHAR2	Project management task reference specified for the task.
X_functional_security_flag	IN	VARCHAR2	Value = Y if the user's responsibility has the function Project: Org Update: Override Standard Checks. Otherwise, value = N.
X_outcome	OUT	VARCHAR2	The message error code if a verification rule is violated or if there is an Oracle8 error.

Table 19 – 46 (Page 2 of 2) Verify Organization Change Parameters

See Also

Function Security in Oracle Projects: page C – 2

Allocation Extensions

You can use the allocation extensions to expand the capabilities of the allocations feature.

Each allocation extension includes examples that you can copy and modify.

The allocations extensions include:

- Allocation Source Extension: page 19 – 129
- Allocation Target Extension: page 19 – 131
- Allocation Offset Tasks Extension: page 19 – 133
- Allocation Offset Projects and Tasks Extension: page 19 – 135
- Allocation Basis Extension: page 19 – 137
- Allocation Descriptive Flexfields Extension: page 19 – 138
- Allocation Dependencies Extension: page 19 – 140

See Also

Allocations: page 6 – 2

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Allocation Source Extension

This extension defines source projects and tasks. Oracle Projects calls this procedure when Use Client Extension Sources is selected in the Source window.

Use the Allocation Source extension when you want to include or exclude projects or tasks temporarily when creating a source pool. You may also find that it is more convenient to maintain a large list of source projects in the extension file rather than in the Sources window.

Description

For each allocation rule_id, the client populates the global session variable x_source_proj_tasks_tbl of the data type table alloc_source_tabtype. The allocation run process reads this table and uses the projects and tasks as the sources for any allocation run that uses the rule. The projects and tasks are added to those projects and tasks specified in the source lines.

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	source_extn

Table 19 – 47 Allocation Source Extension

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	Identifies the allocation rule
x_source_proj_task_tbl	OUT	alloc_source_tabtype	Number the index sequentially from 1. Otherwise the process will fail. See: Table 19 – 49
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 48 Allocation Source Extension Parameters (Page 1 of 1)

Additional Parameter Information

The datatype **alloc_source_tabtype** contains the following parameters:

Parameter	Type	Description
project_id	Number	(Required) Identifies the source project. The source project and the allocation rule must be from the same operating unit.
task_id	Number	Identifies the source task (must be a top or lowest task)
exclude_flag	Varchar2(1)	(Default is N) If Y, exclude the project and task from the source project and tasks

Table 19 – 49 Additional Parameters: Allocation Source Extension (Page 1 of 1)

Validation

The Generate Allocation Transactions process:

- Validates project_id against the single organization view pa_projects
- Verifies that the project is open (that is, pa_project_stus_utils.is_project_closed(project_id) = 'N' and template_flag != 'Y')
- Validates task_id against view pa_alloc_src_tasks_v
- Verifies that the task belongs to the source project

If the validation fails, the Generate Allocation Transactions process populates the message "The client extension returned an invalid project or task."

Allocation Target Extension

This extension defines target projects and tasks. Oracle Projects calls this extension when Use Client Extension Targets is selected in the Targets window.

Use the Allocation Targets extension when you want to include or exclude projects or tasks temporarily when allocating amounts to target projects and tasks. You may also find that it is more convenient to maintain a large list of target projects in the extension file rather than in the Targets window.

Description

For each allocation rule_id, the client populates the global session variable x_target_proj_task_tbl of the data type table alloc_target_tabtype. The allocation run process reads the table and uses the specified project and chargeable tasks as the target for the allocation run. The system can use both the projects and tasks specified in the extension as well as those specified on the Targets window.

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	target_extn

Table 19 – 50 Allocation Target Extension (Page 1 of 1)

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	Identifies the allocation rule
x_target_proj_task_tbl	OUT	alloc_target_tabtype	Number the index sequentially from 1. Otherwise the process will fail. See: Table 19 – 52
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 51 Allocation Target Extension Parameters (Page 1 of 1)

Additional Parameter Information

The datatype **alloc_target_tabtype** contains the following parameters:

Parameter	Type	Description
project_id	Number	(Required) Identifies the target project. If cross-charging is enabled, target projects and source projects can be in different operating units.
task_id	Number	Identifies the target task (task must be chargeable)
percent	Number	The percentage of the pool amount allocated to this target. Express the value in numbers between 0 and 100 (for example, 45% is 45, not .45). NVL (percent,0). See Note on the Percent Parameter: page 19 – 133.
exclude_flag	Varchar2(1)	(Default is N) If Y, exclude the project and task from the target project and tasks

Table 19 – 52 Additional Parameters: Allocation Target Extension (Page 1 of 1)

Note on the Percent Parameter

If you want to use target percentages in a rule, specify the percentages either in the Targets window or within the extension, but not both. The Generate Allocation Transactions process ignores any target percentages in the rule if all of the following are true:

- The basis method for the allocation rule is *Target % and Spread Evenly* or *Target % and Prorate*
- The Targets window for the rule includes target lines.
- The client extension returns target percentages.

Validation

The Generate Allocation Transactions process:

- Validates project_id against view pa_alloc_target_proj_v
- Validates task_id against view pa_alloc_tgt_tasks_v
- Verifies that the task belongs to the target project

If the validation fails, the Generate Allocation Transactions process populates the message "The client extension returned an invalid project or task."

Allocation Offset Tasks Extension

This extension defines offset tasks. Oracle Projects calls this extension when Use Client Extension for Task is selected in the Offsets window.

Use the Allocation Offset Tasks extension when you want to offset some source tasks but not others.

Description

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	offset_task_extn

Table 19 – 53 Allocation Offset Tasks Extension (Page 1 of 1)

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	(Required) Identifies the allocation rule
p_offset_project_id	IN	Number	(Required) Identifies the offset project
x_offset_task_id	OUT	Number	(Required) Identifies the offset task
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 54 Allocation Offset Tasks Extension Parameters (Page 1 of 1)

Validation

The Generate Allocation Transactions process:

- Validates task_id against pa_alloc_tgt_tasks_v

- Verifies that the returned tasks belong to the offset project that was provided as the input parameter

If the validation fails, the Generate Allocation Transactions process populates the message "The client extension returned an invalid project or task."

Allocation Offset Projects and Tasks Extension

This extension defines offset projects and tasks. Oracle Projects calls this extension when Use Client Extension for Project and Task is selected in the Offsets window.

Use this extension to specify more or different projects and tasks than are defined in the Sources window.

Description

For each allocation rule_id, the client populates the global session variable x_offset_proj_task_tbl of data type table alloc_offset_tabtype. The allocation run process reads the table to get the offset project, task, and offset amount for the allocation run. The sum of offset amounts assigned to each offset project and task equals the total offset amount (p_offset_amount).

The extension includes the following items:

Item	Name
Body Template	PAPALCCB.pls
Specification Template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	offset_extn

Table 19 – 55 Allocation Offset Projects and Tasks Extension

Parameters

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	(Required) Identifies the allocation rule
p_offset_amount	IN	Number	(Required) The pool amount to be offset
x_offset_proj_task_tbl	OUT	alloc_offset_tabtype	Number the index sequentially from 1. Otherwise the process will fail. See: Table 19 – 57
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 56 Allocation Offset Projects and Tasks Extension Parameters (Page 1 of 1)

Additional Parameter Information

The datatype **alloc_offset_tabtype** contains the following parameters:

Parameter	Type	Description
project_id	Number	(Required) Identifies the offset project. The offset project and the allocation rule must be from the same operating unit. The offset project must allow new transactions.
task_id	Number	(Required) Identifies the offset task (must be chargeable)
offset_amount	Number	(Required) The amount allocated to this project and task (Nvl(offset_amount,0))

Table 19 – 57 Additional Parameters: Allocation Offset Projects and Tasks Extension (Page 1 of 1)

Validation

The Generate Allocation Transactions process:

- Validates the project_id against the single organization view pa_projects

- Verifies that the project allows new transactions (that is, `pa_project_utils.check_prj_stus_action_allowed (project_status_code,'NEW_TXNS')='Y'` and `template_flag !='Y'`)
- Validates `task_id` against `pa_alloc_tgt_tasks_v`
- Verifies that the task belongs to the offset project
- Validates the sum of the offset amount from client extension against `p_offset_amount`

If the validation fails, the Generate Allocation Transactions process populates one of these messages:

- "The client extension returned an invalid project or task."
- "The sum of offset amounts returned from the offset client extension does not equal the total offset amount passed to the client extension."

Allocation Basis Extension

Oracle Projects calls this extension when Use Client Extension Basis is selected in the Allocation Rule window. During the allocation run, the system calls the procedure to get the basis amount for each target project and task.

Use the Basis extension when you want to use amounts other than target costs to calculate the basis rate for target projects and tasks. For example, you may want to base the calculation on the number of people in a department, or the amount of floor space.

Description

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	basis_extn

Table 19 – 58 Allocation Basis Extension (Page 1 of 1)

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	(Required) Identifies the allocation rule
p_project_id	IN	Number	(Required) Identifies the offset project
p_task_id	IN	Number	(Required) Identifies the offset task
x_basis_amount	OUT	Number	(Required) The percentage of the pool amount allocated to this offset. NVL(x_basis_amount,0). Individual amounts can be negative or 0, but the sum of the basis amounts cannot equal zero.
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 59 Allocation Basis Extension Parameters (Page 1 of 1)

Validation

The Generate Allocation Transactions process validates the sum of basis amount returned from the client extension.

If the validation fails, the Generate Allocation Transactions process populates the message "The total basis amount cannot be 0. No allocation can be performed."

Allocation Descriptive Flexfields Extension

Use the Allocation Descriptive Flexfields extension to define descriptive flexfields to be used when defining allocation rules. The descriptive flexfields you define are used in creating allocation and offset transactions.

Description

Oracle Projects calls this extension before creating each transaction. If the extension provides descriptive flexfield values, the system uses the values when creating the transactions.

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	txn_dff_extn

Table 19 – 60 Allocation Descriptive Flexfields Extension (Page 1 of 1)

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_rule_id	IN	Number	Identifies the allocation rule
p_run_id	IN	Number	The allocation run ID
p_txn_type	IN	VARCHAR2(1)	T=Target transaction O=Offset transaction
p_project_id	IN	Number	Identifies the offset project
p_task_id	IN	Number	Identifies the offset task
p_expnd_org	IN	VARCHAR2(30)	The expenditure organization associated with the transaction
p_expnd_type_class	IN	Number	The expenditure type class associated with the transaction
p_expnd_type	IN	VARCHAR2(30)	The expenditure type
x_attribute_category	OUT	VARCHAR2(30)	Descriptive flexfield context field
x_attribute1–10	OUT	VARCHAR2(150)	Descriptive flexfield segments

Table 19 – 61 Descriptive Flexfields Extension Parameters (Page 1 of 2)

Parameter	Usage	Type	Description
x_error_message	OUT	VARCHAR2(30)	Error message text
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error

Table 19 – 61 Descriptive Flexfields Extension Parameters (Page 2 of 2)

Allocation Dependencies Extension

Use the Allocation Dependencies extension to verify compliance with the business rules of your choice. For example, you could verify that certain projects or tasks are never included in a source pool, or that the previous allocation run used a particular rule.

Description

Oracle Projects calls this extension before processing any allocation rule. If the status code is zero (that is, if the dependencies specified in the extension are met) then the process creates an allocation run. If the status code is other than zero, the system prints the message provided by the x_message parameter.

The extension includes the following items:

Item	Name
Body template	PAPALCCB.pls
Specification template	PAPALCCS.pls
Package	pa_client_extn_alloc
Procedure	check_dependency

Table 19 – 62 Allocation Dependencies Extension (Page 1 of 1)

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_alloc_rule_id	IN	Number	(Required) Identifies the allocation rule
x_status	OUT	Number	(Required) Indicates if an error occurred: =0 Successful validation <0 Oracle error; message is written to a log file >0 Application error
x_error_message	OUT	VARCHAR2(30)	Error message text

Table 19 – 63 Allocation Dependencies Extension Parameters (Page 1 of 1)

AutoApprovalExtension

The AutoApproval Extension contains procedures to define conditions under which expense reports are approved automatically.

The procedure includes examples that you can copy and modify. The extension includes the following items:

Item	Name
Body template	PAXPTEEB.pls
Specification template	PAXPTEES.pls
Package	pa_client_extn_pte
Procedure	get_exp_autoapproval

Table 19 – 64 AutoApproval Extension

AutoApproval Procedure

The procedure **get_exp_autoapproval** contains default logic to read the values of the AutoApproval profile options.

The procedure uses the following parameters:

Parameter	Usage	Type	Description
X_source	IN	VARCHAR2	Identifies the source of the expenditure
X_exp_class_code	IN	VARCHAR2	Identifies the expenditure class (OT for timecards and OE for expense reports)
X_txn_id	IN	NUMBER	System-generated identifier of the expenditure (passed in by the form). For expenditures created in Oracle Projects, this is the expenditure ID.
X_exp_ending_date	IN	DATE	Ending date of the expenditure week
X_approved	IN / OUT	VARCHAR2	Value of the AutoApproval profile option

Table 19 – 65 AutoApproval Procedure Parameters (Page 1 of 1)

See Also

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Asset Assignment Extension

If the Generate Asset Lines process is unable to assign an asset to a task, the system marks the line as UNASSIGNED in the Asset Name column of the report.

Oracle Projects calls the Asset Assignment extension:

- For all unassigned assets. You can modify the extension to designate the assets for specific tasks (asset lines) and thus avoid the UNASSIGNED designation, or you can assign an asset to the line manually.
- If the Override Asset Assignment check box is selected on the Project Types window (Capitalization tab). You can modify the extension to override the asset assigned to specified tasks.

The asset you designate must:

- Be placed in service before the date identified by the In Service Through date in the Generate Asset Lines process
- Belong to the same project as the identified task

The extension includes an example that you can copy and modify.

Description

The extension includes the following items:

Item	Name
Body template	PAPGALCB.pls
Specification template	PAPGALCS.pls
Package	pa_client_extn_gen_asset_lines
Procedure	client_asset_assignment

Table 19 – 66 Asset Assignment Extension

Parameters

The extension uses the following parameters:

Parameter	Usage	Type	Description
p_project_id	IN	NUMBER	Identifies the project
p_task_id	IN	NUMBER	Identifies the task
p_expnd_id	IN	NUMBER	Identifies the expenditure
p_expnd_item_id	IN	NUMBER	Identifies the expenditure item
p_expnd_type	IN	VARCHAR2	Expenditure type
p_expnd_category	IN	VARCHAR2	Expenditure category
p_expnd_type_class	IN	VARCHAR2	Expenditure type class
p_non_labor_org_id	IN	NUMBER	Identifies the organization for non-labor tasks
p_non_labor_resource	IN	VARCHAR2	Identifies the organization for non-labor resources
p_invoice_id	IN	NUMBER	Identifies the invoice
p_inv_dist_line_number	IN	NUMBER	Identifies the invoice distribution line
p_vendor_id	IN	VARCHAR2	Identifies the supplier
p_employee_id	IN	VARCHAR2	Identifies the employee
p_attribute1-10	IN	VARCHAR2	Descriptive flexfield segments
p_attribute_category	IN	VARCHAR2	Descriptive flexfield category
p_in_service_thorough_date	IN	DATE	Date through which the asset is in service
x_asset_id	IN OUT	NUMBER	Identifies the asset

Table 19 – 67 Asset Assignments Extension Parameters (Page 1 of 1)

Validation

You can validate the asset identifier (asset_id) in the client extension body to avoid exceptions during the PRC: Generate Asset Lines process.

If you do not do the validation in the client extension body, the system validates the asset identifier after the extension returns it. The

Generate Asset Lines exception report lists the lines that fail validation.

See Also

Generate Asset Lines: page 11 – 27

Designing Client Extensions: page 19 – 5

PL/SQL User's Guide and Reference Manual

Oracle Projects Technical Reference Manual

Cost Plus Application Programming Interface (API)

Oracle Projects provides a procedure you can use to call the Cost Plus Application Programming Interface. This procedure retrieves an amount based on your burden cost setup. You can specify the burden schedule, effective date, expenditure type, and organization to retrieve the burden cost amount based on the criteria you specify.

For example, you can use this procedure to derive the raw cost amount of a related transaction using a specific burden schedule of rates and the project organization as inputs.

Any amounts calculated using the API will not show up in cost plus detail views that display the burden cost breakdown. Also, if you update rates for the burden schedule, you must manually mark all items that are affected by the rate changes.

Stored Procedure

pa_cost_plus.get_burden_amount

Parameter	Usage	Type	Description
burden_schedule_id	IN	NUMBER	The schedule id of the burden schedule used to calculate the burden amount.
effective_date	IN	DATE	The date used to find the burden schedule revision to calculate the burden amount.
expenditure_type	IN	VARCHAR2	The type of expenditure item used to find a cost base.
organization_id	IN	NUMBER	The id of the organization used to find a multiplier.
raw_amount	IN	NUMBER	The raw amount for which the burden amount is calculated.
burden_amount	IN OUT	NUMBER	The calculated burden amount.
burden_sch_rev_id	IN OUT	NUMBER	The schedule revision id of the burden schedule used to calculate the burden amount.

Table 19 – 68 (Page 1 of 2)

Parameter	Usage	Type	Description
compiled_set_id	IN OUT	NUMBER	The id of the active compiled set used to calculate the burden amount.
status	IN OUT	NUMBER	The processing status of the procedure.
stage	IN OUT	NUMBER	The exit stage of the procedure.

Table 19 – 68 (Page 2 of 2)

Error Handling

Use the status and stage parameters to help resolve error conditions should your procedure fail.

The status parameter indicates the processing status of your procedure as follows:

status = 0 The procedure executed successfully.

status < 0 An Oracle8 error occurred and the process did not complete.



Suggestion: Ensure that you are returning the status of the cost plus procedure to the procedure that you are calling the cost plus API from to help resolve error conditions.

status > 0 See stage parameter.

The stage parameter shows you where in the processing of the cost plus API the procedure failed. Use the stage parameter to resolve the specific problem that caused your procedure to fail.

Stage	Meaning
100	Cannot find a revision for the given burden schedule and effective date
200	Cannot find the burden structure
300	Expenditure type is not in a cost base in the burden structure

Table 19 – 69 (Page 1 of 2)

Stage	Meaning
400	There is no active compiled set for the given burden schedule and organization
500	There is no compiled multiplier for the given qualification

Table 19 – 69 (Page 2 of 2)

See Also

Labor Transaction Extensions: page 19 – 34

Example of Using Cost Plus API

This section provides you with an example of how to use the API to calculate the burden amount according to a specific business requirement.

Business Requirement: Determine the burden amount based on the following criteria.

Burden Schedule: CP burden schedule (burden schedule id: 60)

Effective Date: 03-MAR-94

Expenditure Type: Professional

Organization: Data Systems (Organization id: 18)

Raw Amount: 1,000

You would use the following PL/SQL procedure to obtain the burden amount for this business requirement using the cost plus API.

```
pa_cost_plus.get_burden_amount(60,
                                '03-MAR-94',
                                'Professional',
                                18,
                                1000,
                                burden_amount,
```

```
        burden_sch_rev_id,  
        compiled_set_id,  
        status,  
        stage);  
if (status = 0) then  
    -- use the calculated burden_amount to implement your  
    -- business requirement  
end if;
```

Cross-Charge Client Extensions

You can implement your business rules for various aspects of cross charge feature by using the following client extensions:

Provider and Receiver Organizations Override Extension: page 19 – 152

Cross Charge Processing Method Override Extension: page 19 – 154

Transfer Price Determination Extension: page 19 – 157

Transfer Price Override Extension: page 19 – 160

Transfer Price Currency Conversion Override Extension: page 19 – 163

Cost Accrual Identification Extension: page 19 – 165

Provider and Receiver Organizations Override Extension

You can use this client extension to enforce cross-charge rules at a higher level in the organization hierarchy than the level at which you assign resources and projects. Doing so provides a single place for you to enforce and maintain your business rules in all organizations in your enterprise.

The system identifies cross-charged transactions based on the provider and receiver organizations for the transaction. It derives default values for these organizations as follows:

- Provider organization: The expenditure organization or non-labor resource organization for usage transactions
- Receiver organization: The organization that owns the task to which the transaction is charged

To override the cross-charge identification, code this extension to use a higher level in the organization hierarchy to derive the appropriate provider and receiver organizations and then determine if a transaction is to be a cross-charged transaction.

When you run the cost distribution processes or use the Expenditure Items window to adjust cross-charged transactions, the system first identifies the default provider and receiver organizations for the transaction and then calls the extension.

Description

The extension includes the following items:

Item	Name
Body template	PACCIXTB.pls
Specification template	PAACCIXTS.pls
Package	PA_CC_IDENT_CLIENT_EXTN
Procedure	override_prvdr_recvr

Table 19 – 70 Provider and Receiver Organizations Override Extension

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_prvdr_organization_id	NUMBER	IN	Provider organization identifier (the expenditure organization is the default value)
p_prvdr_org_id	NUMBER	IN	Provider operating unit identifier
p_recvr_organization_id	NUMBER	IN	Receiver organization identifier (the project organization is the default value).
p_recvr_org_id	NUMBER	IN	Receiver operating unit identifier
p_expenditure_item_id	NUMBER	IN	Expenditure item identifier
p_system_linkage_function	NUMBER	IN	Expenditure type class of the Transaction
x_prvdr_organization_id	NUMBER	OUT	Return provider organization. Returns the input value by default
x_recvr_organization_id	NUMBER	OUT	Return receiver organization. Returns the input value by default
x_error_message	VARCHAR2	OUT	Error message text
X_Status	NUMBER	OUT	Status indicating whether an error occurred. Valid values are: =0 Success <0 Oracle Error >0 Application Error

Table 19 – 71 Parameters for Provider and Receiver Organizations Override Extension

Validation

The system verifies the returned values to ensure that they are valid organizations within the business group.

Cross-Charge Processing Method Override Extension

You may have some custom business rules that help you identify how you want to process cross-charged transactions. You can use this extension to:

- Exclude certain cross-charged transactions from cross-charge processing
- Change the cross-charge method (for example, from Intercompany Billing to Borrowed and Lent accounting)

When you run a cost distribution process or use the Expenditure Items window to adjust cross-charged transactions, the system does the following:

1. Identifies the transaction as a cross-charged transaction
2. Determines the cross-charge processing method (based on how you set up the cross-charge options)
3. Calls the extension so you can override the cross-charge processing method

Description

The extension includes the following items:

Item	Name
Body template	PACCIXTB.pls
Specification template	PACCIXTS.pls
Package	PA_CC_IDENT_CLIENT_EXTN
Procedure	override_cc_processing_method

Table 19 – 72 Cross-Charge Processing Method Override Extension

Prerequisites

The transaction must be a cross-charged transaction.

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_prvdr_organization_id	NUMBER	IN	Provider organization identifier
p_recvr_organization_id	NUMBER	IN	Receiver organization identifier
p_prvdr_org_id	NUMBER	IN	Provider operating unit identifier
p_recvr_org_id	NUMBER	IN	Receiver operating unit identifier
p_prvdr_le_id	NUMBER	IN	Provider legal entity identifier
p_recvr_le_id	NUMBER	IN	Receiver legal entity identifier
p_project_id	NUMBER	IN	Project identifier
p_task_id	NUMBER	IN	Task identifier
p_person_id	NUMBER	IN	Identifier for employee incurring the transaction
p_system_linkage_function	VARCHAR2	IN	Expenditure type class
p_expenditure_item_date	DATE	IN	Expenditure item date
p_transaction_source	VARCHAR2	IN	External source of the transaction, if any
p_expenditure_item_id	NUMBER	IN	Identifier of the transaction
p_cross_charge_type	VARCHAR2(2)	IN	Cross Charge Type determined for the transactions. Values are from the lookup CC_CROSS_CHARGE_TYPE
p_cross_charge_code	VARCHAR2(1)	IN	Input value for Cross Charge Identification from the lookup CC_CROSS_CHARGE_CODE
x_cross_charge_code	VARCHAR2(1)	OUT	Return value for Cross Charge Identification, which must be from the lookup CC_CROSS_CHARGE_CODE. The default logic returns the input value.
x_error_message	VARCHAR2	OUT	Error message text
X_Status	NUMBER	OUT	Status indicating whether an error occurred. Valid values are: =0 Success <0 Oracle Error >0 Application Error

Table 19 – 73 Parameters for Cross-Charge Processing Method Override Extension

Validation

The system validates the value returned for the cross-charge code to ensure that it meets the following rules:

If the cross-charge type is...	The following processing methods are allowed:
Intra-Operating Unit (that is, within a single operating unit)	Borrowed and Lent None (no processing)
Inter-Operating Unit (that is, across operating units within a single legal entity)	Intercompany Billing Borrowed and Lent None (no processing)
Intercompany (that is, across legal entities)	Intercompany Billing None (no processing)

Table 19 – 74 Cross-Charge Types

Transfer Price Determination Extension

Although your transfer price setup determines the transfer price used for cross-charged transactions, you may want to enforce different business rules occasionally.

The extension **determine_transfer_price** specifies a transfer price for the transaction being processed. If this extension returns a valid value for the transfer price, Oracle Projects uses that value as the transfer price instead of computing the transfer price. The Distribute Borrowed and Lent Amounts and the Generate Intercompany Invoice processes call this extension, before calling the standard transfer price determination routine.

For another type of transfer price extension, see: Transfer Price Override Extension: page 19 – 160.

Description

This extension includes the following items:

Item	Name
Body template	PAPTPRCB.pls
Specification template	PAPTPRCS.pls
Package	PA_CC_TP_CLIENT_EXTN
Procedure	determine_transfer_price

Table 19 – 75 Transfer Price Determination Extension

Prerequisites

- Complete all the setup steps described in Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38
- Run the cost distribution processes for new transactions or use the Expenditure Items window to perform cross-charge adjustments on existing transactions. Both processes identify cross-charge transactions.
- Run the processes PRC: Distribute Borrowed and Lent Amounts or PRC: Generate Intercompany Invoices to process transactions that are identified as cross charged and that require borrowed and lent or intercompany processing.

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_prvdr_org_id	NUMBER	IN	Provider operating unit identifier
p_project_id	NUMBER	IN	Project identifier
p_task_id	NUMBER	IN	Task identifier
p_recvr_org_id	NUMBER	IN	Operating unit identifier for the receiver project
p_prvdr_organization_id	NUMBER	IN	Unique identifier of the provider organization
p_recvr_organization_id	NUMBER	IN	Receiver organization identifier
p_expenditure_item_id	NUMBER	IN	Expenditure item identifier
p_expnd_organization_id	NUMBER	IN	Expenditure organization identifier
p_expenditure_type_class	VARCHAR2	IN	The type class of the expenditure
p_expenditure_type	VARCHAR2	IN	Expenditure type
p_incurred_by_person_id	NUMBER	IN	Identifier of the person who incurred the expenditure
p_quantity	NUMBER	IN	Number of units of work performed
x_denom_transfer_price	NUMBER	OUT	Transfer price amount in transaction currency
x_denom_curr_code	VARCHAR2	OUT	Transaction currency in which transfer price is calculated
x_bill_rate	NUMBER	OUT	Bill rate applied to calculate the transfer price.
x_bill_markup_percentage	NUMBER	OUT	Percentage used in deriving the transfer price if the transfer price was based on a markup.
x_error_message	VARCHAR2	OUT	Error message text
X_Status	NUMBER	OUT	Status indicating whether an error occurred. Valid values are: =0 Success <0 Oracle Error >0 Application Error

Table 19 – 76 Parameters for Transfer Price Determination Extension

Validation

The system validates that you have provided a value for only one of the following output audit parameters:

- x_bill_rate
- x_bill_markup_percentage

Transfer Price Override Extension

Although your transfer price setup determines the transfer price used for cross-charged transactions, you may want to enforce different business rules occasionally. To do so, you can use the Transfer Price Override extension for a given transaction.

The extension (procedure) **override_transfer_price** overrides the transfer price for a transaction. After the Distribute Borrowed and Lent Amounts Process and Generate Intercompany Invoice Process compute the transfer price (as determined by the user setup in the Transfer Price Rules and Transfer Price Schedules windows), the processes call this extension.

For another type of transfer price extension, see: Transfer Price Determination Extension: page 19 – 157

Description

This extension includes the following items:

Item	Name
Body template	PAPTPRCB.pls
Specification template	PAPTPRCS.pls
Package	PA_CC_TP_CLIENT_EXTN
Procedure	override_transfer_price

Table 19 – 77 Transfer Price Override Extension

Prerequisites

- Complete all the setup steps described in Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38
- Run the cost distribution processes for new transactions or use the Expenditure Items window to perform cross-charge adjustments on existing transactions. Both processes identify cross-charge transactions.
- Run the processes PRC: Distribute Borrowed and Lent Amounts or PRC: Generate Intercompany Invoices to process transactions that are identified as cross charged and that require borrowed and lent or intercompany processing.

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_prvdr_org_id	NUMBER	IN	Provider operating unit identifier
p_recvr_org_id	NUMBER	IN	Receiver organization unit identifier
p_prvdr_organization_id	NUMBER	IN	Provider organization identifier
p_recvr_organization_id	NUMBER	IN	Receiver organization identifier
p_project_id	NUMBER	IN	Project identifier
p_task_id	NUMBER	IN	Task identifier
p_expenditure_item_id	NUMBER	IN	Expenditure item identifier
p_expnd_organization_id	NUMBER	IN	Expenditure organization identifier
p_expenditure_type_class	VARCHAR2	IN	The type class of the expenditure
p_expenditure_type	VARCHAR2	IN	Expenditure type
p_incurred_by_person_id	NUMBER	IN	Identifier of the person who incurred the expenditure
p_quantity	NUMBER	IN	Number of units of work performed
p_base_curr_code	VARCHAR2	IN	Transaction currency code of the base amount
p_base_amount	NUMBER	IN	Base amount used to derive the transfer price. It could be either a raw cost, burdened cost, or raw revenue in the transaction currencies.
p_denom_tp_curr_code	VARCHAR2	IN	Transaction currency code in which transfer price is calculated
p_denom_transfer_price	NUMBER	IN	Transfer price amount as calculated in the transaction currency
x_denom_transfer_price	NUMBER	OUT	Transfer price as calculated in the transaction currency
x_denom_curr_code	VARCHAR2	OUT	Transaction currency in which the transfer price is calculated
x_bill_rate	NUMBER	OUT	Bill rate applied to calculate the transfer price.
x_bill_markup_percentage	NUMBER	OUT	Percentage used to derive the transfer price if the transfer price was based on a markup.

Table 19 – 78 Parameters for Transfer Price Override Extension

Parameter	Type	Usage	Description
x_error_message	VARCHAR2	OUT	Error message text
X_Status	NUMBER	OUT	Status indicating whether an error occurred. Valid values are: =0 Success <0 Oracle Error >0 Application Error

Table 19 – 78 Parameters for Transfer Price Override Extension

Validation

The system validates that you have provided a value for only one of the following output audit parameters:

- x_bill_rate
- x_bill_markup_percentage

Transfer Price Currency Conversion Override Extension

Use this extension when you occasionally want to override the default attributes used to convert the transfer price from the transaction currency to the functional currency. The Distribute Borrowed and Lent Amounts and the Generate Intercompany Invoice Processes call the extension after the processes compute the transfer price. (The user setup in the Cross Charge tab in the Implementation Options window determines the default attributes used for the conversion.)

Description

The extension includes the following items:

Item	Name
Body template	PAPOCACB.pls
Specification template	PAPOCACS.pls
Package	PA_MULTI_CURR_CLIENT_EXTN
Procedure	override_currency_conv_attributes

Table 19 – 79 Transfer Price Currency Conversion Override Extension

Prerequisites

- Complete all the setup steps described in Implementation Steps for Cross Charge and Intercompany Billing: page 12 – 38
- Run the cost distribution processes for new transactions or use the Expenditure Items window to perform cross-charge adjustments on existing transactions. Both processes identify cross-charge transactions.
- Run the processes PRC: Distribute Borrowed and Lent Amounts or PRC: Generate Intercompany Invoices to process transactions that are identified as cross charged and that require borrowed and lent or intercompany processing.

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_project_id	NUMBER	IN	Project identifier
p_task_id	NUMBER	IN	Task identifier
p_transaction_class	VARCHAR2	IN	The hard coded value "Transfer Price"
p_expenditure_item_id	NUMBER	IN	Expenditure item identifier
p_expenditure_type_class	VARCHAR2	IN	The type class of the expenditure.
p_expenditure_type	VARCHAR2	IN	Expenditure type
p_expenditure_category	VARCHAR2	IN	Expenditure category
p_from_currency_code	VARCHAR2	IN	Currency to convert from
p_to_currency_code	VARCHAR2	IN	Currency to convert to
p_conversion_type	VARCHAR2	IN	Default exchange rate type to be used for conversion
p_conversion_date	DATE	IN	Default exchange Rate date to be used for conversion
x_rate_type	VARCHAR2	OUT	Override exchange rate type
X_rate_date	DATE	OUT	Override exchange rate date
X_exchange_rate	NUMBER	OUT	Override exchange rate to be used for rate type of "USER" only.
x_error_message	VARCHAR2	OUT	Error message text
X_Status	NUMBER	OUT	Status indicating whether an error occurred. Valid values are: =0 Success <0 Oracle Error >0 Application Error

Table 19 – 80 Parameters for Transfer Price Override Extension

Validation

Oracle Projects validates that the values returned by the client extension meet all conversion requirements.

Cost Accrual Identification Extension

Use this extension to identify cross charged projects that use cost accrual during revenue generation. See: Revenue-Based Cost Accrual: page 8 – 80 and Generate Draft Revenue: page 11 – 33.

Description

The extension includes the following items:

Item	Name
Body template	PAICPCAB.pls
Specification template	PAICPCAS.pls
Package	PA_CC_CA
Procedure	identify_ca_projects

Table 19 – 81 Cost Accrual Identification Extension

Parameters

The extension uses the following parameters:

Parameter	Type	Usage	Description
p_project_id	NUMBER	IN	Project identifier
x_cost_accrual_flag	VARCHAR2	OUT	Flag identifying cost accrual projects. Value is Y or N.

Table 19 – 82 Parameters for Cost Accrual Identification Extension

APPENDIX

A

Menu Paths

This appendix describes the default navigation paths for each window on the Oracle Projects menu.

Oracle Projects Navigation Paths

This appendix lists the default navigation paths for most of the windows in Oracle Projects. The responsibility that you use determines which of these windows you can use and how you access them. Your implementation team and system administrator set up navigation menus and task flows for your responsibility, and may create customized versions of some of these windows (with different window titles or navigation paths).

Folders

Windows that have folders (as shown by a folder icon in the window’s upper left corner) are marked with an asterisk (*) in the table below. Your system administrator manages which users or responsibilities can access or own various folders. See: Customizing the Presentation of Data in a Folder *Oracle Applications System Administrator’s Guide*.

Default Navigator Paths

Window	Default Path
Accounting Calendar. See: <i>Oracle General Ledger User’s Guide</i>	Setup > Financials > Calendar > Periods
Agreement 8 – 10	Billing > Agreements
Agreement Template 8 – 19	Setup > Billing > Agreement Templates
Agreement Types 17 – 135	Setup > Billing > Agreement Types
Allocation Rule 6 – 5	Allocations > Allocation Rules
AR Payment Terms 17 – 134	Setup > Billing > Payment Terms
Assign AutoAccounting Rules 17 – 254	Setup > AutoAccounting > Assign Rules
Assign Security Rules. See <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Descriptive > Security > Assign Setup > Flexfields > Key > Security > Assign Setup > Flexfields > Validation > Security > Assign
AutoAccounting Lookup Sets 17 – 251	Setup > AutoAccounting > Lookup Sets
AutoAccounting Rules 17 – 248	Setup > AutoAccounting > Rules
AutoAllocation Workbench 6 – 28	Allocations > AutoAllocations > Workbench

Default Navigator Paths (Page 1 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Basis 6 – 15	Allocations > Allocation Rules. Find or enter a rule and a prorated basis method, and then choose Basis.
Basis Details* 6 – 23	Allocations > Review Allocations Runs. Enter criteria in the Find Allocation Runs window, choose Find, and then choose Basis Details.
Bill Rate Schedules 17 – 137	Setup > Billing > Bill Rate Schedules
Billing Extensions 19 – 67	Setup > Billing Extensions
Budget Change Reason Lookups 17 – 173	Setup > Budgets > Change Reasons
Budget Entry Methods 17 – 169	Setup > Budgets > Entry Methods
Budget Types 17 – 168	Setup > Budgets > Budget Types
Budgets 3 – 2	Budgets
Burden Cost Codes 17 – 112	Setup > Costing > Burden > Cost Codes
Burden Schedules 17 – 117	Setup > Costing > Burden > Schedules
Burden Structures 17 – 113	Setup > Costing > Burden > Structures
Capital Projects 7 – 2	Capital Projects. Enter criteria in the Find Capital Projects window and then choose Find.
Class Categories and Codes 17 – 186	Setup > Projects > Classifications
Compensation Rules 17 – 104	Setup > Costing > Labor > Compensation Rules
Completed Requests. See: <i>Oracle Applications User's Guide</i>	Other > Requests > View
Contact Type Lookups	See: Project Contact Type Lookups
Control Actions 14 – 4	Setup > Activity Management Gateway > Control Actions
Control Billing by Top Task 8 – 16	Billing > Control Billing by Top Task
Copy Rule 6 – 17	Allocations > Allocations Rules. Find or enter a rule and then choose Copy To.
Cost Bases 17 – 110	Setup > Costing > Burden > Bases
Cost Base Type Lookups 17 – 110	Setup > Costing > Burden > Bases. Choose Cost Base Type.
Cost Distribution Lines 4 – 47	Expenditures > Expenditure Inquiry > Project. Find the project. Choose Item Details. Choose Cost Distribution Lines.
Credit Type Lookups 17 – 160	Setup > Billing > Credit Types

Default Navigator Paths (Page 2 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Cross Validation Rules. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Rules
Customers 17 – 54	Setup > Customers > Customer Entry
Customer Project Relationship Lookups	See: Project Customer Relationship Lookups
Define Security Rules. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Descriptive > Security > Define Setup > Flexfields > Key > Security > Define Setup > Flexfields > Validation > Security > Define
Define Flexfield Segments. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Descriptive > Segments
Define Flexfield Values. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Descriptive > Values
Draft Exceptions 6 – 23	Allocations > Review Allocations Runs. Select a run with the status Draft Failure, and then choose Exceptions.
Employee Cost Rates 17 – 106	Setup > Costing > Labor > Employee Cost Rates
Enter Person 17 – 51	Setup > Human Resources > Employees
Event Entry and Inquiry Windows* 8 – 23	Billing > Events
Event Types 17 – 162	Setup > Billing > Event Types
Expenditure Batches 4 – 12	Expenditures > Pre-Approved Batches > Enter
Expenditure Batches Summary 4 – 22	Expenditures > Pre-Approved Batches > Review. Find the batch you want to see and choose Find.
Expenditure Categories 17 – 82	Setup > Expenditures > Expenditure Categories
Expenditure Inquiry* 4 – 47	Expenditures > Expenditure Inquiry Project
Expenditure Items* 4 – 47	Expenditures > Expenditure Inquiry> All
Expenditure Types 17 – 87	Setup > Expenditures > Expenditure Types
Find Allocation Runs 6 – 22	Allocations > Review Allocations Runs
Find Capital Projects 7 – 2	Capital Projects
Find Expenditure Batches 4 – 9	Expenditures > Pre-Approved Batches > Review
Find Expenditure Items* 4 – 47	Expenditures > Expenditure Inquiry> All
Find Invoices 10 – 29	Billing > Invoice Review
Find Project Expenditure Items* 4 – 47	Expenditures > Expenditure Inquiry> Projects

Default Navigator Paths (Page 3 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Find Projects 2 – 18	Projects or Setup > Projects > Project Templates
Find Revenue 8 – 41	Billing > Revenue Review
Flexfield Security Rules. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Validation > Security > Define
Flexfield Value Sets. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Validation > Sets
Flexfield Values. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Validation > Values
GL Accounts. See: <i>Oracle General Ledger User's Guide</i>	Setup > Financials > Accounts
Implementation Options 17 – 57	Setup > System > Implementation Options
Invoice Formats 17 – 148	Setup > Billing > Invoice Formats
Invoice Summary* 8 – 58	Billing > Invoice Review. Enter criteria in the Find Invoices window, then choose Find.
Job 17 – 47	Setup > Human Resources > Jobs
Key Flexfield Security Rules. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Security > Define
Key Flexfield Segments See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Segments
Labor Cost Multipliers 17 – 107	Setup > Costing > Labor > Cost Multipliers
Location 17 – 36	Setup > Human Resources > Locations
Maintain PA Period Statuses 17 – 69	Setup > System > PA Periods
Mass Update Batches 2 – 58	Project Maintenance > Mass Update Batches
Missing Amounts* 6 – 23	Allocations > Review Allocations Runs. Enter criteria in the Find Allocation Runs window, choose Find, and then choose Missing Amounts.
Non-Labor Resources 17 – 91	Setup > Expenditures > Non-Labor Resources
Offset 6 – 14	Allocations > Allocations Rules. Find or enter a rule and then choose Offset.
Organization 17 – 35	Setup > Human Resources > Organizations > Define

Default Navigator Paths (Page 4 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Organization Hierarchies 17 – 40	Setup > Human Resources > Organizations > Hierarchies
Organization Overrides 2 – 41	Projects. In Find Projects, enter criteria and then choose Open. Select Organization Overrides from the Options.
Output Tax Code Defaults 17 – 68	Setup > System > Implementation Options. Choose the Tax Defaults tab.
PA Periods 17 – 69	Setup > System > PA Periods
Payment Terms 17 – 134	Setup > Billing > Payment Terms
Percent Complete 2 – 65	Project Status > Percent Complete
Period Types. See: <i>Oracle General Ledger User's Guide</i>	Setup > Financials > Calendar > Types
Personal Profile Values. See: <i>Oracle Applications User's Guide</i>	Other > Profile
Pre-Approved Expenditure Batch Review 4 – 22	Expenditures > Pre-Approved Batches > Review
Pre-Approved Expenditure Entry 4 – 12	Expenditures > Pre-Approved Batches > Enter
Project Contact Type Lookups 17 – 194	Setup > Project > Customers > Contact Types
Project Customer Relationship Lookups 17 – 193	Setup > Projects > Customers > Relationships
Project Customers 2 – 37	Navigate to Projects Templates Summary, select Customers and Contacts, and then choose Detail.
Project Expenditure Items* 4 – 47	Expenditures > Expenditure Inquiry> Project
Project Funding Inquiry 8 – 14	Billing > Funding Inquiry
Project Cross Charge Setup 12 – 59	Projects. Select the Cross Charge option from the Project Options.
Project Role Types 17 – 191	Setup > Projects > Role Types
Project Status Inquiry* 9 – 2	Project Status > Project Status Inquiry
Project Status Inquiry Columns 17 – 213	Setup > Project Status Columns
Project Statuses 17 – 183	Setup > Projects > Statuses
Project Types 17 – 196	Setup > Projects > Project Types
Projects, Templates 2 – 18	Projects. In Find Projects window, enter criteria and choose Find. In the Projects, Templates Summary window, select a project and choose Open.

Default Navigator Paths (Page 5 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Projects, Templates Summary* 2 – 18	Projects. In Find Projects window, enter criteria and choose Find. or Setup > Projects > Project Templates. Choose New.
Provider and Receiver Controls 12 – 55	Setup > Provider/Receiver Controls
Request Set. <i>Oracle Applications System Administration User's Guide</i>	Other > Requests > Set
Resources 6 – 11	Allocations > Allocations Rules. Find or enter a rule and then choose Sources. In the Sources window, choose Resources.
Resource Lists 17 – 174	Setup > Budgets > Resource Lists
Revenue Category Lookups 17 – 83	Setup > Expenditures > Revenue Categories
Revenue Distribution Lines 4 – 47	Expenditures > Expenditure Inquiry > Project. Find the project, choose Item Details, and then choose Revenue Distribution Lines.
Revenue Summary 8 – 41	Billing > Revenue Review. Enter criteria and choose Find.
Reverse an Allocation Run 6 – 24	In the Review Allocation Runs window, select a rule with a run status of Release Success and then choose Reverse.
Review Allocations Runs* 6 – 22	Allocations > Review Allocations Runs. Enter criteria in the Find Allocation Runs window and then choose Find.
Review Transactions* 14 – 58	Expenditures > Transaction Import > Review Transactions
Role Types 17 – 191	Setup > Projects > Role Types
Rollup Groups. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Groups
Segment Values. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Values or Setup > Flexfields > Descriptive > Values or Setup > Flexfields > Validation > Values
Service Type Lookups 17 – 189	Setup > Projects > Service Types
Set of Books. See: <i>Oracle General Ledger User's Guide</i>	Setup > Financials > Books
Shorthand Aliases. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Key > Aliases

Default Navigator Paths (Page 6 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
Sources* 6 – 9	Allocations > Allocations Rules. Find or enter a rule and then choose Sources.
Source Details* 6 – 23	Allocations > Review Allocations Runs. Enter criteria in the Find Allocation Runs window, choose Find, select a run, and then choose Source Details.
Source Products 14 – 5	Setup > Activity Management Gateway > Source Products
Submit Requests. See: <i>Oracle Applications System Administration User's Guide</i>	Other > Requests > Run
System Options 18 – 56	Setup > Customers > System Options
Targets* 6 – 12	Allocations > Allocations Rules. Find or enter a rule and then choose Targets.
Task Cross Charge Setup 12 – 59	Projects. Select the Cross Charge option from the Task Options.
Task Detail 1 – 16	Navigate to Projects, Templates. For Option Name, select Tasks and then choose Detail. In Find Tasks, enter criteria and choose Find. In Tasks, select a task and choose Options. In Task Options, double-click Task Detail.
Tax Code Defaults. See: Output Tax Code Defaults	
Transaction Controls 2 – 42	Projects. Find a project and then choose Open. Select Transaction Controls from Project Options or Select Tasks, choose a task, choose Options, and then choose Transaction Controls from Task Options.
Transactions* 6 – 23	Allocations > Review Allocations Runs. Enter criteria in the Find Allocation Runs window, choose Find, select a run, and then choose Transactions.
Transaction Sources 17 – 95	Setup > Expenditures > Transaction Sources
Transfer Price Rules 12 – 48	Setup > Transfer Price > Transfer Price Rules
Transfer Price Schedules 12 – 50	Setup > Transfer Price > Transfer Price Schedules
Unit Lookups 17 – 85	Setup > Expenditures > Units
Value Sets. See: <i>Oracle Applications Flexfields Guide</i>	Setup > Flexfields > Validation Sets
View AutoAllocation Statuses 6 – 34	Allocations > AutoAllocations > View Status
View Burdened Costs 17 – 125	Setup > Costing > Burden > View

Default Navigator Paths (Page 7 of 8) *Folder-enabled windows. See: Folders: page A – 2.

Window	Default Path
View Expenditure Accounting 4 – 49	Expenditures > Expenditure Inquiry> All or Project. Find an expenditure item and then choose View Accounting Lines from the Tools menu.
View Revenue Accounting 8 – 43	Billing > Revenue Review. Find a revenue item and then choose View Accounting Lines from the Tools menu.

Default Navigator Paths (Page 8 of 8) *Folder-enabled windows. See: Folders: page A – 2.

B

Profile Options

This appendix describes profile options that affect the operation of your Oracle Projects application.

Profile Options in Oracle Projects

Profile options specify how Oracle Projects controls access to and processes data.

This section describes each profile option, including the levels of responsibility for setting or updating its value.

Profile Options Summary

The table below indicates whether you (the "User") can view or update the profile option and at which System Administrator levels the profile options can be updated: Site, Application, Responsibility, and User. Use the Personal Profile Options window to view or set your profile options at the user level. You can consult your *Oracle Applications System Administrator's Guide* for a list of profile options common to all Oracle Applications.

A "Required" profile option requires a value. An "Optional" profile option provides a value already, so you need to provide a value only if you want to change the value.

Profile Option	User Resp.	System Administrator Responsibility				Requirements	
	User	User	Resp	App	Site	Required?	Default Value
PA: Allow Override of PA Distributions in AP / PO	0	✓	✓	✓	✓	Optional	Yes
PA: Allow Project Time and Expense Entry	0	✓	✓	✓	✓	Optional	No
PA: Licensed to Use AMG (Activity Management Gateway)	0	—	—	—	✓	Optional	No
PA: AutoApprove Expense Reports	0	—	—	✓	—	Optional	No
PA: AutoApprove Timesheets	0	0	0	✓	0	Optional	No
PA: Collection Pack Licensed	0	—	—	—	✓	Optional	No
PA: Cost Distribution Lines Per Set	0	0	0	✓	0	Optional	No default
PA: Cross–Project Responsibility	0	0	✓	0	0	Optional	No

- You can view the profile option but you cannot change it
- ✓ You can update the profile option
- 0 You cannot view or change the profile option value

Profile Option	User Resp.	System Administrator Responsibility				Requirements	
	User	User	Resp	App	Site	Required?	Default Value
PA: Debug Log Directory	0	0	0	✓	✓	Required for Allocations	No
PA: Debug Mode	0	✓	✓	✓	0	Optional	No
PA: Default Burden Schedule Type	0	0	0	0	✓	Optional	Firm
PA: Default Expenditure Organization in AP/PO	✓	✓	✓	✓	✓	Optional	No default
PA: Default Public Sector	0	0	0	0	✓	Optional	No
PA: Display Find Tasks	✓	✓	✓	✓	✓	Optional	No
PA: Enable Long List of Resource LOVs	✓	✓	✓	✓	✓	Optional	No
PA: Expenditure Items Per Set	0	0	0	✓	0	Optional	No default
PA: Expenditures Per Set	0	0	0	✓	0	Optional	No default
PA: Expense Report Invoices Per Set	0	✓	✓	✓	✓	Optional	No default
PA: Interface Unreleased Revenue to GL	–	0	✓	✓	0	Optional	Yes
PA: Licensed to Use Project Billing	–	–	–	–	✓	Required for Project Billing	No
PA: Log Summarization Statistics	✓	✓	✓	✓	✓	Optional	No
PA: Projects Per Set	0	0	0	✓	0	Optional	No default
PA: Receivables Invoice Line UOM	0	–	–	–	✓	Required for Project Billing	No default
PA: Rule-Based Optimizer						Optional	No
PA: Selective Flexfield Segment for AutoAccounting	0	0	0	✓	0	Required	No default
PA: Streamline Process Sleep Interval	0	0	0	✓	0	Optional	60 seconds
PA: Summarize Expense Report Lines	0	0	0	✓	0	Optional	No
PA: Tab to Budget Matrix Comments Fields	✓	✓	✓	✓	✓	Optional	No

– You can view the profile option but you cannot change it

✓ You can update the profile option

0 You cannot view or change the profile option value

Profile Option	User Resp.	System Administrator Responsibility				Requirements	
	User	User	Resp	App	Site	Required?	Default Value
PA: Tasks to Display for Expenditure Entry	✓	✓	✓	✓	✓	Optional	All Tasks
PA: Transfer DFF with AP	—	—	—	—	✓	Optional	No
Account Generator: Purge Runtime Data	✓	✓	✓	✓	✓	Optional	Yes
Tax: Allow Ad Hoc Tax Changes	—	✓	✓	✓	✓	Optional	No default
Tax: Allow Override of Customer Exemptions	—	✓	✓	✓	✓	Optional	No default
Tax: Allow Override of Tax Code	—	✓	✓	✓	✓	Optional	No default
AR: Transaction Flexfield QuickPick Attribute	✓	✓	✓	✓	✓	Required for Project Billing	interface_header_attribute1
AR: Use Invoice Accounting For Credit Memos	✓	✓	✓	✓	✓	Required for Project Billing	Yes
GL: Set of Books Name	0	0	✓	✓	✓	Required	No default
MO: Operating Unit	✓	0	✓	0	✓	Optional	No default

- You can view the profile option but you cannot change it
- ✓ You can update the profile option
- 0 You cannot view or change the profile option value

PA: Allow Override of PA Distributions in AP/PO

Indicates whether a user is allowed to update the Accounting Flexfield combination that is generated by FlexBuilder for Oracle Projects distributions in Payables and Purchasing. Available values are as follows:

- Yes** User is allowed to update and override the generated Account.
- No** User is not allowed to update and override the generated Account.
- (No value)** Equivalent to Yes

This profile option is visible to the System Administrator and updatable at the site, application, responsibility, and user levels.

The internal name for this profile option is
PA_ALLOW_FLEXBUILDER_OVERRIDES.

PA: Allow Project Time and Expense Entry

Indicates whether a specified employee can enter project-related expenses (that is, expenses associated with a project and task) in the Enter Receipts window of Oracle Web Employees.

This profile option integrates with the project user procedure. See: Expenditure Access, Project User, and AutoApproval Extension: page 19 – 142.

Internal name PA_TIME_EXP_PROJ_USER

View and update privileges The System Administrator can view and update this profile option at all levels.

Values

Yes	The user can enter project-related expenses in Oracle Web Employees.
No	(Default) Employees can enter only those expenses that are not associated with a project and task.
(No value)	Equivalent to No

PA: AutoApprove Expense Reports

Indicates whether to automatically approve expense reports submitted from Self-Service Expenses. If the option is set to Yes, Oracle Projects calls a routing extension when you import expense reports that originate in Self-Service Expenses.

Yes	Oracle Projects automatically imports the expense report into Oracle Projects as an approved expenditure. You do not need to route or review your expense reports.
No	Default value is No; expense reports require review and approval.
(No value)	Equivalent to No

The system administrator can view and update this profile option at the application level.

The internal name for this profile option is
PA_PTE_AUTOAPPROVE_ER.

PA: AutoApprove Timesheets

Indicates whether to automatically approve timesheets submitted from Self-Service Time. If the option is set to Yes, Oracle Projects calls a routing extension when you import timesheets that originate in Self-Service Time.

Yes Oracle Projects automatically imports the timesheet into Oracle Projects as an approved expenditure. You do not need to route or review your timesheets.

No Default value is No; timesheets require review and approval

(No value) Equivalent to No

The system administrator can view and update this profile option at the application level.

The internal name for this profile option is PA_PTE_AUTOAPPROVE_TS.

PA: Collection Pack Licensed

Indicates whether you have purchased and are a licensed user of Oracle Project Analysis Collection Pack.

Available values are listed below:

Yes Oracle Project Analysis Collection Pack has been purchased and licensed. Entitles the user to features and support. You must enable this profile option to use any features of Oracle Project Analysis Collection Pack.

No Default value is No, meaning that user does not have access to Oracle Project Analysis Collection Pack features or support.

(No value) Equivalent to No

This profile option is visible to the System Administrator and updatable at the site level.

The internal name for this profile option is PA_ADW_LICENSED.

PA: Cost Distribution Lines Per Set

Indicates the number of cost distribution lines to process in each set. This profile affects the following processes:

- PRC: Interface Labor Costs to General Ledger
- PRC: Interface Total Burdened Costs to General Ledger
- PRC: Interface Usage Costs to General Ledger
- PRC: Tieback Expense Reports from Payables

A logical unit of work is performed on a set of cost distribution lines before the work is committed. For example, the PRC: Interface Labor Costs to General Ledger process performs the following tasks on a set of cost distribution lines before committing the set to the database:

- Processes the set through AutoAccounting
- Interfaces the set to Oracle General Ledger

You can choose any numeric value to set this profile option, as long as it does not cause your system to exceed memory and database rollback segment sizes, and it is large enough to avoid unnecessary database accesses.

If you do not set this profile value, most of the processes use a default of 2000 cost distribution lines per set, but this value is operating system dependent.

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is PA_NUM_CDL_PER_SET.

PA: Cross–Project Responsibility

Indicates if a responsibility allows Cross–Project access. Available values are as follows:

Yes	A holder of this responsibility can view and update any project
No	A holder of this responsibility can view and update only those projects for which the holder is assigned as a key member
(No value)	Equivalent to No

Oracle Projects predefines a value of *Yes* for this profile for the Project Billing Super User and Project Costing Super User responsibilities upon installation.

This profile option is visible to the System Administrator and updatable at the responsibility level.

The internal name for this profile option is PA_SUPER_PROJECT.

PA: Debug Log Directory

The PA Step Down Allocations workflow (paauto.wft) uses this profile option. For more information, see: AutoAllocations: page 6 – 28 and see: Setting Up Workflow for AutoAllocations: page 6 – 36.

When Oracle Projects carries out the PA Step Down Allocations workflow, Oracle Workflow writes debugging information to a directory. Use this profile option to specify the directory. The default directory is /sqlcom/log.



Attention: The `utl_file_dir` parameter in the `init.ora` file must be set to the same directory that is specified in the profile option. If the two do not match, the PA Step Down Allocation workflow will fail (return an exception).

PA: Debug Mode

Indicates if Oracle Projects reports and processes are run in debug mode. The debug mode enables a tracing feature and causes additional messages to be printed to the log file. Available values are listed below:

Yes	System is operating in debug mode
No	System is operating in normal mode
(No value)	Equivalent to No

Oracle Projects predefines a value of *No* for this profile upon installation.

This profile option is available at any level.

This profile option is visible to the user and System Administrator and updatable at the application, responsibility, and user levels.

The internal name for this profile option is `PA_DEBUG_MODE`.

PA: Default Burden Schedule Type

Indicates the default burden schedule type when entering a standard burden schedule using the Burden Schedules form. Valid values are listed below:

Firm	Firm schedule type
Provisional	Provisional schedule type

Oracle Projects predefines a value of *Firm* for this profile upon installation.

This profile option is visible to the System Administrator and updatable at the site level.

The internal name for this profile option is
PA_IND_RATE_SCHEDULE_TYPE.

PA: Default Expenditure Organization in AP/PO

Indicates the default expenditure organization for project-related information in Payables and Purchasing.

You can select any organization that has a classification of HR Organization.

This profile option is visible to the user and System Administrator and updatable at the site, application, responsibility, and user levels.

The internal name for this profile option is PA_DEFAULT_EXP_ORG.

PA: Default Public Sector

Indicates if a project is public sector when a user enters a project using the Projects form. Available values are listed below:

Yes By default, any new project is public sector

No By default, any new project is not public sector

(No value) Equivalent to No

Oracle Projects predefines a value of *No* for this profile upon installation.

This profile option is visible to the System Administrator and updatable at the site level.

The internal name for this profile option is
PA_DEFAULT_PUBLIC_SECTOR.

PA: Display Find Tasks

Indicates whether to display the Find Tasks window when a user chooses Tasks in the Projects, Templates window. Available values are listed below:

Yes Tasks displays the Find Tasks window, and Oracle Projects automatically queries the top tasks (WBS Level = 1)

No Tasks does not display the Find Tasks window

(No value) Equivalent to No

This profile option is visible to the user and System Administrator and is updatable at the site, application, responsibility, and user levels.

The internal name for this profile option is PA_DISPLAY_FIND_TASKS.

PA: Enable Long List of Resource LOVs

Indicates whether you can enter reduction criteria when you query the Resource Name field in the Budget Lines window. Available values are listed below:

Yes	Users can enter reduction criteria when they query the Resource Name field in the Budget Lines window.
No	All the resource names are displayed when users query the Resource Name field in the Budget Lines window.
(No value)	Equivalent to No

Users can see and update this profile option. The System Administrator can view and update the profile option at all levels.

The internal name for this profile option is PA_RL_LONG_LIST.

PA: Expenditure Items Per Set

Indicates the number of expenditure items to process in each set. This profile option affects the following processes:

- PRC: Distribute Labor Costs
- PRC: Distribute Usage Costs
- PRC: Distribute Expense Report Costs
- PRC: Distribute Supplier Invoice Adjustments
- PRC: Distribute Total Burdened Costs
- PRC: Generate Draft Revenue
- PRC: Compute Forecast Labor Revenue

A logical unit of work is performed on a set of expenditure items before the work is committed. For example, the PRC: Distribute Labor Costs process performs the following tasks on a set of expenditure items before committing the set to the database:

- Cost distributes the set
- Processes the set through AutoAccounting
- Creates cost distribution lines

You can choose any numeric value to set this profile option, as long as it does not cause your system to exceed memory and database rollback segment sizes, and it is large enough to avoid unnecessary database accesses.

If you do not set this profile value, most of the processes use a default of 1000 expenditure items, but this value is operating system dependent.

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is
PA_NUM_EXP_ITEMS_PER_SET.

PA: Expenditures Per Set

Indicates the number of expenditures to process in each set. This profile option affects the following processes:

- PRC: Interface Expense Reports to Payables
- PRC: Interface Supplier Invoice Adjustment Costs to Payables

A logical unit of work is performed on a set of expenditures before the work is committed. For example, the PRC: Interface Expense Reports process performs the following tasks on a set of expenditures before committing the set to the database:

- Selects expenditures and expenditure items
- Determines the liability account for each expenditure (for expense reports)
- Interfaces to Payables

You can choose any numeric value to set this profile option, as long as it does not cause your system to exceed memory and database rollback segment sizes, and it is large enough to avoid unnecessary database accesses.

If you do not set this profile value, most of the processes use a default of 500 expenditures, but this value is operating system dependent.

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is
PA_NUM_EXPENDITURES_PER_SET.

PA: Expense Report Invoices Per Set

Indicates the number of expense report invoices (entered in Oracle Web Employees or Payables) to process in each set. This profile option affects the process PRC: Interface Expense Reports from Payables.

The set of expenditures is processed before the work is committed. For example, the PRC: Interface Expense Reports from Payables process does the following before committing the set to the database:

- Selects the invoices and invoice distribution lines
- Interfaces from Payables

Internal name: PA_NUM_WEB_EXP_PER_SET

View and update privileges: The System Administrator can view and update this profile option at all levels.

Values: You can use any numeric value to set the profile option, as long as the value does not cause your system to exceed memory and database rollback segment sizes, and is large enough to avoid unnecessary database access. If you do not set a value, most processes use a default of 500, but the actual default value depends on the operating system.

PA: Interface Unreleased Revenue to GL

Indicates whether unreleased draft revenue is interfaced to General Ledger by the PRC: Interface Revenue to General Ledger process.

Available values are listed below:

Yes	The Interface Revenue to General Ledger process interfaces unreleased draft revenue to General Ledger. This is the default value.
No	The Interface Revenue to General Ledger process does not interface unreleased draft revenue to General Ledger.
(No value)	Equivalent to Yes.

This profile option is visible to the user and the System Administrator and is updatable at the application and responsibility levels.

The internal name for this profile option is
PA_INTERFACE_UNRELEASED REVENUE.

PA: Licensed to Use AMG (Activity Management Gateway)

Indicates whether you have purchased and are a licensed user of Activity Management Gateway.

Available values are listed below:

Yes Activity Management Gateway has been purchased and licensed. Entitles the user to features and support. You must enable this profile option to use any application that is based on Activity Management Gateway.

No Default value is No, meaning that user does not have access to AMG features or support.

(No value) Equivalent to No

This profile option is visible to the System Administrator and updatable at the site level.

The internal name for this profile option is PA_AMG_LICENSED.

PA: Licensed to Use Project Billing

Indicates if Oracle Project Billing is licensed. Available values are listed below:

Yes In addition to Project Costing functions, Oracle Projects allows you to set up contract projects and perform all Project Billing functions.

No Only Oracle Project Costing functions are allowed. Oracle Project Billing functions cannot be used. This is the default value for this profile option.

(No value) Equivalent to No

This profile option is visible to the user and the System Administrator and is updatable at the site level.

The internal name for this profile option is PA_PROJECT_BILLING_INSTALLED.

PA: Log Summarization Statistics

Controls whether the system records the time required for the summarization processes to complete. The processes for which time is recorded are the Update Project Summary Amounts process (either for a single project or a range of projects) and the Refresh Project Summary Amounts process.

The possible values for this profile option are:

Yes	The system records time taken by the summarization processes.
No	The system does not record time taken by the summarization processes.
(No Value)	Equivalent to No

Oracle Projects predefines a value of *No* for this profile option upon installation.

If you are attempting to track performance of the summarization processes, set this this profile option to 'Yes'.

The system writes the performance statistics to the table PA_ACCUM_TXN_TIME. You can use the following scripts to query the table for statistics. You need the concurrent request ID of the process to query the table.

To query about the process ...	Use the script ...
Update Project Summary Amounts	\$PA_TOP/admin/sql/paxacmpt.sql
Refresh Project Summary Amounts	\$PA_TOP/admin/sql/paxacrpt.sql

This profile option is visible and updatable at the user level.

The internal name for this profile option is PA_LOG_SUMM_MODE.

PA: Projects Per Set

Indicates the number of projects to process in each call to AutoAccounting. This profile option affects the following processes:

- PRC: Interface Revenue to General Ledger
- PRC: Interface Invoices to Receivables

This profile option affects the amount of memory allocated for processing the specified number of projects through AutoAccounting. A single logical unit of work is performed independently of this profile variable.

You can choose any numeric value to set this profile option, so long as it does not cause your system to exceed memory and database rollback segment sizes, and it is large enough to avoid unnecessary database accesses.

If you do not set this profile value, most of the processes use a default of 100 projects, but this value is operating system dependent.

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is PA_NUM_PROJECTS_PER_SET.

PA: Receivables Invoice Line UOM

Indicates the unit of measure to use for all invoice lines interfaced from Oracle Projects and created in Oracle Receivables. Oracle Receivables requires a unit of measure for each invoice line. Oracle Projects creates each invoice line with a quantity of 1, a unit of the unit type you specify in your profile option, and an amount equal to the currency amount of the invoice line as it appears in Oracle Projects.

You need to define a unit of measure class before you define a unit of measure, since Oracle Receivables requires that you associate each unit of measure you define with a unit of measure class. Oracle Projects recommends that you define a unit of measure of *Each* or *EA* in Oracle Receivables for use with this profile. You must define a unit of measure and a unit of measure class before you can set this profile option. For detailed information, see the *Oracle Receivables User's Guide*.

If you are using Oracle Projects without Oracle Receivables, you do not need to set this profile. Oracle Projects uses the value *EA*.

You can choose from any unit of measure defined in Oracle Receivables.

This profile option is visible to the System Administrator and updatable at the site level.

The internal name for this profile option is PA_AR_INVOICE_UOM.

PA: Rule-Based Optimizer

Oracle Projects does not currently use this profile option, although you can view it using the Application Developer responsibility. The internal name for this profile option is PA_RULE_BASED_OPTIMIZER.

PA: Selective Flexfield Segment for AutoAccounting

Represents the segment number to be picked when building the flexfield select segment that queries the combination table. This is the most selective accounting flexfield segment to be used in AutoAccounting validation.

Set this profile option to the segment number to use. The segment number must start with 0.

This profile option is visible to the System Administrator and updatable at the application level.

For optimum performance, it is recommended that you set this value.

The internal name for this profile option is PA_SELECTIVE_FLEX_SEG.

PA: Streamline Process Sleep Interval

Indicates the number of seconds that the Streamline process sleeps before it checks the status of its child process.

You can choose any numeric value over 30 to set this profile. If you do not set this profile value, or use a value that is less than 30, a default value of 60 seconds is used. Oracle Projects predefines a value of 60 seconds for this profile upon installation.

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is PA_STRMLN_SLEEP_INTERVAL.

PA: Summarize Expense Report Lines

Indicates whether expense report lines in an expense report are summarized by code combination ID when you transfer expense reports to Payables.

Available values are listed below:

Yes	Summarize expense report lines in an expense report by code combination ID when transferring expense report to Payables.
No	Each detail expense report cost distribution line becomes an invoice distribution in Payables.
(No value)	Equivalent to No

This profile option is visible to the System Administrator and updatable at the application level.

The internal name for this profile option is PA_SUMMARIZE_EXPENSE_REPORT_LINES.

PA: Tab to Budget Matrix Comments Fields

Indicates how users navigate to the overflow (Change Reason / Comments / Descriptive Flexfield) region of the budget matrix window.

Yes	User can tab to the overflow region.
No	User cannot tab to the overflow region. User may navigate to the overflow region by clicking on any of the fields there.
(No value)	Equivalent to No

This profile option is visible to the System Administrator and updatable at the site, application, responsibility, and user levels.

The internal name for this profile option is
PA_BUDGET_MATRIX_TAB_ALLOWED.

PA: Tasks to Display for Expenditure Entry

Indicates which tasks to display in the Task Number list of values when entering pre-approved expenditures in Oracle Projects, supplier invoices in Payables, and requisitions and purchase orders in Purchasing.

All Tasks	Displays the entire WBS of the selected project
Chargeable Tasks	Displays only the chargeable tasks of the selected project
Lowest Tasks	Displays only the lowest tasks of the selected project

This profile option is visible to the user and System Administrator and updatable at the site, application, responsibility, and user levels.

The internal name for this profile option is PA_TASKS_DISPLAYED.

PA: Transfer DFF with AP

Indicates whether descriptive flexfield segments are interfaced from Payables to Oracle Projects and from Oracle Projects to Payables.

Yes	Descriptive flexfield segments are interfaced.
No	Descriptive flexfield segments are not interfaced.
(No value)	Equivalent to No

This profile option is visible to the user and updatable by the System Administrator at the site level.

The internal name for this profile option is PA_TRANSFER_DFF_AP.

Shared Profile Options

This section lists profile options that Oracle Projects shares with other Oracle Applications.

Account Generator: Purge Runtime Data

This profile option indicates whether to purge the data used to build account combinations as soon as the account generator has completed.

For best performance, set this profile option to No and then purge the runtime data in a separate operation. Setting the profile option to No retains (in the Oracle Workflow tables) the data used by the account generator to generate code combinations. To purge the data, run the Purge Obsolete Workflow Runtime Data program after the account generator process has executed successfully. The System Administrator can add this program to a request security group.

Setting this profile option to Yes purges the Oracle Workflow data as soon as the account generator has completed, but may slow the performance of the account generator.

Users can see and update this profile option.

This profile option is visible and updatable at all levels.

Tax: Allow Ad Hoc Tax Changes

Choose whether to update rates and amounts assigned to tax codes in the Transactions window in Receivables, if you defined tax codes in the Tax Codes and Rates window and set Ad-hoc to Yes.

The value for this option may be set by the system administrator at the site, application, responsibility, and user levels, but cannot be updated by the user.

The internal name for this profile option is AR_ALLOW_TAX_UPDATE.

Tax: Allow Override of Customer Exemptions

Use this profile option to enable users to override tax exemptions in Oracle Projects.

The value for this option may be set by the system administrator at the site, application, responsibility, and user levels, but cannot be updated by the user.

The internal name for this profile option is
AR_ALLOW_TRX_LINE_EXEMPTIONS.

Tax: Allow Override of Tax Code

User this profile option to allow users to override the default tax code on invoice lines in Oracle Projects.

The value for this option may be set by the system administrator at the site, application, responsibility, and user levels, but cannot be updated by the user.

The internal name for this profile option is
AR_ALLOW_TAX_CODE_OVERRIDE.

AR: Transaction Flexfield QuickPick Attribute

Determines the Invoice Transaction Flexfield attribute to display in transaction lists of values throughout Receivables. This further identifies the invoice based on project information and is displayed under the Reference column in the lists of values.

You can set this profile to display any project information Oracle Projects passes to Oracle Receivables. For example, if you want to select invoices by project number in Oracle Receivables, leave this profile option set to the predefined default value of
INTERFACE_HEADER_ATTRIBUTE1.

The segments that you can use from your Invoice Transaction Flexfield are as follows:

SEGMENT	COLUMN
Project Number	INTERFACE_HEADER_ATTRIBUTE1
Draft Invoice Number	INTERFACE_HEADER_ATTRIBUTE2
Agreement Number	INTERFACE_HEADER_ATTRIBUTE3
Project Organization	INTERFACE_HEADER_ATTRIBUTE4
Project Manager	INTERFACE_HEADER_ATTRIBUTE5

The value for this option may be set by the system administrator at the site, application, responsibility, and user levels, but cannot be updated by the user.

The internal name for this profile option is AR_PA_CODE.

AR: Use Invoice Accounting For Credit Memos

Choose whether you want to assign your credit memo to the same accounts assigned to the invoice you are crediting.

Receivables predefines this value as *Yes* at the site level. You must change this value to *No* for Oracle Projects invoices at the application level for Oracle Projects. AutoInvoice will reject Oracle Projects credit memos and write-offs if this profile option is not set to *No*.

Oracle Projects invoices must use the accounting transactions as determined by AutoAccounting in Oracle Projects to correctly debit and credit the unbilled receivables, unearned revenue, and write off accounts for credit memos and write offs.

The value for this option may be set by the system administrator at the site, application, responsibility, and user levels, but it cannot be updated by the user.

The internal name for this profile option is AR_USE_INV_ACCT_FOR_CM_FLAG.

GL: Set of Books Name

Use this profile option to specify your set of books.

The value for this profile option may be set by the system administrator at the site, application or responsibility level, but it cannot be viewed or updated by the user.

The internal name for this profile option is GL_SET_OF_BKS_NAME.

HR: Security Profile

Use this profile option to point your responsibility to a specific business group.

MO: Operating Unit

Use this profile option to control which operating unit a particular responsibility corresponds to only if you have implemented multiple organization support. See: *Multiple Organizations in Oracle Applications*.

The value for this option may be set by the system administrator at the site and responsibility levels, and can be updated by the user.

The internal name for this profile option is ORG_ID.

See Also

Profile Options: page 17 – 234

Personal Profile Values Window *Oracle Applications User's Guide*

Overview of Setting User Profiles *Oracle Applications System Administrator's Guide*

Common User Profile Options *Oracle Applications User's Guide*

C

Function Security

This appendix describes which Oracle Projects transactions and features are controlled by function security.

Function Security in Oracle Projects

Use function security to control user access to Oracle Projects functions. By default, access to Oracle Projects functionality is **not** restricted. You must ask your system administrator to customize your responsibilities to restrict access. Your system administrator customizes each responsibility at your site by including or excluding registered functions and menus of functions in the Responsibilities window.

For example, your system administrator creates a Budget Entry Clerk responsibility that allows entry and submission of budgets in the Budget Lines window, but does not allow the clerk to baseline a budget. The clerk signs on and selects the Budget Entry Clerk responsibility. When the clerk enters and submits a budget, the Baseline button is hidden.

The following examples are common results that you can produce by using function security:

- The window or menu does not appear in the Navigator window
- The button is hidden
- The field is not updatable

Use function security to control any of the following Oracle Projects functions:

User Function Name	Restrictions
Agreements	
Agreements	Enter agreements and funding
Agreement Templates	Define agreement and funding templates
Applications Data Warehouse	
Dimensions	Define dimensions
Billing	
Invoice: Approve	Approve an invoice via the Invoice Review window
Invoice: AR Invoice	Drill down to Accounts Receivable to view an invoice
Invoice: Cancel	Cancel an invoice via the Invoice Review window

Table C – 1 (Page 1 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Invoice: Expense Adjustments: Bill Hold: Indefinite	Place an indefinite bill hold via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Bill Hold: One Time	Place a one-time bill hold via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Bill Hold: Release	Release a bill hold via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Billable Reclass	Perform billable reclassifications via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Edit Comment	Edit expenditure item comments via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Non-Billable Reclass	Perform non-billable reclassifications via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Recalculate Burden Cost	Mark expenditure items for burden cost recalculation via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Recalculate Cost	Mark expenditure items for cost recalculation via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Recalculate Cost and Revenue	Mark expenditure items for cost and revenue recalculation via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Recalculate Revenue	Mark expenditure items for revenue recalculation via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Split	Perform splits via the Tools menu in the Invoice Line Details window
Invoice: Expense Adjustments: Transfer	Perform transfers via the Tools menu in the Invoice Line Details window
Invoice: Recalculate	Recalculate an invoice
Invoice: Regenerate	Regenerate an invoice via the Invoice Review window
Invoice: Release	Release an invoice via the Invoice Review window
Invoice: Write-Off	Perform an invoice write-off via the Invoice Review window

Table C – 1 (Page 2 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
<i>Budgets</i>	
Budgets	Enter budgets
Budgets: Cost Budgets: Baseline	Baseline a cost budget
Budgets: Cost Budgets: Create Revised Original	Create a revised original cost budget
Budgets: Cost Budgets: Submit	Submit a cost budget
Budgets: Line Source: Burdened Cost Extn	Update burdened cost amounts that were calculated by a budget calculation extension.
Budgets: Line Source: Copy Actual	Update or delete budget lines copied from actuals
Budgets: Line Source: Copy Version	Update or delete budget lines copied from budget versions
Budgets: Line Source: Raw Cost Extn	Update raw cost amounts that were calculated by a budget calculation extension.
Budgets: Line Source: Revenue Extn	Update revenue amounts that were calculated by a revenue extension.
Budgets: Revenue Budgets: Baseline	Baseline a revenue budget
Budgets: Revenue Budgets: Create Revised Original	Create a revised original revenue budget
Budgets: Revenue Budgets: Submit	Submit a revenue budget
<i>Capital Projects</i>	
Capital Projects	Manage capital projects asset capitalization
Capital Projects: Generate Asset Lines	Submit the Generate Asset Lines process via the Capital Projects window
Capital Projects: Reverse	Reverse capitalization of an asset via the Capital Projects window
Capital Projects: Split Asset Line	Split an asset line via the Asset Lines window

Table C – 1 (Page 3 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Customers	
Customers: Address Contacts	Enter and update customer contact address
Customers: Contacts	Enter and update customer contacts
Customers: Telephones	Enter and update customer telephone numbers
Events	
Invoice Events Maintenance	Enter and update invoice events
Revenue Events Maintenance	Enter and update revenue events
Expenditure Inquiry	
Expenditure Inquiry	Query and adjust expenditures
Expenditure Inquiry Across Projects	Perform cross-project queries in the Expenditure Inquiry window
Expenditure Inquiry: Run Project Streamline	Access the Run Project Streamline window available in the Expenditure Inquiry window
Expenditure Adjustments	
Expenditure Inquiry: Adjustments: Bill Hold: Indefinite	Place an indefinite bill hold via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Bill Hold: One Time	Place a one-time bill hold via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Bill Hold: Release	Release a bill hold via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Billable Reclass	Perform billable reclassifications via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Capitalizable Reclass	Perform a capitalizable reclass via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Edit Comment	Edit expenditure item comments via the Tools menu in the Expenditure Inquiry window

Table C – 1 (Page 4 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Expenditure Inquiry: Adjustments: Non-Billable Reclass	Perform non-billable reclassifications via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Non-Capitalizable Reclass	Perform a non-capitalizable reclass via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Recalculate Burden Cost	Mark expenditure items for burden cost recalculation via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Recalculate Cost	Mark expenditure items for cost recalculation via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Recalculate Cost and Revenue	Mark expenditure items for cost and revenue recalculation via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Recalculate Revenue	Mark expenditure items for revenue recalculation via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Split	Perform splits via the Tools menu in the Expenditure Inquiry window
Expenditure Inquiry: Adjustments: Transfer	Perform transfers via the Tools menu in the Expenditure Inquiry window
<i>Expenditure Inquiry Options</i>	
Expenditure Inquiry Option: AP Invoice	View an expenditure item's AP invoice using the Expenditure Items window
Expenditure Inquiry Option: Cost Distribution Lines	View an expenditure item's cost distribution lines via the Expenditure Items window
Expenditure Inquiry Option: Revenue Distribution Lines	View an expenditure item's revenue distribution lines via the Expenditure Items window
<i>Online Expenditure Review</i>	
Online Expenditure Review: Approve	Approve an expense report or timecard via the Online Expenditure Review window
Online Expenditure Review: Forward	Forward an expense report or timecard via the Online Expenditure Review window

Table C – 1 (Page 5 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Online Expenditure Review: Reject	Reject an expense report or timecard via the Online Expenditure Review window
<i>PA Periods</i>	
PA Periods: Copy	Copy PA Periods from a GL calendar
PA Periods: Set Reporting Period	Set the reporting period
<i>Pre-Approved Expenditure Entry</i>	
Pre-Approved Expenditure Entry	Enter and release pre-approved expenditures
Pre-Approved Expenditure Entry: Enter Burden Transactions	Enter or view burden transactions via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Expense Reports	Enter or view expense reports via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Inventory Transactions	Enter or view inventory transactions via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Miscellaneous Txns	Enter or view miscellaneous transactions via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Unmatched Negative Transactions	Enter unmatched negative transactions via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Timecards	Enter or view timecards via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Usage Logs	Enter or view usage logs via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Enter Work in Process	Enter or view work in progress via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Release	Release expenditure batches via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Reverse Batch	Reverse Expenditure Batches via the Pre-Approved Expenditure Entry window
Pre-Approved Expenditure Entry: Rework	Rework expenditure batches via the Pre-Approved Expenditure Entry window

Table C – 1 (Page 6 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Pre-Approved Expenditure Entry: Submit	Submit expenditure batches via the Pre-Approved Expenditure Entry window
Projects	
Projects	Enter and maintain projects
Mass Update Batches	Update project and task attributes in batches
Project Options	
Projects: Options: Asset Assignments	View and select the asset assignments option from the Project Options window
Projects: Options: Assets	View and select the assets option from the Project Options window
Projects: Options: Billing Assignments	View and select the billing assignments option from the Project Options window
Projects: Options: Billing Setup	View and select the billing setup option from the Project Options window
Projects: Options: Burden Schedule Overrides	View and select the burden schedule overrides option from the Project Options window
Projects: Options: Classifications	View and select the classifications option from the Project Options window
Projects: Options: Copy a project	Copy a project to another project.
Projects: Options: Costing Burden Schedules	View and select the costing burden schedules option from the Project Options window
Projects: Options: Credit Receivers	View and select the credit receivers option from the Project Options window
Projects: Options: Customers and Contacts	View and select the customers and contacts option from the Project Options window
Projects: Options: Employee Bill Rate Overrides	View and select the employee bill rate overrides option from the Project Options window
Projects: Options: Job Assignment Overrides	View and select the job assignment overrides option from the Project Options window
Projects: Options: Job Bill Rate Overrides	View and select the job bill rate overrides option from the Project Options window
Projects: Options: Job Billing Title Overrides	View and select the job billing title overrides option from the Project Options window

Table C – 1 (Page 7 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Projects: Options: Key Members	View and select the key members option from the Project Options window
Projects: Options: Labor Multipliers	View and select the labor multipliers option from the Project Options window
Projects: Options: Non-Labor Bill Rate Overrides	View and select the non-labor bill rate overrides option from the Project Options window
Projects: Options: Organization Overrides	View and select the organization overrides option from the Project Options window
Projects: Options: Resource List Assignments	View and select the resource list assignments option from the Project Options window
Projects: Options: Standard Billing Schedules	View and select the standard billing schedules option from the Project Options window
Projects: Options: Task Detail	View and select the task detail option from the Project Options window
Projects: Options: Tasks	View and select the tasks option from the Project Options window
Projects: Options: Transaction Controls	View and select the transaction controls option from the Project Options window
Project Organization Update	
Projects: Org Update: Override Standard Checks	Override default checks for changing project or task owning organization. Unlike other functions, this function is by default not assigned to a responsibility.
Project Status	
Projects: Status: Approved Statuses	Change a project's status to one that maps to the Approved system status
Projects: Status: Change Project Status	Change a project's status
Projects: Status: Closed Statuses	Change a project's status to one that maps to the Closed system status
Projects: Status: Pending Close Statuses	Change a project's status to one that maps to the Pending Close system status
Projects: Status: Submitted Statuses	Change a project's status to one that maps to the Submitted system status

Table C – 1 (Page 8 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Projects: Status: Unapproved Status	Change a project's status to one that maps to the Unapproved system status
<i>Project Status Inquiry</i>	
Project Status Display Columns	Define project status display columns
<i>Revenue Review</i>	
Review Revenue	Review information about project revenue
Revenue: Regenerate	Regenerate draft revenue
Revenue: Release	Release revenue
Revenue: Unrelease	Unrelease revenue
<i>Transaction Import</i>	
Import Transactions	Import transactions from an external system
Transaction Import: Pending Transactions	Review pending transactions for import
Transaction Import: Rejected Transactions	Enter or review transactions to be imported
Transaction Import: Review Transactions	Review transactions rejected by the Transaction Import process
<i>Project Reporting Currencies</i>	
Conversion Options	PRC conversion options
<i>Setting Up Oracle Projects</i>	
Agreement Types	Define agreement types
Bill Rate Schedules	Define bill rate schedules
Billing Cycles Maintenance	Maintain billing cycles
Billing Extensions	Define billing extensions
Budget Change Reasons	Define budget change reasons
Budget Entry Methods	Define budget entry methods
Burden Cost Codes	Define burden cost codes

Table C – 1 (Page 9 of 10) Function Security in Oracle Projects

User Function Name	Restrictions
Burden Schedules	Define burden schedules
Burden Structures	Define burden structures
Calendars	Define periods
Compensation Rules	Define compensation rules
Cost Bases	Define cost bases
Employee Cost Rates	Enter employee cost rates
Event Types	Define event types
Expenditure Categories	Define expenditure categories
Expenditure Types	Define expenditure types
Implementation Options	Define implementation options
Invoice Formats	Define invoice formats
Labor Cost Multipliers	Define labor cost multipliers
Non-Labor Resources	Define non-labor resources
PA Periods	Define PA periods
Project Classifications	Define project classifications
Project Role Types	Define project role types
Project Statuses	Define project statuses
Project Types	Define project types
Resource Lists	Define resource lists
Revenue Categories	Define revenue categories
Service Types	Define service types
Transaction Sources	Define transaction sources
Units	Define units of measure

Table C – 1 (Page 10 of 10) Function Security in Oracle Projects

In addition to the Oracle Projects functions shown above, the following Activity Management Gateway functions can be controlled using function security:



Attention: Oracle Projects Activity Management Gateway is not included in the Oracle Projects product. You cannot use any of the features described in this section unless you have

purchased Oracle Projects Activity Management Gateway and are a licensed user.

Activity Management Gateway User Function Name	Restriction(s)
Add Budget Line	Add a budget line
Add Resource List Member	Add a resource list member
Add Task	Add a task
Baseline Budget	Baseline budgets
Create Draft Budget	Create a draft budget
Create Project	Create a project
Create Resource List	Create resource lists
Delete Budget Line	Delete a budget line
Define Control Actions	Define Activity Management Gateway controls
Delete Draft Budget	Delete a draft budget
Delete Project	Delete a prorject
Delete Resource	Delete a resource
Delete Resource List	Delete a resource list
Delete Resource List Member	Delete a resource list member
Delete Task	Delete a task
Modify Top Task	Modify a top task
Source Products	Define Activity Management Gateway source products
Update Budget	Update a budget
Update Budget Line	Update a budget line
Update Earned Value	Update earned value
Update Project	Update a project
Update Resource List	Update a resource list

Table C – 2 Activity Management Gateway Function Security (Page 1 of 2)

Activity Management Gateway	
User Function Name	Restriction(s)
Update Resource List Member	Update a resource list member
Update Task	Update a task

Table C – 2 Activity Management Gateway Function Security (Page 2 of 2)

See Also

How project security and function security work together: page 15 – 14

Overview of Function Security *(Oracle Applications System Administrator's Guide)*

How Function Security Works *(Oracle Applications System Administrator's Guide)*

Implementing Function Security *(Oracle Applications System Administrator's Guide)*

Defining a New Menu Structure *Oracle Applications System Administrator's Guide*

APPENDIX

D

Descriptive Flexfields

This appendix lists the names of the descriptive flexfields you can customize in Oracle Projects.

Descriptive Flexfields in Oracle Projects

You can customize the following descriptive flexfields in Oracle Projects:

DESCRIPTIVE FLEXFIELD	WINDOW(S) CONTAINING DESCRIPTIVE FLEXFIELD
Agreement Types	Agreement Types
Agreements	Agreements
Billing Assignments	Projects Project Types
Billing Cycles	Billing Cycles
Billing Extensions	Billing Extensions
Budget Entry Methods	Budget Entry Methods
Budget Lines	Budgets
Budget Types	Budget Types
Budget Versions	Budgets
Burden Cost Codes	Burden Cost Codes
Class Categories	Class Categories and Codes
Class Codes	Class Categories and Codes
Compensation Details	Employee Cost Rates
Compensation Rule Sets	Compensation Rules
Draft Invoices	Invoice Review
Employee Cost Rates	Employee Cost Rates
Event Types	Event Types
Events	Events
Expenditure Categories	Expenditure Categories
Expenditure Items	Pre-Approved Expenditure Entry Expenditure Items
Expenditure Types	Expenditure Types

Table D-1 Descriptive Flexfields in Oracle Projects (Page 1 of 3)

DESCRIPTIVE FLEXFIELD	WINDOW(S) CONTAINING DESCRIPTIVE FLEXFIELD
Expenditures	Pre-Approved Expenditure Entry Expenditure Items
Funding History	Funding Inquiry
Indirect Cost Codes	Burden Cost Codes
Lookup Sets	Lookup Sets
Mass Update Batches	Mass Update Batches
Non-Labor Resources	Non-Labor Resources
Non-Labor Resource Organizations	Non-Labor Resources
Project Assets	Projects Capital Projects
Project Classifications	Project Classifications
Project Funding	Agreements Project Funding Inquiry
Project Role Types	Project Role Types
Project Statuses	Project Statuses
Project Types	Project Types
Projects	Projects, Summary
Provider Receiver Controls	Provider Receiver Controls
Resources	Resources
Standard Bill Rate Schedules	Bill Rate Schedules
Tasks	Tasks
Transaction Sources	Transaction Sources
Transfer Price Rules	Transfer Price Rules

Table D-1 Descriptive Flexfields in Oracle Projects (Page 2 of 3)

DESCRIPTIVE FLEXFIELD	WINDOW(S) CONTAINING DESCRIPTIVE FLEXFIELD
Transfer Price Schedules	Transfer Price Schedules
Transfer Price Schedule Lines	Transfer Price Schedules

Table D–1 Descriptive Flexfields in Oracle Projects (Page 3 of 3)

See Also

Descriptive Flexfields: page 17 – 236

Defining Descriptive Flexfields (*Oracle Applications Descriptive Flexfields Guide*)

Planning Your Descriptive Flexfield (*Oracle Applications Descriptive Flexfields Guide*)

APPENDIX

E

Attachments

This appendix provides a description of the use of attachments in Oracle Projects.

Attachments in Oracle Projects

As of Oracle Applications Production 16, Oracle Projects supports attachments for the following entities. You can access attachments for these entities in the windows listed.

The table below shows each window that supports attachments and the mode in which the attachments feature can be used.

If you copy a project from an existing project that has an attachment, the attachment is copied to the new project. If you copy an existing capital project, attachments to assets associated with the existing project will be copied to the new project.

Entity / Possible Uses for Attachments	Window	Mode(s)
Projects: Attach project scope / definition document or project management plan	Projects	Update
	Project Status	Query
	Capital Projects Workbench	Query
Tasks: Attach task scope / definition document or task management plan	Projects > Tasks	Update
	Project Status > Task Status	Query
Budget Versions: Attach document used for budget preparation	Budgets (Draft Budget)	Update
	Budget Version History	Query
Expenditures: Attach images of timesheets and expense report receipts	Pre-Approved Expenditure Entry > Expenditures	Update
	Project Expenditure Inquiry / Cross-Project Expenditure Inquiry > Expenditure Items	Query
	Invoice Review > Expenditure Item Detail	Query
	Capital Projects Workbench > Expenditure Item Detail	Query
	Project Status > Expenditure Item Detail	Query
Project Assets: Attach description of the asset to be constructed	Projects > Assets	Update
	Capital Projects Workbench > Assets	Update
Agreements: Attach image of customer agreement or document with additional terms	Agreement	Update
	Agreement Templates	Update

Entity / Possible Uses for Attachments	Window	Mode(s)
Project Funding: Attach document on approval or description of project funding	Fund Projects	Update
	Funding History	Query
Draft Invoice: Attach copy of invoice or supporting document sent to customer	Draft Invoices	Update

See Also

About Attachments *Oracle Applications User's Guide*

Glossary

Note: Some terms appear more than once because they are shared by more than one Oracle Financial Applications product. These alternate definitions are provided so you can see how the same term or feature name is used in other applications.

Account Generator A feature that uses Oracle Workflow to provide various Oracle Applications with the ability to construct Accounting Flexfield combinations automatically using custom construction criteria. You define a group of steps that determine how to fill in your Accounting Flexfield segments. You can define additional processes and / or modify the default process(es), depending on the application. See also *activity, function, item type, lookup type, node, process, protection level, result type, transition, Workflow Engine*

Account segment One of up to 30 different sections of your Accounting Flexfield, which together make up your general ledger account code. Each segment is separated from the other segments by a symbol you choose (such as -, /, or \). Each segment typically represents an element of your business structure, such as Company, Cost Center or Account.

Account segment value A series of characters and a description that define a unique value for a particular value set.

accounting currency In some financial contexts, a term used to refer to the currency in which accounting data is maintained. In this manual, this currency is called functional currency. See *functional currency*

Accounting Flexfield The code you use to identify a general ledger account in an Oracle Financials application. Each Accounting Flexfield segment value corresponds to a summary or rollup account within your chart of accounts.

Accounting Flexfield structure The account structure you define to fit the specific needs of your organization. You choose the number of segments, as well as the length, name, and order of each segment in your Accounting Flexfield structure.

Accounting Flexfield value set A group of values and attributes of the values. For example, the value length and value type that you assign to your account segment to identify a particular element of your business, such as Company, Division, Region, or Product.

accrue through date The date through which you want to accrue revenue for a project. Oracle Projects picks up expenditure items having an expenditure item date on or before this date, and events having a completion date on or before this date, when accruing revenue. An exception to this rule are projects that use cost-to-cost revenue accrual; in this case, the accrue through date used is the PA Date of the expenditure item's cost distribution lines.

accumulation An obsolete term. See also *summarization*.

activity In Oracle Workflow, a unit of work performed during a business process.

activity In Oracle Receivables, a name that you use to refer to a receivables activity such as a payment, credit memo, or adjustment. See also *activity attribute*, *function activity*, .

activity attribute A parameter for an Oracle Workflow function activity that controls how the function activity operates. You define an activity attribute by displaying the activity's Attributes properties page in the Activities window of Oracle Workflow Builder. You assign a value to an activity attribute by displaying the activity node's Attribute Values properties page in the Process window.

ad hoc Concerned with or formed for a particular purpose. For example, ad hoc tax codes or an ad hoc database query.

advance An amount of money prepaid in anticipation of receipt of goods, services, obligations or expenditures.

advance In Oracle Payables, an advance is a prepayment paid to an employee. You can apply an advance to an employee expense report during expense report entry, once you fully pay the advance.

agreement A contract with a customer that serves as the basis for work authorization. An agreement may represent a legally binding contract, such as a purchase order, or a verbal authorization. An agreement sets the terms of payment for invoices generated against the agreement, and affects whether there are limits to the amount of revenue you can accrue or bill against the agreement. An agreement can fund the work of one or more projects.

agreement type An implementation-defined classification of agreements. Typical agreement types include purchase order and service agreement.

allocation method An attribute of an allocation rule that specifies how the rule collects and allocates the amounts in the source pool. There are two allocation methods, full allocation and incremental allocation. See also *full allocation*, *incremental allocation*

allocation rule A set of attributes that describes how you want to allocate amounts in a source pool to specified target projects and tasks.

allocation run The results of the PRC: Generate Allocation Transactions process.

alternative region An alternative region is one of a collection of regions that occupy the same space in a window where only one region can be displayed at any time. You identify an alternative region by a poplist icon that displays the region title, which sits on top of a horizontal line that spans the region.

amount class For allocations, the period or periods during which the source pool accumulates amounts.

approved date The date on which an invoice is approved.

archive To store historical transaction data outside your database.

asset An object of value owned by a corporation or business. Assets are entered Oracle Projects as non-labor resources. See

attribute See *activity attribute, item type attribute*

AutoAccounting In Oracle Projects, a feature that automatically determines the account coding for an accounting transaction based on the project, task, employee, and expenditure information.

AutoAccounting In Oracle Receivables, a feature that lets you determine how the Accounting Flexfields for your revenue, receivable, freight, tax, unbilled receivable and unearned revenue account types are created.

AutoAccounting function A group of related AutoAccounting transactions. There is at least one AutoAccounting function for each Oracle Projects process that uses AutoAccounting. AutoAccounting functions are predefined by Oracle Projects.

AutoAccounting Lookup Set An implementation-defined list of intermediate values and corresponding Accounting Flexfield segment values. AutoAccounting lookup sets are used to translate intermediate values such as organization names into account codes.

AutoAccounting parameter A variable that is passed into AutoAccounting. AutoAccounting parameters are used by AutoAccounting to determine account codings. Example AutoAccounting parameters available for an expenditure item are the expenditure type and project organization. AutoAccounting parameters are predefined by Oracle Projects.

AutoAccounting Rule An implementation-defined formula for deriving Accounting Flexfield segment values. AutoAccounting rules may use a combination of AutoAccounting parameters, AutoAccounting lookup sets, SQL statements, and constants to determine segment values.

AutoAccounting Transaction A repository of the account coding rules needed to create one accounting transaction. For each accounting transaction created by Oracle Projects, the necessary AutoAccounting rules are held in a corresponding AutoAccounting Transaction. AutoAccounting transactions are predefined by Oracle Projects.

autoallocation set A group of allocations rules that you can run in sequence that you specify (step-down allocations) or at the same time (parallel allocations). See also *step-down allocation, parallel allocation*

AutoInvoice A program that imports invoices, credit memos, and on account credits from other systems to Oracle Projects.

automatic event An event with an event type classification of Automatic. Billing extensions create automatic events to account for the revenue and invoice amounts calculated by the billing extensions.

AutoReduction An Oracle Applications feature in the list window that allows you to shorten a list so that you must scan only a subset of values before choosing a final value. Just as AutoReduction incrementally reduces a list of values as you enter additional character(s), pressing [Backspace] incrementally expands a list.

AutoSelection A feature in the list window that allows you to choose a valid value from the list with a single keystroke. When you display the list window, you can type the first character of the choice you want in the window. If only one choice begins with the character you enter, AutoSelection selects the choice, closes the list window, and enters the value in the appropriate field.

AutoSkip A feature specific to flexfields where Oracle Applications automatically moves your cursor to the next segment as soon as you enter a valid value into a current flexfield segment. You can turn this feature on or off with the user profile option Flexfields:AutoSkip.

balancing segment An Accounting Flexfield segment that you define so that General Ledger automatically balances all journal entries for each value of this segment. For example, if your company segment is a balancing segment, General Ledger ensures that, within every journal entry, the total debits to company 01 equal the total credits to company 01.

baseline To approve a budget for use in reporting and accounting.

baseline budget The authorized budget for a project or task which is used for performance reporting and revenue calculation.

basis method How an allocation rule is to allocate the amounts in a source pool to target projects. The basis methods include options to spread the amounts evenly, allocate by percentage, or prorate amounts based on criteria you specify. Also referred to as the "basis." See also *source pool*

batch source A source you define in Oracle Receivables to identify where your invoicing activity originates. The batch source also controls invoice defaults and invoice numbering. Also known as a **transaction batch source**.

bill rate A rate per unit at which an item accrues revenue and /or is invoiced for time and material projects. Employees, jobs, expenditure types, and non-labor resources can have bill rates.

bill rate schedule A set of standard bill rates that maintains the rates and percentage markups over cost that you charge clients for your labor and non-labor expenditures.

bill site The customer address to which project invoices are sent.

bill through date The date through which you want to invoice a project. Oracle Projects picks up revenue distributed expenditure items having an expenditure item date on or before this date, and events having a completion date on or before this date, when generating an invoice.

billing The functions of revenue accrual and invoicing.

billing cycle The billing period for a project. Examples of billing cycles you can define are: a set number of days, the same day each week or month, or the project completion date. You can optionally use a client extension to define a billing cycle.

billing title See *Employee Billing Title*, *Job Billing Title*.

block Every Oracle Applications window (except root and modal windows) consists of one or more blocks. A block contains information pertaining to a specific business entity. Generally, the first or only block in a window assumes the name of the window. Otherwise, a block name appears across the top of the block with a horizontal line marking the beginning of the block.

budget Estimated cost, revenue, labor hours or other quantities for a project or task. Each budget may optionally be categorized by resource. Different budget types may be set up to classify budgets for different purposes. In addition, different versions can exist for each user-defined budget type: current, original, revised original, and historical versions. The current version of a budget is the most recently baselined version. See also *budget line*, *resource*.

budget line Estimated cost, revenue, labor hours, or other quantity for a project or task categorized by a resource.

burden cost code An implementation-defined classification of overhead costs. A burden cost code represents the type of burden cost you want to apply to raw cost. For example, you can define a burden cost code of G&A to burden specific types of raw costs with General and Administrative overhead costs.

burden costs Burden costs are legitimate costs of doing business that support raw costs and cannot be directly attributed to work performed. Examples of burden costs are fringe benefits, office space, and general and administrative costs.

burden multiplier A numeric multiplier associated with an organization for burden schedule revisions, or with burden cost codes for projects or tasks. This multiplier is applied to raw cost to calculate burden cost amounts. For example, you can assign a multiplier of 95% to the burden cost code of Overhead.

burden schedule An implementation-defined set of burden multipliers that is maintained for use across projects. Also referred to as a *standard burden schedule*. You may define one or more schedules for different purposes of costing, revenue accrual, and invoicing. Oracle Projects applies the burden multipliers to the raw cost amount of an expenditure item to derive an amount; this amount may be the total cost, revenue amount, or bill amount. You can override burden schedules by entering negotiated rates at the project and task level. See also *Firm Schedule*, *Provisional Schedule*, *Burden Schedule Revision*, *Burden Schedule Override*.

burden schedule override A schedule of negotiated burden multipliers for projects and tasks that overrides the schedule you defined during implementation.

burden schedule revision A revision of a set of burden multipliers. A schedule can be made of many revisions.

burden structure A burden structure determines how cost bases are grouped and what types of burden costs are applied to the cost bases. A burden structure defines relationships between cost bases and burden cost codes and between cost bases and expenditure types.

burdened cost The cost of an expenditure item, including raw cost and burden costs.

business entity A person, place, or thing that is tracked by your business. For example, a business entity can be an account, a customer, or a part.

business group The highest level of organization and the largest grouping of employees across which a company can report. A business group can correspond to an entire company, or to a specific division within the company. Each installation of Oracle Projects uses one business group with one hierarchy.

button You choose a button to initiate a predefined action. Buttons do not store values. A button is usually labeled with text to describe its action or it can be an icon whose image illustrates its action.

capital project A project in which you build one or more depreciable fixed assets.

chart of accounts The account structure your organization uses to record transactions and maintain account balances.

chart of accounts structure A classification of account segment values that assigns a particular range of values a common characteristic. For example, 1000 to 1999 might be the range of segment values for assets in the account segment of your accounting flexfield.

check box You can indicate an on / off or yes / no state for a value by checking or unchecking its check box. One or more check boxes can be checked since each check box is independent of other check boxes.

child request A concurrent request submitted by another concurrent request (a parent request.) For example, each of the reports and/or programs in a report set are child requests of that report set.

CIP assets See *construction-in-process assets*.

chargeable project For each expenditure, a project to which the expenditure can be charged or transferred.

class category An implementation-defined category for classifying projects. For example, if you want to know the market sector to which a project belongs, you can define a class category with a name such as *Market Sector*. Each class category has a set of values (class codes) that can be chosen for a project. See *class code*

class code An implementation-defined value within a class category that can be used to classify a project. See *class category*.

clearing account An account used to ensure that both sides of an accounting transaction are recorded.

combination block A combination block displays the fields of a record in both multi-record (summary) and single-record (detail) formats. Each format appears in its own separate window that you can easily navigate between.

combination of segment values A combination of segment values uniquely describes the information stored in a field made up of segments. A different combination of segment values results when you change the value of one or more segments. When you alter the combination of segment values, you alter the description of the information stored in the field.

combination query See *Existing Combinations*.

comment alias A user-defined name for a frequently used line of comment text, which can be used to facilitate online entry of timecards and expense reports.

compensation rule An implementation-defined name for an employee compensation method. Also known as pay type. Typical compensation rules include *Hourly* and *Exempt*.

complete matching A condition where the invoice quantity matches the quantity originally ordered, and you approve the entire quantity. See also *matching*, *partial matching*.

construction-in-process (CIP) asset A depreciable fixed asset you plan to build during a capital project. The costs associated with building CIP assets are referred to as CIP costs. See also *capital project*.

concurrent manager A unique facility that manages many time-consuming, non-interactive tasks within Oracle Applications for you, so you do not have to wait for their completion. When you submit a request in Oracle Applications that does not require your interaction, such as releasing shipments or running a report, the Concurrent Manager does the work for you, enabling you to complete multiple tasks simultaneously.

concurrent process A non-interactive task that you request Oracle Applications to complete. Each time you submit a non-interactive task, you create a new concurrent process. A concurrent process runs simultaneously with other concurrent processes (and other interactive activities on your computer) to help you complete multiple tasks at once.

concurrent queue A list of concurrent requests awaiting completion by a concurrent manager. Each concurrent manager has a queue of requests waiting to be run. If your system administrator sets up your Oracle Application to have simultaneous queuing, your request can wait to run in more than one queue.

concurrent request A request to Oracle Applications to complete a non-interactive task for you. You issue a request whenever you submit a non-interactive task, such as releasing a shipment, posting a journal entry, or running a report. Once you submit a request, Oracle Applications automatically takes over for you, completing your request without further involvement from you or interruption of your work.

contact

contact In Oracle Projects, a customer representative who is involved with a project. For example, a contact can be a billing contact, the customer representative who receives project invoices.

contact type An implementation-defined classification of project contacts according to their role in the project. Typical contact types are Billing and Shipping.

context field prompt A question or prompt to which a user enters a response, called a context field value. When Oracle Applications displays a descriptive flexfield pop-up window, it displays your context field prompt after it displays any global segments you have defined. Each descriptive flexfield can have up to one context prompt.

context field value A response to your context field prompt. Your response is composed of a series of characters and a description. The response and description together provide a unique value for your context prompt, such as 1500, Journal Batch ID, or 2000, Budget Formula Batch ID. The context field value determines which additional descriptive flexfield segments appear.

context response See *context field value*.

context segment value A response to your context-sensitive segment. The response is composed of a series of characters and a description. The response and description together provide a unique value for your context-sensitive segment, such as Redwood Shores, Oracle Corporation Headquarters, or Minneapolis, Merrill Aviation's Hub.

context-sensitive segment A descriptive flexfield segment that appears in a second pop-up window when you enter a response to your context field prompt. For each context response, you can define multiple context segments, and you control the sequence of the context segments in the second pop-up window. Each context-sensitive segment typically prompts you for one item of information related to your context response.

contract project A project for which you can generate revenue and invoices. Typical contract project types include Time and Materials and Fixed Price. Formerly known as a **direct project**.

conversion A process that converts foreign currency transactions to your functional currency.

corporate exchange rate An exchange rate you can optionally use to perform foreign currency conversion. The corporate exchange rate is usually a standard market rate determined by senior financial management for use throughout the organization. You define this rate in Oracle General Ledger.

cost base A cost base refers to the grouping of raw costs to which burden costs are applied. Examples of cost bases are Labor and Materials.

cost budget The estimated cost amounts at completion of a project. Cost budget amounts can be summary or detail, and can be burdened or unburdened.

cost burden schedule A burden schedule used for costing to derive the total cost amount. You assign the cost burden schedule to a project type that is burdened; this default cost burden schedule defaults to projects that use the project type; and then from the project to the tasks below the project. You may override the cost burden schedule for a project or a task if you have defined the project type option to allow overrides of the cost burden schedule.

cost distribution The act of calculating the cost and determining the cost accounting for an expenditure item.

cost rate The monetary cost per unit of an employee, expenditure type, or resource.

cost-to-cost A revenue accrual method that calculates project revenue as budgeted revenue multiplied by the ratio of actual cost to budgeted cost. Also known as **percentage of completion method** or **percentage spent method**.

credit memo In Oracle Payables and Oracle Projects, a document that partially or fully reverses an original invoice.

credit memo In Oracle Receivables, a document that partially or fully reverses an original invoice. You can create credit memos in the Receivables Credit Transactions window or with Autoinvoice.

cross charge To charge a resource to a project owned by a different operating unit.

credit receiver A person receiving credit for project or task revenue. One project or task may have many credit receivers for one or many credit types.

credit type An implementation-defined classification of the credit received by a person for revenue a project earns. Typical credit types include Quota Credit and Marketing Credit.

Cross-Project responsibility A responsibility that permits users to view and update any project.

cross-project user A user who is logged into Oracle Projects using a Cross-Project responsibility.

current budget The most recently baselined budget version of the budget.

current record indicator Multi-record blocks often display a current record indicator to the left of each record. A current record indicator is a one character field that when filled in, identifies a record as being currently selected.

customer agreement See *agreement*.

database table A basic data storage structure in a relational database management system. A table consists of one or more units of information (rows), each of which contains the same kind of values (columns). Your application's programs and windows access the information in the tables for you.

deferred revenue An event type classification that generates an invoice for the amount of the event, and has no immediate effect on revenue. The invoice amount is accounted for in an unearned revenue account that will be offset as the project accrues revenue.

denomination currency In some financial contexts, a term used to refer to the currency in which a transaction takes place. In this manual, this currency is called transaction currency. See: *transaction currency*

depreciate To depreciate an asset is to spread its cost over the time you use it. You charge depreciation expense for the asset each period. The total depreciation taken for an asset is stored in the accumulated depreciation account.

descriptive flexfield A field that your organization can extend to capture extra information not otherwise tracked by Oracle Applications. A descriptive flexfield appears in your window as a single character, unnamed field. Your organization can customize this field to capture additional information unique to your business.

direct project An obsolete term. See *contract project*.

dimension An Oracle Financial Analyzer database object used to organize and index the data stored in a variable. Dimensions answer the following questions about data: "What?" "When?" and "Where?" For example, a variable called Units Sold might be associated with the dimensions Product, Month, and District. In this case, Units Sold describes the number of products sold during specific months within specific districts.

distribution line In Oracle Payables and Oracle Projects, a line corresponding to an accounting transaction for an expenditure item on an invoice, or a liability on a payment.

distribution line In Oracle Assets, information such as employee, general ledger depreciation expense account, and location to which you have assigned an asset. You can create any number of distribution lines for each asset. Oracle Assets uses distribution lines to allocate depreciation expense and to produce your Property Tax and Responsibility Reports.

distribution rule See *revenue distribution rule*.

draft budget A preliminary budget which may be changed without affecting revenue accrual on a project.

draft invoice A potential project invoice that is created, adjusted, and stored in Oracle Projects. Draft invoices require approval before they are officially accounted for in other Oracle Applications.

draft revenue A project revenue transaction that is created, adjusted, and stored in Oracle Projects. You can adjust draft revenue before you transfer it to other Oracle Applications.

drilldown A software feature that allows you to view the details of an item in the current window via a window in a different application.

dynamic insertion An Accounting Flexfields feature that allows you to enter and define new combinations of segment values directly in a flexfield pop-up window in Oracle Payables and Oracle General Ledger. The new combination must satisfy any cross-validation rules before it is accepted. Your organization can decide if an Accounting Flexfield supports dynamic insertion. If an account does not support dynamic insertion, you can only enter new combinations of segment values using the Define Accounts window

dynamic insertion In Oracle Projects, a feature specific to key flexfields that allows you to enter and define new combinations of segment values directly into a flexfield pop-up window. The new combination must satisfy any cross-validation rules, before your flexfield accepts the new combination. Your organization can decide if a key flexfield supports dynamic insertion. If a flexfield does not support dynamic insertion, you can only enter new combinations of segment values using a combinations form (a form specifically used for creating and maintaining code combinations).

dynamic insertion In Oracle Receivables, an Oracle Applications feature you use to automatically create new key flexfield combinations when you enter transactions or customers. If you do not use dynamic insertion, you can only create new key flexfield combinations using the various flexfield setup forms.

employee billing title An employee title, which differs from a job billing title, that may appear on an invoice. Each employee can have a unique employee billing title.

employee organization The organization to which an employee is assigned.

euro A single currency adopted by the 11 member countries of the Economic and Monetary Union (EMU) beginning January 1, 1999. These countries include Austria, Belgium, France, Finland, Germany, Ireland, Italy, Luxemburg, the Netherlands, Portugal, and Spain. The official abbreviation for the euro is EUR. This abbreviation is used for all commercial, business, and financial purposes, and has been registered with the International Standards Organization (ISO).

event In Oracle Projects, a summary level transaction assigned to a project or top task that records work completed and generates revenue and /or billing activity, but is not directly related to any expenditure items. For example, unlike labor costs or other billable expenses, a bonus your business receives for completing a project ahead of schedule is not attributable to any expenditure item, and would be entered as an event.

event type An implementation-defined classification of events that determines the revenue and invoice effect of an event. Typical event types include Milestones, Scheduled Payments, and Write-Offs.

exchange rate In Oracle Cash Management and Oracle General Ledger, a rate that represents the amount of one currency that you can exchange for another at a particular point in time. Oracle Applications use the daily, periodic, and historical exchange rates you maintain to perform foreign currency conversion, revaluation, and translation.

exchange rate In Oracle Receivables and Oracle Payables, a rate that represents the amount in one currency that you can exchange for another at a particular point in time. You can enter and maintain daily exchange rates for Oracle Projects to use to perform foreign currency conversion. Oracle Projects multiplies the exchange rate by the foreign currency to calculate the functional currency.

exchange rate type A specification of the source of an exchange rate. For example, a user exchange rate or a corporate exchange rate. See also *corporate exchange rate*, *spot exchange rate*.

Existing Combinations A feature specific to key flexfields in data entry mode that allows you to enter query criteria in the flexfield to bring up a list of matching predefined combinations of segment values to select from.

expenditure A group of expenditure items incurred by an employee or an organization for an expenditure period. Typical expenditures include Timecards and Expense Reports.

expenditure (week) ending date The last day of an expenditure week period. All expenditure items associated with an expenditure must be on or before the expenditure ending date, and must fall within the expenditure week identified by the expenditure week ending date.

expenditure category An implementation-defined grouping of expenditure types by type of cost. For example, an expenditure category with a name such as *Labor* refers to the cost of labor.

expenditure comment Free text that can be entered for any expenditure item to explain or describe it in further detail.

expenditure cost rate The monetary cost per unit of a non-labor expenditure type.

expenditure cycle A weekly period for grouping and entering expenditures.

expenditure group A user-defined name used to track a group of pre-approved expenditures, such as Timecards, or Expense Reports.

expenditure item The smallest logical unit of expenditure you can charge to a project and task. For example, an expenditure item can be a timecard item or an expense report item.

expenditure item date The date on which work is performed and is charged to a project and task.

expenditure operating unit For an expenditure, the operating unit where the expenditure item was incurred against a project.

expenditure organization For timecards and expense reports, the organization to which the incurring employee is assigned, unless overridden by organization overrides. For usage, supplier invoices, and purchasing commitments, the incurring organization entered on the expenditure.

expenditure type An implementation-defined classification of cost that you assign to each expenditure item. Expenditure types are grouped into cost groups (expenditure categories) and revenue groups (revenue categories).

expenditure type class An additional classification for expenditure types that indicates how Oracle Projects processes the expenditure types. For example, if you run the Distribute Labor Costs process, Oracle Projects will calculate the cost of all expenditure items assigned to the Straight Time expenditure type class. Formerly known as **system linkage**.

expense report In Oracle Payables, a document that details expenses incurred by an employee for the purpose of reimbursement. You can enter expense reports online in Payables or Web Employees, or you can import them from Projects.

expense report In Oracle Projects, a document that, for purposes of reimbursement, details expenses incurred by an employee. You can set up expense report templates to match the format of your expense reports to speed data entry. You must create invoices from Payables expense reports using Invoice Import before you can pay the expense reports.

external organization See *organization*.

feeder program A custom program you write to transfer your transaction information from an original system into Oracle Application interface tables. The type of feeder program you write depends on the environment from which you are importing data.

field A position on a window that you use to enter, view, update, or delete information. A field prompt describes each field by telling you what kind of information appears in the field, or alternatively, what kind of information you should enter in the field.

firm schedule A burden schedule of burden multipliers that will not change over time. This is compared to provisional schedules in which actual multipliers are mapped to provisional multipliers after an audit.

first bill offset days The number of days that elapse between a project start date and the date that the project's first invoice is issued.

fixed asset An item owned by your business and used for operations. Fixed assets generally have a life of more than one year, are acquired for use in the operation of the business, and are not intended for resale to customers. Assets differ from inventory items since you use them rather than sell them.

fixed date See *schedule fixed date*.

flat file A file where the data is unformatted for a specific application.

flexfield An Oracle Applications field made up of segments. Each segment has an assigned name and a set of valid values. Oracle Applications uses flexfields to capture information about your organization. There are two types of flexfields: key flexfields and descriptive flexfields.

flexfield segment One of the sections of your key flexfield, separated from the other sections by a symbol that you define (such as -, /, or \). Each segment typically represents an element of your business, such as cost center, product, or account.

folder A flexible entry and display window in which you can choose the fields you want to see and where each appears in the window.

foreign currency In Oracle Cash Management, Payables, Receivables, Projects currency that you define for your set of books for recording and conducting accounting transactions in a currency other than your functional currency. See also *exchange rate*, *functional currency*.

foreign currency In Oracle Assets, a currency that you define for your set of books to record and conduct accounting transactions in a currency other than your functional currency.

foreign currency conversion In Oracle Cash Management and Oracle General Ledger, a process that converts a foreign currency journal entry into your functional currency. Oracle Projects automatically converts the currency whenever you enter a journal entry in a currency other than your functional currency. Oracle Projects multiplies the daily exchange rate you define or the exchange rate you enter to convert amounts for your functional currency. You can view the results of foreign currency conversion in the Enter Journals window.

foreign currency conversion In Oracle Receivables and Oracle Payables, the conversion of a foreign currency transaction, such as an invoice or a payment, into your functional currency. Oracle Projects automatically performs this conversion whenever you enter an invoice or make a payment in a currency other than your functional currency.

foreign currency conversion In Oracle Projects, a process that converts a foreign currency transaction to your functional currency.

form A logical collection of fields, regions, and blocks that appear on a single screen. Oracle Applications forms look just like the paper forms you use to run your business. All you need to do to enter data is type onto the form. See *window*.

full allocation An allocation method that distributes all the amounts in the specified projects in the specified amount class. The full allocation method is generally suitable if you want to process an allocation rule only once in a run period. See also *incremental allocation*

function A PL/SQL stored procedure referenced by an Oracle Workflow function activity that can enforce business rules, perform automated tasks within an application, or retrieve application information. The stored procedure accepts standard arguments and returns a completion result. See also *function activity*.

function activity An automated Oracle Workflow unit of work that is defined by a PL/SQL stored procedure. See also *function*.

function security An Oracle Applications feature that lets you control user access to certain functions and windows. By default, access to functionality is *not* restricted; your system administrator customizes each responsibility at your site by including or excluding functions and menus in the Responsibilities window.

functional currency In Oracle Assets, General Ledger, and Cash Management, the principal currency you use to record transactions and maintain accounting data within Oracle Projects. The functional currency is usually the currency in which you perform most of your business transactions. You specify the functional currency for each set of books in the Set of Books window.

functional currency In Oracle Payables and Receivables, the principal currency you use to record transactions and maintain your accounting data for your set of books. You define the functional currency for each set of books within your organization. When you enter and pay an invoice in a foreign currency, Oracle Projects automatically converts the foreign currency into your functional currency based on the exchange rate you define. Oracle Projects creates journal entries for your multiple currency invoices and payments in both your foreign and functional currencies.

functional currency In Oracle Projects, the principal currency you use to maintain accounting data in your General Ledger.

GL Date In Oracle Payables and Oracle Receivables, the date used to determine the correct accounting period for your invoice and payment transactions. You assign a GL Date to your invoices during invoice entry and your payments during payment creation.

GL Date In Oracle Cash Management, the date used to determine the correct accounting period for your accounting transactions.

GL Date In Oracle Projects, the end date of the GL Period in which costs or revenue are transferred to Oracle General Ledger. This date is determined from the open or future GL Period on or after the PA Date of a cost distribution line or revenue. For invoices, the GL Date is the date within the GL Period on which an invoice is transferred to Oracle Receivables, and is based on the invoice date.

global segment prompt A non–context–sensitive descriptive flexfield segment. Each global segment typically prompts you for one item of information related to the zone or form in which you are working.

global segment value A response to your global segment prompt. Your response is composed of a series of characters and a description. The response and description together provide a unique value for your global segment, such as J. Smith, Financial Analyst, or 210, Building C.

hard limit An option for an agreement that prevents revenue accrual and invoice generation beyond the amount allocated to a project or task by the agreement. If you do not impose a hard limit, Oracle Projects automatically imposes a soft limit of the same amount. See also *soft limit*.

incremental allocation An allocation method that creates expenditure items based on the difference between the transactions processed from one allocation to the next. This method is generally suitable if you want to use an allocation rule in allocation runs several times in a given run period. See also *full allocation*

indirect project A project used to collect and track costs for overhead activities, such as administrative labor, marketing, and bid and proposal preparation. You can also define indirect projects to track time off such as sick leave, vacation, and holidays. You cannot generate revenue or invoices for indirect projects.

inflation start date The inflation start date for an asset specifies when inflation begins to impact an asset. The asset is adjusted for inflation from this date onward. The inflation start date is generally the same date as the date placed in service. You can, however, define an inflation start date that is different than the date placed in service. For example, if you enter an asset that is already in service and that has already been adjusted for inflation, you can set the inflation start date to an appropriate date to begin calculating new inflation adjustments in Oracle Assets.

intermediate value The parameter value, constant, or SQL statement result that is determined during the first step in the execution of an AutoAccounting rule.

internal organization See *organization*.

internal requisition See *internal sales order*, *purchase requisition*.

internal sales order A request within your company for goods or services. An internal sales order originates from an employee or from another process as a requisition, such as inventory or manufacturing, and becomes an internal sales order when the information is transferred from Purchasing to Order Management. Also known as **internal requisition** or **purchase requisition**.

invoice In Oracle Receivables and Oracle Cash Management, a document that you create in Receivables that lists amounts owed for the purchases of goods or services. This document also lists any tax, freight charges, and payment terms.

invoice In Oracle Payables and Oracle Assets, a document you receive from a supplier that lists amounts owed to the supplier for purchased goods or services. In Payables, you create an invoice online using the information your supplier provides on the document. Payments, inquiries, adjustments and any other transactions relating to a supplier's invoice are based upon the invoice information you enter.

invoice In Oracle Projects, a summarized list of charges, including payment terms, invoice item information, and other information that is sent to a customer for payment.

invoice burden schedule A burden schedule used for invoicing to derive the bill amount of an expenditure item. This schedule may be different from your revenue burden schedule, if you want to invoice at a different rate at which you want to accrue.

invoice currency The currency in which an Oracle Projects invoice is issued.

invoice date In Oracle Assets and Oracle Projects, the date that appears on a customer invoice. This date is used to calculate the invoice due date, according to the customer's payment terms.

invoice date In Oracle Receivables, the date an invoice is created. This is also the date that Oracle Projects prints on each invoice. Oracle Projects also use this date to determine the payment due date based on the payment terms you specify on the invoice.

invoice date In Oracle Payables, the date you assign to an invoice you enter in Oracle Projects. Oracle Projects uses this date to calculate the invoice due date, according to the payment terms for the invoice. The invoice date can be the date the invoice was entered or it can be a different date you specify.

invoice distribution line A line representing an expenditure item on an invoice. A single expenditure item may have multiple distribution lines for cost and revenue. An invoice distribution line holds an amount, account code, and accounting date.

invoice format The columns, text, and layout of invoice lines on an invoice.

Invoice Import An Oracle Payables process you use to import invoices from non-Oracle payables systems and to create invoices from Payables expense reports. You can also use Invoice Import to create invoices from expense reports in Oracle Projects.

When you initiate Invoice Import, Payables imports the required invoice or expense report information and automatically creates invoices with invoice distribution lines from the information. Payables also produces a report for all invoices or expense reports it could not import.

invoice item A single line of a project's draft invoice, formatted according to the project invoice formats.

invoice set For each given run of invoice generation for a project, if multiple agreements exist and multiple invoices are created, Oracle Projects creates the invoices within a unique set ID. You approve, release, and cancel all invoices within an invoice set.

invoice transaction type An Oracle Receivables transaction type that is assigned to invoices and credit memos that are created from Oracle Projects draft invoices.

invoice write-off A transaction that reduces the amount outstanding on an invoice by a given amount and credits a bad debt account.

invoicing The function of preparing a client invoice. Invoice generation refers to the function of creating the invoice. Invoicing is broader in the terms of creating, adjusting, and approving an invoice.

item type A term used by Oracle Workflow to refer to a grouping of all items of a particular category that share the same set of item attributes, used as a high level grouping for processes. For example, each Account Generator item type (e.g. FA Account Generator) contains a group of processes for determining how an Accounting Flexfield code combination is created. See also *item type attribute*

item type attribute A feature of a particular Oracle Workflow item type, also known as an item attribute. An item type attribute is defined as a variable whose value can be looked up and set by the application that maintains the item. An item type attribute and its value is available to all activities in a process.

Item Validation Organization The organization that contains your master list of items. You define this organization by setting the OE: Item Validation Organization profile option. See also *organization*.

job A name for a set of duties to which an employee may be assigned. You create jobs in Oracle Projects by combining a job level and a job discipline using your job key flexfield structure. For example, you can combine the job level *Staff* with the job discipline *Engineer* to create the job *Staff Engineer*.

job billing title A job billing title, which differs from a job title, that may appear on an invoice.

job discipline A categorization of job vocation, used with Job Level to create a job title. For example, a job discipline may be Engineer, or Consultant.

job level A categorization of job rank, used with Job Discipline to create a job title. For example, a job level may be Staff, or Principal.

job title In Oracle Projects, a unique combination of job level and job discipline that identifies a particular job.

job title In Oracle Receivables, a brief description of your customer contact's role within their organization.

journal entry batch A method used to group journal entries according to your set of books and accounting period. When you initiate the transfer of invoice or payment information to your general ledger for posting, Oracle Projects transfers the necessary information to create journal entry batches for the information you transfer. Journal Import in General Ledger uses the information to create a journal entry batch for each set of books and accounting period.

You can name your journal entry batches the way you want for easy identification in your general ledger. Oracle Projects attaches the journal entry category, date, and time of transfer to your batch name so that each name is unique. If you choose not to enter your own batch name when you transfer posting information, Oracle Projects uses the journal entry category, date, and time of transfer.

journal entry category In Oracle Assets and Oracle Projects, a category used to indicate the purpose or nature of your journal entry. General Ledger associates each of your journal entry headers with a journal entry category. Journal entry categories specify what kind of transaction the journal entry represents.

journal entry category In Oracle Payables, a category used to indicate the purpose or nature of your journal entry. General Ledger associates each of your journal entry headers with a journal entry category. There are three journal entry categories in Oracle Projects if you use the accrual basis accounting method: Invoices, Payments, and All (both Invoices and Payments). If you use the cash basis accounting method, Oracle Projects only assigns the Payment journal entry category to your journal entries.

journal entry category In Oracle General Ledger, a category in which describes the purpose or type of journal entry. Standard journal entry categories include accruals, payments, and vouchers.

journal entry header A method used to group journal entries by currency and journal entry category within a journal entry batch. When you initiate the transfer of invoices or payments to your general ledger for posting, Oracle Projects transfers the necessary information to create journal entry headers for the information you transfer. Journal Import in General Ledger uses the information to create a journal entry header for each currency and journal entry category in a journal entry batch. A journal entry batch can have multiple journal entry headers.

journal entry lines Each journal entry header contains one or more journal entry lines. The lines are the actual journal entries that your general ledger posts to update account balances. The number and type of lines in a journal entry header depend on the volume of transactions, frequency of transfer from Oracle Projects, and your method of summarizing journal entries from Oracle Projects.

journal entry source In Oracle Assets, Oracle Payables, and Oracle Projects, an indicator from which feeder system your journal entries originate, such as Oracle Projects. General Ledger associates each of your journal entries with one journal entry source. This allows you to group related journal entry transactions for reporting and analysis in your general ledger.

journal entry source In Oracle General Ledger, the source by which Oracle Projects identifies and differentiates the origin of journal entries. Standard journal entry sources include payables, payroll, personnel, and receivables.

Journal Import A General Ledger program that creates journal entries from transaction data stored in the General Ledger GL_INTERFACE table. Journal entries are created and stored in GL_JE_BATCHES, GL_JE_HEADERS, and GL_JE_LINES.

key flexfield In Oracle General Ledger, an Oracle Applications feature you use to build custom fields in which you can enter and display information relating to your business. The General Ledger Accounting Flexfield is a key flexfield.

key flexfield In Oracle Projects, an intelligent key that uniquely identifies an application entity. Each key flexfield segment has a name you assign, and a set of valid values you specify. Each value has a meaning you also specify. You use this Oracle Applications feature to build custom fields used for entering and displaying information relating to your business. The Accounting Flexfield in your Oracle General Ledger application is an example of a key flexfield used to uniquely identify a general ledger account. An Oracle Applications feature you use to build custom fields used for entering and displaying information relating to your business. Oracle Projects uses the following key flexfields:

- Accounting Flexfield
- Category Flexfield
- Location Flexfield
- Asset Key Flexfield

key flexfield In Oracle Payables, an Oracle Applications feature you use to build custom fields used for entering and displaying information relating to your business. Oracle Projects uses the following key flexfields:

- Accounting Flexfield
- System Items Flexfield

key flexfield In Oracle Receivables, an Oracle Applications feature you use to build custom fields used for entering and displaying information relating to your business. Oracle Projects uses the following key flexfields:

- Accounting Flexfield
- Sales Tax Location Flexfield
- System Items Flexfield
- Territory Flexfield

key flexfield segment One of up to 30 different sections of your key flexfield. You separate segments from each other by a symbol you choose (such as –, / or \.). Each segment can be up to 25 characters long. Each key flexfield segment typically captures one element of your business or operations structure, such as company, division, region, or product for the Accounting Flexfield and item, version number, or color code for the Item Flexfield.

key flexfield segment value A series of characters and a description that provide a unique value for this element, such as 0100, Eastern region, or V20, Version 2.0.

key member An employee who is assigned a role on a project. A project key member can view and update project information and expenditure details for any project to which they are assigned. Typical key member types include Project Manager and Project Coordinator.

labor cost The cost of labor expenditure items.

labor cost multiplier A multiplier that is assigned to an indirect project task and applied to labor costs to determine the premium cost for overtime or other factors.

labor cost rate The hourly raw cost rate for an employee. This cost rate does not include overhead or premium costs.

labor invoice burden schedule A burden schedule used to derive invoice amounts for labor items.

labor multiplier A multiplier that is assigned to a project or task, and is used to calculate the revenue and / or bill amount for labor items by applying the multiplier to the raw cost of the labor items.

labor revenue burden schedule A burden schedule used to derive revenue amounts for labor items.

legal entity An organization that represents a legal company for which you prepare fiscal or tax reports. You assign tax identifiers and other relevant information to this entity.

lamp A one-word message that Oracle Applications displays in the message line of any window to notify you that a particular feature is available for a particular field. A single word message that appears on the message line to indicate whether a function such as <Insert> or <List> is available for the current field.

listing An organized display of Oracle Applications information, similar to a report, but usually showing setup data as opposed to transaction data.

lookup code The internal name of a value defined in an Oracle Workflow lookup type. See also *lookup type*.

lookup type An Oracle Workflow predefined list of values. Each value in a lookup type has an internal and a display name. See also *lookup code*.

Mass Additions In Oracle Assets, a feature that allows you to copy asset information from another system, such as Oracle Payables. Create Mass Additions for Oracle Assets creates mass addition lines for potential assets. You can review these mass addition lines in the Prepare Mass Additions window, and actually create an asset from the mass addition line by posting it to Oracle Assets.

Mass Additions In Oracle Payables, invoice distribution lines that you transfer to Oracle Assets for creating assets. Oracle Projects only creates mass additions for invoice distribution lines that are marked for asset tracking. Invoice distribution lines distributed to Asset Accounting Flexfields are automatically marked for asset tracking. Oracle Assets does not convert the mass additions to assets until you complete all of the required information about the asset and post it in Oracle Assets.

master–detail relationship A master–detail relationship is an association between two blocks—a master block and its detail block. When two blocks are linked by a master–detail relationship, the detail block displays only those records that are associated with the current (master) record in the master block, and querying between the two blocks is always coordinated. Master and detail blocks can often appear in the same window or they can each appear in separate windows.

matching In Oracle Cash Management, the process where batches or detailed transactions are associated with a statement line based on the transaction number, amount, currency and other variables, taking Cash Management system parameters into consideration. In Cash Management, matching can be done manually or automatically. .

matching In Oracle Payables and Oracle Assets, the process of comparing purchase order, invoice, and receiving information to verify that ordering, billing, and receiving information is consistent within accepted tolerance levels. Oracle Projects uses matching to control payments to suppliers. You can use the matching feature in Oracle Projects if you have Purchasing or another purchasing system. Oracle Projects supports two–, three–, and four–way matching.

message line A line on the bottom of a window that displays helpful hints or warning messages when you encounter an error.

multi–org See *multiple organizations*.

multiple organizations The ability to define multiple organizations and the relationships among them within a single installation of Oracle Applications. These organizations can be sets of books, business groups, legal entities, operating units, or inventory organizations.

Multiple Reporting Currencies An Oracle General Ledger feature that allows you to report in your functional currency and in one or more foreign currencies.

node An instance of an activity in an Oracle Workflow process diagram as shown in the Process window of Oracle Workflow Builder. See also *process*.

non–labor invoice burden schedule A burden schedule used to derive invoice amounts for non–labor items.

non–labor resource An implementation–defined asset or pool of assets. For example, you can define a non–labor resource with a name such as *PC* to represent multiple personal computers your business owns.

non–labor revenue burden schedule A burden schedule used to derive revenue amounts for non–labor items.

non–revenue sales credit Sales credit you assign to your salespeople that is not associated with your invoice lines. This is sales credit given in excess of your revenue sales credit. See also *revenue sales credit*.

offsets Reversing transactions used to balance allocation transactions with the source or other project.

one time billing hold A type of hold that places expenditure items and events on billing hold for a particular invoice; when you release that invoice, the items are billed on the next invoice.

operating unit An organization that partitions data for subledger products (AP, AR, PA, PO, OE). It is roughly equivalent to a single pre-Multi-Org installation.

operator A mathematical symbol you use to indicate the mathematical operation in your calculation.

option group An option group is a set of option buttons. You can choose only one option button in an option group at a time, and the option group takes on that button's value after you choose it. An option button or option group is also referred to as a radio button or radio group, respectively.

organization

Internal organizations are divisions, groups, cost centers or other organizational units in a company. External organizations can include the contractors your company employs. Organizations can be used to demonstrate ownership or management of functions such as projects and tasks, non-labor resources, and bill rate schedules. See also *Item Validation Organization*.

organization hierarchy An organizational hierarchy illustrates the relationships between your organizations. A hierarchy determines which organizations are subordinate to other organizations. The topmost organization of an organization hierarchy is generally the business group.

organization structure See *organization hierarchy*.

original budget The budget amounts for a project at the first successful baselining of the project.

Overtime Calculation Program A program that Oracle Projects provides to determine which kind of overtime to award an employee based on the employee's compensation rule and hours worked. If your company uses this automatic overtime calculation feature, you may need to modify the program based on the overtime requirements of your business.

overtime cost The currency amount over straight time cost that an employee is paid for overtime hours worked. Also referred to as Premium Cost.

PA Date The end date of the PA Period in which costs are distributed, revenue is created, or an invoice is generated. This date is determined from the open or future PA Period on or after the latest date of expenditure item dates and event completion dates included in a cost distribution line, revenue, or an invoice.

PA Period See *Project Accounting Period*.

PA Period Type The Period Type as specified in the PA implementation options for Oracle Projects to copy project accounting periods. Oracle Projects uses the periods in the PA Period Type to populate each Operating Unit's PA periods. PA periods are mapped to GL periods which are used when generating accounting transactions. PA periods drive the project summary for Project Status Inquiry. You define your accounting periods in the Operating Unit's Set of Books Calendar.

parallel allocation A set of allocation rules that carries out the rules in an autoallocation set without regard to the outcome of the other rules in the set. See also *autoallocation set*, *step-down allocation*.

parameter See *report parameter*.

parent request A concurrent request that submits other concurrent requests (child requests). For example, a report set is a parent request that submits reports and / or programs (child requests).

partial matching A condition where the invoice quantity is less than the quantity originally ordered, in which case you are matching only part of a purchase order shipment line. See also *matching*, *complete matching*.

pay type See *compensation rule*.

pop-up window An additional window that appears on an Oracle Applications form when your cursor enters a particular field.

poplist A poplist lets you choose a single value from a predefined list. To choose a value, press your left mouse button while on the poplist icon to display the list of choices, then drag your mouse through the list to the desired value. Release your mouse button to choose the value you highlight and display it in the poplist field. A poplist is also sometimes known as a list.

posting The process of updating account balances in your general ledger from journal entries. Oracle Projects uses the term posting to describe the process of transferring posting information to your general ledger. When you initiate posting in Oracle Projects, Oracle Projects transfers your invoice and payment transactions and sets the status of the payments and invoices to posted. You must use your general ledger to create journal entries and post the journal entries to update your account balances. See also *Journal Import*.

premium cost See *overtime cost*.

prepayment A payment you make to a supplier in anticipation of his provision of goods or services. A prepayment may also be an advance you pay to an employee for anticipated expenses.

In Payables, a prepayment is a type of invoice that you can apply to an outstanding invoice or employee expense report to reduce the amount of the invoice or expense report. You must approve the prepayment and fully pay the prepayment before you can apply the prepayment.

primary set of books The set of books you use to manage your business. You can choose accrual or cash basis as the accounting method for your primary set of books.

process A set of Oracle Workflow activities that need to be performed to accomplish a business goal. See also *Account Generator*, *process activity*, *process definition*.

process activity An Oracle Workflow process modelled as an activity so that it can be referenced by other processes; also known as a subprocess. See also *process*.

process cycle The planned schedule for batch processing of costs, revenue, and invoices, according to your company's scheduling requirements. See *streamline request*.

process definition An Oracle Workflow process as defined in the Oracle Workflow Builder. See also *process*.

process responsibility type An implementation-defined name to which a group of reports and processes are assigned. This group of reports and processes is then assigned to an Oracle Projects responsibility. A process responsibility type gives a user access to Oracle Projects reports and programs appropriate to that user's job. For example, the process responsibility type Data Entry could be a set of reports used by data entry clerks. See *responsibility*.

profile option A set of changeable options that affect the way your applications run. In general, profile options can be set at one or more of the following levels: site, application, responsibility, and user. Refer to the Profile Option appendix in the *Oracle Projects User's Guide* for more information.

project A unit of work that can be broken down into one or more tasks. A project is the unit of work for which you specify revenue and billing methods, invoice formats, a managing organization and project manager, and bill rate schedules. You can charge costs to a project, and you can generate and maintain revenue, invoice, unbilled receivable, and unearned revenue information for a project.

Project Accounting Period An implementation-defined period against which project performance may be measured. Also referred to as *PA Periods*. You define project accounting periods to track project accounting data on a periodic basis by assigning a start date, end date, and closing status to each period. Typically, you define project accounting periods on a weekly basis, and your general ledger periods on a monthly basis.

Project Burdening Organization Hierarchy

The organization hierarchy version that Oracle Projects uses to compile burden schedules. Each business group must designate one and only one version of an organization hierarchy as its Project Burdening Organization Hierarchy. (Note: In Oracle Projects Implementation Options, each operating unit is associated with an organization hierarchy and version for project setup, invoice level processing, and project reporting. The Project Burdening Organization Hierarchy selected for the business group does not have to match the hierarchy version in the Implementation Options.).

project chargeable employees In a multiple organization installation, employees included as labor resource pool to a project. This includes all employees, as defined in Oracle Human Resources, who belong to the business group associated with the project operating unit.

project currency The currency in which transactions are billed (unless overridden during the billing process). Also, the currency in which project amounts are summarized for project summary reporting.

project funding An allocation of revenue from an agreement to a project or task.

project operating unit The operating unit within which the project is created.

project/task organization The Organization that owns the project or task. This can be any organization in the LOV (list of values) for the project setup. The Project / Task Organization LOV contains organizations of the Project / Task Organization Type in the Organization Hierarchy and Version below the Start Organization. You specify your Start Organization and Version in the Implementation Options window.

project role The responsibility or position assigned to an employee on a project.

project role type An implementation-defined classification of the role or responsibility that an employee can have on a project. When you define project role types, you can determine whether an employee assign to a particular project role type can query labor costs.

project status An implementation-defined classification of the status of a project. Typical project statuses are Active and Closed.

project type A template defined for your implementation. The template consists of project attributes such as the project type class (contract, indirect, or capital), the default revenue distribution rule and bill rate schedules, and whether the project burdens costs. For example, you can define a project type with a name such as *Time and Materials* for all projects that are based on time and materials contracts.

project type class An additional classification for project types that indicates how to collect and track costs, quantities, and, in some cases, revenue and billing. Oracle Projects predefines three project type classes: *Indirect*, *Contract*, or *Capital*. For example, you use an Indirect project type to collect and track project costs for overhead activities, such as administrative and overhead work, marketing, and bid and proposal preparation.

Project/customer relationship An implementation-defined classification of the relationship between a project and a customer. Project / Customer Relationships help you manage projects that involve multiple clients by specifying the various relationships your customers can have with a project. Typical relationships include Primary or Non-Paying.

Project/Task Alias A user-defined short name for a project or project / task combination used to facilitate online timecard and expense report entry.

Project/Task Organization The Organization that owns the project or task.

protection level In Oracle Workflow, a numeric value ranging from 0 to 1000 that represents who the data is protected from for modification. When workflow data is defined, it can either be set to customizable (1000), meaning anyone can modify it, or it can be assigned a protection level that is equal to the access level of the user defining the data. In the latter case, only users operating at an access level equal to or lower than the data's protection level can modify the data. See also *Account Generator*.

provisional schedule A burden schedule of estimated burden multipliers that are later audited to determine the actual rates. You apply actual rates to provisional schedules by replacing the provisional multipliers with actual multipliers. Oracle Projects processes adjustments that account for the difference between the provisional and actual calculations.

purchase order (PO) In Oracle General Ledger and Oracle Projects, a document used to buy and request delivery of goods or services from a supplier.

purchase order (PO) In Oracle Assets, the order on which the purchasing department approved a purchase.

purchase order distribution Each purchase order shipment consists of one or more purchase order distributions. A purchase order distribution consists of the Accounting Flexfield information Payables uses to create invoice distributions.

purchase order line An order for a specific quantity of a particular item at a negotiated price. Each purchase order in Purchasing can consist of one or more purchase order lines.

purchase order requisition line Each purchase order line is created from one or more purchase order requisition lines. Payables creates purchase order requisition lines from individual requisitions.

purchase order shipment A scheduled delivery of goods or services from a purchase order line to a specified location. Each purchase order line can have one or more purchase order shipments.

Oracle Projects defines a purchase order shipment by a purchase order line location you enter in Payables. When you perform matching during invoice entry, you can match an invoice to one or more shipments.

purchase requisition An internal request for goods or services. A requisition can originate from an employee or from another process, such as inventory or manufacturing. Each requisition can include many lines, generally with a distinct item on each requisition line. Each requisition line includes at least a description of the item, the unit of measure, the quantity needed, the price per item, and the Accounting Flexfield you are charging for the item. Also known as **internal requisition**. See also *internal sales order*.

purchasing site A supplier site from which you order goods or services. You must enter at least one purchasing site before Purchasing will allow you to enter a purchase order.

query A search for applications information that you initiate using an Oracle Applications window.

raw costs Costs that are directly attributable to work performed. Examples of raw costs are salaries and travel expenses.

receipt currency The currency in which an expense report item originates.

record A record is one occurrence of data stored in all the fields of a block. A record is also referred to as a row or a transaction, since one record corresponds to one row of data in a database table or one database transaction.

region A collection of logically-related fields set apart from other fields by a dashed line that spans a block. Regions help to organize a block so that it is easier to understand.

reimbursement currency The currency in which an employee chooses to be reimbursed for an expense report. See also *transaction currency*

related transaction Additional transactions that are created for labor transactions using the Labor Transaction Extension. All related transactions are associated with a *source transaction* and are attached to the expenditure item ID of the source transaction. You can identify and process the related transactions by referring to the expenditure item ID of the source transaction. Using labor transaction extensions, you can create, identify, and process the related transactions along with the source transaction.

released date The date on which an invoice and its associated revenue is released.

remit to addresses The address to which your customers remit their payments.

report In Oracle Assets, Oracle Payables, Oracle Receivables, and Oracle Projects, an organized display of Oracle Applications information. A report can be viewed online or sent to a printer. The content of information in a report can range from a summary to a complete listing of values.

report In Oracle General Ledger, a combination of at least a row set and column set, and optionally a content set, display group, row order, and runtime options, such as currency and override segment name, that you can define and name. When you request financial statements, you can enter this name, and Oracle Projects automatically enters the report components and runtime options for you. You simply specify the accounting period. Oracle Projects automatically enters the rest.

resource A user-defined group of employees, organizations, jobs, suppliers, expenditure categories, revenue categories, expenditure types, or event types for purposes of defining budgets or summarizing actuals.

report option See *report parameter*.

report parameter In Oracle Assets, Oracle General Ledger, and Oracle Receivables, options that let you sort, format, select, and summarize the information in your reports.

report parameter In Oracle Payables, a variable you use to restrict information in a report, or determine the format of the report. For example, you may want to limit your report to the current month, or display information by supplier number instead of supplier name. Most standard reports in Oracle Projects that you can submit manually have a set of report parameters.

report security group A feature that helps your system administrator control your access to reports and programs. Your system administrator defines a report security group which consists of a group of reports and /or programs and assigns a report security group to each responsibility that has access to run reports using Standard Report Submission. When you submit reports using Standard Report Submission, you can only choose from those reports and programs in the report security group assigned to your responsibility.

report set A group of reports that you submit at the same time to run as one transaction. A report set allows you to submit the same set of reports regularly without having to specify each report individually. For example, you can define a report set that prints all of your regular month-end management reports.

responsibility In Oracle Projects, Oracle Payables, and Oracle Receivables, a level of authority in an application. Each responsibility lets you access a specific set of Oracle Applications windows, menus, reports, and data to fulfill your role in an organization. Several users can share the same responsibility, and a single user can have multiple responsibilities.

responsibility In Oracle Assets and Oracle General Ledger, a level of authority within Oracle Projects. Each responsibility provides a user with access to a menu and a set of books. You can assign one or more responsibilities to each user. Responsibilities let you control security in Oracle Projects.

responsibility type See *process responsibility type*.

result code In Oracle Workflow, the internal name of a result value, as defined by the result type. See also *result type*, *result value*.

result type In Oracle Workflow, the name of the lookup type that contains an activity's possible result values. See also *result code*, *result value*.

result value In Oracle Workflow, the value returned by a completed activity, such as *Approved*. See also *result code*, *result type*.

revenue In Oracle Projects, the amounts recognized as income or expected billing to be received for work on a project.

revenue accrual The function of calculating and distributing revenue.

revenue authorization rule A configurable criterion that, if enabled, must be met before a project can accrue revenue. For example, an active mandatory revenue authorization rule states that a project manager must exist on a project before that project can accrue revenue. Revenue authorization rules are associated with revenue distribution rules. See also *revenue distribution rule*.

revenue budget The estimated revenue amounts at completion of a project. Revenue budget amounts can be summary or detail.

revenue burden schedule A burden schedule used for revenue accrual to derive the revenue amount for an expenditure item. This schedule may be different from your invoice burden schedule, if you want to accrue revenue at a different rate than you want to invoice.

revenue category An implementation-defined grouping of expenditure types by type of revenue. For example, a revenue category with a name such as *Labor* refers to labor revenue.

revenue credit Credit that an employee receives for project revenue. See *revenue sales credit*.

revenue distribution rule A specific combination of revenue accrual and invoicing methods that determine how Oracle Projects generates revenue and invoice amounts for a project. See *revenue authorization rule*.

revenue item A single line of a project's revenue, containing event or expenditure item revenue summarized by top task and revenue category or event.

revenue sales credit Sales credit you assign to your salespeople that is based on your invoice lines. The total percentage of all revenue sales credit must be equal to 100% of your invoice lines amount. Also known as **quota sales credits**. See also *non-revenue sales credit*, *sales credit*.

revenue write-off An event type classification that reduces revenue by the amount of the write-off. You cannot write-off an amount that exceeds the current unbilled receivables balance on a project. See also *invoice write-off*.

root window The root window displays the main menu bar and tool bar for every session of Oracle Applications. In Microsoft Windows, the root window is titled "Oracle Applications" and contains all the Oracle Applications windows you run. In the Motif environment, the root window is titled "Toolbar" because it displays just the toolbar and main menu bar.

row One occurrence of the information displayed in the fields of a block. A block may show only one row of information at a time, or it may display several rows of information at once, depending on its layout. The term "row" is synonymous with the term "record".

sales credit Credits that you assign to your salespeople when you enter orders, invoices, and commitments. Credits can be either quota or non-quota and can be used in determining commissions. See also *non-revenue sales credit*, *revenue sales credit*.

sales tax A tax collected by a tax authority on purchases of goods and services. The supplier of the good or service collects sales taxes from its customers (tax is usually included in the invoice amount) and remits them to a tax authority. Tax is usually charged as a percentage of the price of the good or service. The percentage rate usually varies by authority and sometimes by category of product. Sales taxes are expenses to the buyer of goods and services.

salesperson A person who is responsible for the sale of products or services. Salespeople are associated with orders, returns, invoices, commitments, and customers. You can also assign sales credits to your salespeople.

schedule fixed date The date used to freeze bill rate or burden schedules for a project or task. You enter a fixed date to specify that you want to use particular rates or multipliers as of that date. You do not use schedule fixed dates if you want to use the current effective rates or multipliers for a particular schedule.

scrollable region A region whose contents are not entirely visible in a window. A scrollable region contains a horizontal or vertical scroll bar so that you can scroll horizontally or vertically to view additional fields hidden in the region.

segment A single sub-field within a flexfield. You define the structure and meaning of individual segments when customizing a flexfield.

service type An implementation-defined classification of the type of work performed on a task.

set of books A financial reporting entity that uses a particular chart of accounts, functional currency and accounting calendar. You must define at least one set of books for each business location.

soft limit The default option for an agreement that generates a warning when you accrue revenue or generate invoices beyond the amount allocated to a project or task by the agreement, but does not prevent you from running these processes. See also *hard limit*.

shorthand flexfield entry A quick way to enter key flexfield data using shorthand aliases (names) that represent valid flexfield combinations or patterns of valid segment values. Your organization can specify flexfields that will use shorthand flexfield entry and define shorthand aliases for these flexfields that represent complete or partial sets of key flexfield segment values.

shorthand window A single-segment customizable field that appears in a pop-up window when you enter a key flexfield. The shorthand flexfield pop-up window only appears if you enable shorthand entry for that particular key flexfield.

sign-on An Oracle Applications username and password that allows you to gain access to Oracle Applications. Each sign-on is assigned one or more responsibilities.

source pool The combination of all the source amounts defined by an allocation rule. See also *allocation rule*

source transaction For related transactions, the identifying source transaction from which the related items are created.

spot exchange rate A daily exchange rate you use to perform foreign currency conversions. The spot exchange rate is usually a quoted market rate that applies to the immediate delivery of one currency for another.

Standard Request Submission A standard interface in Oracle Applications in which you run and monitor your application's reports and other processes.

start organization An organization that defines a set which includes itself and all subordinate organizations in the organization hierarchy. When you choose a start organization as a report parameter, all organizations below the start organization are included in the report.

status line A status line appearing below the message line of a root window that displays status information about the current window or field. A status line can contain the following: ^ or v symbols indicate previous records before or additional records following the current record in the current block; **Enter Query** indicates that the current block is in Enter Query mode, so you can specify search criteria for a query; **Count** indicates how many records were retrieved or displayed by a query (this number increases with each new record you access but does not decrease when you return to a prior record); the **<Insert>** indicator or *lamp* informs you that the current window is in insert character mode; and the **<List>** lamp appears when a list of values is available for the current field.

step-down allocation In Oracle Projects, a set of allocation rules that carries out the rules (steps) an autoallocation set serially, in the sequence specified in the set. Usually the result of each step will be used in the next step. Oracle Workflow controls the flow of the autoallocations set. See also *autoallocation set*, *parallel allocation*

straight time cost The monetary amount that an employee is paid for straight time (regular) hours worked.

streamline process See *streamline request*.

streamline request A process that runs multiple Oracle Projects processes in sequence. When using streamline processing, you can reschedule your streamline requests by setting rescheduling parameters. Rescheduling parameters allow you to configure your processes to run automatically, according to a defined schedule. When you reschedule a process, the concurrent manager submits another concurrent request with a status of *Pending*, and with a start date according to the parameters you define.

structure A structure is a specific combination of segments for a key flexfield. If you add or remove segments, or rearrange the order of segments in a key flexfield, you get a different structure.

subtask A hierarchical unit of work. Subtasks are any tasks that you create under a parent task. Child subtasks constitute the lowest level of your work breakdown structure; where Oracle Projects looks when processing task charges and for determining task revenue accrual amounts. See *task*.

summarization Processing a project's cost, revenue, commitment, and budget information to be displayed in the Project, Task, and Resource Project Status windows. You must distribute costs for any expenditure items, accrue and release any revenue, create any commitments, and baseline a budget for your project before you can view summary project amounts. Formerly known as **accumulation**.

supplier A business or individual that provides goods or services or both in return for payment.

supplier invoice An external supplier's invoice entered into Oracle Payables.

system linkage An obsolete term. See *expenditure type class*.

tablespace The area in which an Oracle database is divided to hold tables.

target A project, task, or both that receives allocation amounts, as specified by an allocation rule. See also *source pool*

task A subdivision of project work. Each project can have a set of top level tasks and a hierarchy of subtasks below each top level task. See also *Work Breakdown Structure*, *subtask*.

task organization The organization that is assigned to manage the work on a task.

task service type See *service type*.

tax authority A governmental entity that collects taxes on goods and services purchased by a customer from a supplier. In some countries, there are many authorities (e.g. state, local and federal governments in the US), while in others there may be only one. Each authority may charge a different tax rate. Within Oracle Projects, tax authority consists of all components of your tax structure. For example: California.San Mateo.Redwood Shores for State.County.City. Oracle Projects adds together the tax rates for all of these locations to determine a customer's total tax liability for an invoice.

tax codes Codes to which you assign sales tax or value-added tax rates. Oracle Receivables lets you choose state codes as the tax code when you define sales tax rates for the United States. (Receivables Lookup)

Time and Materials (T&M) A revenue accrual and billing method that calculates revenue and billings as the sum of the amounts from each individual expenditure item. The expenditure item amounts are calculated by applying a rate or markup to each item.

timecard A weekly submission of labor expenditure items. You can enter timecards online, or as part of a pre-approved batch.

toolbar The toolbar is a collection of iconic buttons that each perform a specific action when you choose it. Each toolbar button replicates a commonly-used menu item. Depending on the context of the current field or window, a toolbar button can be enabled or disabled. You can display a hint for an enabled toolbar button on the message line by holding your mouse steadily over the button. The toolbar generally appears below the main menu bar in the root window.

transaction currency The currency in which a transaction originally takes place. For processing purposes, the reimbursement currency in an expense report is the transaction currency.

transferred date The date on which you transfer costs, revenue, and invoices to other Oracle Applications.

transition In Oracle Workflow, the relationship that defines the completion of one activity and the activation of another activity within a process. In a process diagram, the arrow drawn between two activities represents a transition. See also *activity*, *Workflow Engine*.

unbilled receivables The amount of open receivables that have not yet been billed for a project. Oracle Projects calculates unbilled receivables using the following formula: $(Unbilled\ Receivables = Revenue\ Accrued - Amount\ Invoice)$

unearned revenue Revenue received and recorded as a liability or revenue before the revenue has been earned by providing goods or services to a customer. Oracle Projects calculates unearned revenue using the following formula: $(Unearned\ Revenue = Amount\ Invoiced - Revenue\ Accrued)$

unit of measure In Oracle Assets, a label for the production quantities for a units of production asset. The unit used to measure production amounts. Each unit of measure belongs to a unit of measure class.

unit of measure In Oracle Projects, a unit of measure records quantities or amounts of an expenditure item. For example, if you specify the unit *Miles* when you define an expenditure type for personal car use, Oracle Projects calculates the cost of using a personal car by mileage.

unit of measure

UOM See *unit of measure*.

usage See *non-labor resource*.

usage cost rate override The cost rate assigned to a particular non-labor resource and non-labor organization which overrides the rate assigned to its expenditure type.

usage logs Usage logs record the utilization of company assets on projects as the asset is used.

user profile A set of changeable options that affect the way your applications run. You can change the value of a user profile option at any time.

value Data you enter in a parameter. A value can be a date, a name, or a code, depending on the parameter.

value set A group of values and related attributes you assign to an account segment or to a descriptive flexfield segment. Values in each value set have the same maximum length, validation type, alphanumeric option, and so on.

vendor See *supplier*.

window A box around a set of related information on your screen. Many windows can appear on your screen simultaneously and can overlap or appear adjacent to each other. Windows can also appear embedded in other windows. You can move a window to a different location on your screen.

window title A window title at the top of each window indicates the name of the window, and occasionally, context information pertinent to the content of the window. The context information, contained in parenthesis, can include the organization, set of books, or business group that the window contents is associated with.

WIP See *work in process*.

work breakdown structure (WBS) The breakdown of project work into tasks. These tasks can be broken down further into subtasks, or hierarchical units of work.

work in process An item in various phases of production in a manufacturing plant. This includes raw material awaiting processing up to final assemblies ready to be received into inventory.

work site The customer site where project or task work is performed.

Workflow Engine The Oracle Workflow component that implements a workflow process definition. The Workflow Engine manages the state of all activities, automatically executes functions, maintains a history of completed activities, and detects error conditions and starts error processes. The Workflow Engine is implemented in server PL/SQL and activated when a call to an engine API is made. See also *Account Generator, activity, function, item type*.

write-off See *invoice write-off, revenue write-off*.

write-on An event type classification that causes revenue to accrue and generates an invoice for the amount of the write-on.

Zoom A forms feature that is obsolete in GUI versions of Oracle Applications.

Index

A

account generator

- accounting transactions, 13 – 51
- AutoAccounting, and, 17 – 323 to 17 – 330
- expense report, 17 – 311
- functions
 - segment lookup set value, 17 – 320
 - SQL, 17 – 326
- Oracle Payables, for, 17 – 303
- Oracle Purchasing, for, 17 – 302
- overview, 17 – 302
- processes
 - backing up, 17 – 304, 17 – 306
 - renaming, 17 – 322
 - segment lookup value, 17 – 320
 - using FlexBuilder rules, 17 – 306
 - viewing attributes, 17 – 316
- purging runtime data, 17 – 322
- setting up, 17 – 306, 17 – 322
- supplier invoice, 17 – 306
- testing, 17 – 320

accounting flexfields. *See* sets of books

accounting lines, viewing, 4 – 49, 8 – 43

accounting transactions

- capital project costs, 7 – 36
- costs and revenue, 13 – 15
- dates for, 15 – 3 to 15 – 10
- distribution lines, 13 – 51
- expense reports, 13 – 26
- invoices, 13 – 64

Accounts Payable. *See* Oracle Payables

Accounts Receivable. *See* Oracle Receivables

Activity Management Gateway

- See also* transaction import
- data integrity controls, 14 – 4
- function security for, C – 11
- overview, 14 – 2
- product source, 2 – 35
- profile options, 18 – 46
- setting up for Oracle Projects integration, 18 – 71
- Source Products window, 14 – 5
- source reference, 2 – 35

activity-based costing. *See* mass allocations

actuals

- amounts, cost and revenue, 9 – 11
- copying to budget amounts, 3 – 29

addresses

- employee, 17 – 51
- invoice, bill-to and shipping, 8 – 54

adjustments

- assets lines, 7 – 31
- billing. *See* adjustments, invoices
- burden transactions, 4 – 34
- cancelling invoices, 8 – 65
- capital project costs, 7 – 31
- credit memos, 8 – 66
- currency attributes, 4 – 31
- expenditure items
 - converted, 4 – 32
 - marking, 4 – 37
 - multi-currency, 4 – 33
 - overview, 4 – 26
 - types of, 4 – 27 to 4 – 31
 - viewing, 4 – 47
- expense reports, 13 – 36
- interfacing to other products, 4 – 41

- invoices, 4 – 44, 8 – 64, 8 – 65
- mass, 4 – 55
- overtime, 18 – 26
- processing, 4 – 38
- purchase orders, 13 – 55
- requisitions, 13 – 55
- restrictions, 4 – 26
- revenue, 8 – 40
- reversals and, 4 – 34
- supplier invoices, 13 – 55
- advances, 13 – 34
- ADW (Applications Data Warehouse). *See*
Oracle Project Analysis Collection Pack
Implementation Guide
- agreements
 - accruing revenue against, 8 – 34
 - Agreement window, 8 – 6, 8 – 10
 - copying, 2 – 33
 - entering, 8 – 10
 - interfacing to Receivables, 13 – 65
 - types, 10 – 4
 - types of, 17 – 135
 - viewing funding history, 8 – 12
- allocations
 - See also* autoallocations
 - amount class, 6 – 10
 - basis
 - interaction with targets, 6 – 12
 - methods, 6 – 6, 6 – 15
 - cross charge and, 6 – 12
 - extensions
 - basis, 19 – 137
 - dependencies, 19 – 140
 - descriptive flexfield, 19 – 138
 - offset projects and tasks, 19 – 135
 - offset tasks, 19 – 133
 - source, 19 – 129
 - target, 19 – 131
 - incremental and full
 - and system performance, 6 – 26
 - example, 16 – 3 to 16 – 7
 - overview, 6 – 26
 - mass, 5 – 46
 - missing amounts, 6 – 26
 - offsets, defining, 6 – 14
 - overview, 6 – 2
 - precedence of, 6 – 12, 6 – 13, 6 – 19
 - previous amounts, 6 – 26
 - rules
 - copying, 6 – 17
 - defining, 6 – 5
 - deleting or modifying, 6 – 18
 - naming, 6 – 5
 - overview, 6 – 4
 - viewing, 6 – 17
 - runs
 - creating, 6 – 20
 - releasing, 6 – 21
 - reversing, 6 – 24
 - viewing, 6 – 22
 - sources
 - defining, 6 – 9
 - GL accounts, 6 – 14
 - targets
 - defining, 6 – 12
 - interaction with basis, 6 – 12, 6 – 13
 - transactions (expenditure items)
 - generating, 6 – 19, 11 – 25
 - viewing, 6 – 24
 - troubleshooting, 6 – 50
 - viewing
 - rules, 6 – 17
 - runs, 6 – 22
 - transactions (expenditure items), 6 – 22, 6 – 24
- AMG. *See* Activity Management Gateway
- amount class, 6 – 10
- APIs. *See* Activity Management Gateway
- application programming interface. *See*
Activity Management Gateway
- Applications Data Warehouse. *See* Oracle
Projects Analysis Collection Pack
Implementation Guide
- asset lines
 - See also* assets
 - adjusting, 7 – 27, 7 – 31, 7 – 32
 - changing asset assignment, 7 – 28
 - creating for Oracle Assets, 7 – 23
 - extension to assign assets to, 19 – 144 to 19 – 146
 - generating, 7 – 23 to 7 – 27, 11 – 27

- reversing capitalized, 7 – 32
- reviewing, 7 – 27
- sending to Oracle Assets, 7 – 29
- splitting, 7 – 28
- summarizing, 7 – 23
- assets
 - See also* asset lines; usages
 - abandoning, 7 – 34
 - Assets window reference, 7 – 13
 - assignment
 - changing, 7 – 28
 - defining, 7 – 27
 - assignments, example, 7 – 21
 - capitalized, reversing, 7 – 32
 - costs
 - adjusting after capitalization, 7 – 31
 - and CIP, 7 – 36
 - summarizing by group level, 7 – 16
 - creating, 7 – 7, 7 – 9
 - defining, 7 – 12, 17 – 91
 - expenditure type class, 17 – 79
 - extension, 19 – 144 to 19 – 146
 - grouping levels for, 7 – 16 to 7 – 21
 - interfacing, 11 – 38
 - options for, 2 – 50, 2 – 51
 - placing in service, 7 – 22
- attachments, 2 – 33, E – 2
- audits
 - dates processed, 15 – 5
 - reporting, 4 – 26
 - reports of, 10 – 18, 10 – 38, 10 – 39
- AutoAccounting
 - account generator, and, 17 – 323 to 17 – 330
 - assigning values and parameters, 17 – 324
 - deriving values, 17 – 325
 - functions
 - burden cost, 17 – 271
 - event revenue, 17 – 293
 - expense report costs, 17 – 278, 17 – 280, 17 – 281
 - labor costs, 17 – 260, 17 – 268
 - labor revenue, 17 – 275
 - list of, 17 – 238 to 17 – 240
 - listing, 10 – 4
 - revenue and invoice accounts, 17 – 295
 - supplier invoice revenue, 17 – 292
 - supplier invoices, for, 17 – 289, 17 – 290, 17 – 292
 - usage costs, 17 – 283, 17 – 285
 - usage revenue, 17 – 286, 17 – 288
 - labor, costs, 5 – 11, 5 – 13
 - lookup sets
 - defining, 17 – 250 to 17 – 253
 - examples, 17 – 279, 17 – 284, 17 – 288, 17 – 291
 - list of, 10 – 4, 10 – 11
 - retrieving values for, 17 – 320
 - multilingual support for, 15 – 59
 - multiple organizations and, 15 – 54, 15 – 55
 - Oracle Receivables, 18 – 60
 - overview, 17 – 237 to 17 – 240
 - parameters, 17 – 241
 - rules
 - See also* AutoAccounting, lookup sets
 - assigning to transactions, 17 – 252, 17 – 253
 - defining, 17 – 240
 - intermediate values, 17 – 240
 - list of, 10 – 5
 - SQL select statements, 17 – 245
 - window reference, 17 – 248, 17 – 254
 - segments, 10 – 5
 - setting up, 17 – 239
 - using SQL functions, 17 – 326
- autoallocations
 - See also* allocations
 - Oracle Workflow for
 - overview, 6 – 36 to 6 – 37
 - processes, 6 – 38 to 6 – 49
 - unsupported processes, 6 – 36
 - order of steps, 6 – 31
 - prerequisites, 6 – 29
 - profile option, 6 – 29, B – 8
 - sets of rules
 - creating, 6 – 28, 6 – 30
 - processing, 6 – 32
 - step-down, failure of, 6 – 30
 - viewing status of, 6 – 34
 - submitting, 6 – 32
 - terminology, 6 – 28
- AutoInvoice, 13 – 60, 13 – 65, 18 – 55
 - See also* Oracle Receivables

automatic events, 19 – 92

B

baselining. *See* budgets, baselining

billing

See also currencies

burden

schedules, 5 – 21

transactions, 5 – 43

cost-to-cost, 17 – 165

cycles

defining, 17 – 131

window reference, 17 – 131

extensions

assigning to projects, 2 – 55

concepts, 19 – 74 to 19 – 83

debugging, 19 – 93 to 19 – 97

deriving cycle dates, 19 – 98

implementing, 19 – 70 to 19 – 75

overview, 19 – 67 to 19 – 70

views and procedures, 19 – 84 to 19 – 91

holds, 4 – 28

intercompany

controls, 12 – 18

overview, 12 – 33

procedures for, 12 – 70

processing flow, 12 – 28

processing methods, 12 – 15

overview, 1 – 3

projects (providers and receivers), 2 – 44

rates, 2 – 57, 2 – 58, 2 – 62

reports, 10 – 29 to 10 – 37

schedules

burden, 5 – 21

defining, 17 – 137

rates, 15 – 54

standard, 2 – 56

setting up, 2 – 51, 17 – 130, 17 – 201

surcharges, 16 – 14

tax codes, 18 – 66

titles, 2 – 60, 2 – 61

billing schedules, rates, list of, 10 – 13

borrowed and lent amounts

See also AutoAccounting; cross charge;

inter-project billing

cross charge, 12 – 15, 12 – 67

distributing, 11 – 14

budgets

baselining, 3 – 36

Budget Lines window, 3 – 19

calculating amounts, 3 – 26

change reasons, 17 – 173

controls on, 17 – 198

copying, 3 – 26 to 3 – 32

creating and revising, 3 – 13

date range, 3 – 3

drafts

baselining, 3 – 36

creating, 3 – 15 to 3 – 19

deleting, 3 – 32

submitting, 3 – 32

entry methods, 17 – 169

examples, 3 – 5

extensions, 3 – 34, 19 – 14 to 19 – 21

history, 3 – 10

lines

entering, 3 – 19 to 3 – 25

revising and deleting, 3 – 25

overview, 3 – 2 to 3 – 12

PA periods, 17 – 71

period-phased, 3 – 20

reviewing, 3 – 39

revising, 3 – 25, 3 – 38

security, 3 – 9

summary amounts, 9 – 12

time-phased, 3 – 3, 3 – 20, 3 – 28

types, 3 – 10

cost-to-cost revenue, 17 – 165

defining, 17 – 168

example, 17 – 169

verification extension, 3 – 34, 19 – 116

versions, 3 – 10

work breakdown structure, 3 – 2

workflows for

default process, 13 – 101

overview, 13 – 99

burden schedules

adding organizations, 17 – 45

- correcting, 17 – 124
 - defining, 17 – 117
 - multiple organizations, for, 15 – 57
 - order of precedence, 5 – 47 to 5 – 49
 - overriding, 2 – 50
 - burden structures, 17 – 113 to 17 – 117
 - burden transactions
 - adjusting, 4 – 34
 - cost distribution, 11 – 23
 - expenditure item date, 5 – 33
 - importing, 14 – 18
 - interfacing, 11 – 58
 - recalculating, 4 – 29
 - setting up, 17 – 79
 - burdened costs
 - calculating, 5 – 7
 - codes, defining, 17 – 112
 - creating and distributing, 11 – 10
 - distributing, 11 – 22
 - interfacing, 11 – 57
 - organization for, 5 – 48
 - recalculating, 4 – 29
 - tieback, 11 – 72
 - viewing, 17 – 125
 - burdening
 - accounting transactions, 15 – 25
 - algorithm, 15 – 23
 - application programming interface, 19 – 147
 - billing transactions, 5 – 43
 - budgets for, 15 – 21
 - costs
 - accounting for, 5 – 31, 5 – 36, 5 – 41
 - basis for, 15 – 26
 - building, 5 – 17
 - calculating, 5 – 28
 - overview, 5 – 15 to 5 – 18
 - process flow, 5 – 44
 - reporting, 5 – 42, 15 – 21 to 15 – 35
 - storing and viewing, 5 – 30 to 5 – 53
 - expenditure items, 5 – 30
 - extension for costing, 19 – 56
 - frequently asked questions, 5 – 45
 - hierarchy, setting up, 17 – 40
 - income statements for, 15 – 22
 - labor costs, 5 – 10
 - overview, 5 – 16
 - reporting
 - project management, 15 – 30 to 15 – 35
 - to GL, 15 – 21, 15 – 26
 - revenue, 5 – 43
 - schedules for, 5 – 21 to 5 – 25, 5 – 28 to 5 – 30
 - setting up, 2 – 49 to 2 – 51, 15 – 36 to 15 – 40, 17 – 110
 - storing and viewing, setting up for, 5 – 35
 - structures for, 5 – 19 to 5 – 21
 - summaries of, 5 – 32
 - testing, 5 – 47
 - business groups
 - burden schedules, 17 – 117
 - integrating with other applications, 17 – 42
 - organizations, 17 – 37
 - project burdening hierarchy, 17 – 40
 - resource lists, defining, 17 – 174
 - setting up, 17 – 58
- ## C
- capital projects
 - See also* asset lines; assets
 - about, 2 – 8
 - accounting for costs, 7 – 36
 - asset lines
 - assigning, 7 – 27
 - generating summary, 7 – 23
 - sending to Assets, 7 – 29
 - charging expenditures to, 7 – 6
 - copying, 2 – 32
 - defining assets for, 7 – 12
 - grouping levels for, 7 – 16 to 7 – 21
 - options for, 2 – 50
 - overview, 7 – 2
 - placing assets in service, 7 – 6, 7 – 22
 - processing flow, 7 – 3
 - purchase orders for, 7 – 4
 - reversing capitalized assets, 7 – 32
 - setting up, 17 – 200
 - viewing in Oracle Assets, 13 – 76
 - capitalization
 - for capital project WBS levels, 7 – 10
 - tasks, 2 – 14
 - case studies
 - allocations, 16 – 3

- billable status default, 16 – 12
- billing surcharges, 16 – 14
- cost accrual, 8 – 90
- organization hierarchy, 16 – 31
- summarizing amounts, 16 – 20
- transaction controls, 16 – 8, 16 – 10
- chart of accounts, 17 – 28 to 17 – 33
- CIP, assets
 - costs, 7 – 36
 - overview, 7 – 2
 - setting up, 17 – 200
- class categories and codes
 - defining, 17 – 186 to 17 – 188
 - in projects, 2 – 42
 - list of, 10 – 6
 - project type, 2 – 8
- client extensions
 - billing, example, 8 – 80
 - implementing, 19 – 4 to 19 – 10
 - overview and list, 19 – 2 to 19 – 10
 - syntax, 19 – 7
- Column Setup window, 17 – 219
- commitments
 - amounts, 9 – 14
 - extension for tracking changes, 19 – 58
 - from external systems, 18 – 29
 - from Oracle Payables, 13 – 52
 - reviewing details, 9 – 9
 - views, 18 – 29
- compensation rules
 - defining, 17 – 104, 18 – 9
 - list of, 10 – 6
- construction in process. *See* CIP
- contact types, 10 – 12, 17 – 194
- contract projects
 - about, 2 – 8
 - billable tasks, 2 – 14
 - funding, 8 – 5, 8 – 18 to 8 – 22
 - overview of billing for, 8 – 2
 - reviewing invoices for, 9 – 10
 - setting up, 17 – 202
 - billing, 17 – 201 to 17 – 202
 - distribution rules, 17 – 202
 - project type, 17 – 196
- Control Actions window, 14 – 4
- control totals, 4 – 21
- Controlling Billing by Top Task window, 8 – 16
- copying
 - expenditure batches, 4 – 20
 - projects, 2 – 32
 - resource lists, 17 – 178
 - timecard batches, 4 – 20
- Cost Audit Report. *See* reports and listings, GL Cost Interface Audit
- cost plus. *See* burdening
- cost rates
 - employee, 17 – 106
 - expenditure type, 17 – 101
 - for multiple organizations, 15 – 53
 - labor cost multipliers, 17 – 105, 17 – 107
 - list of, 10 – 7
 - multi-organization, 17 – 101, 17 – 106
 - overrides, 17 – 102
- costing
 - burden schedules, 2 – 49, 5 – 21 to 5 – 28
 - burden transactions, 5 – 7
 - labor, 5 – 8 to 5 – 13
 - overview, 1 – 2, 5 – 2 to 5 – 4
- costs
 - accruing
 - accounting for, 8 – 81
 - custom procedures for, 8 – 92 to 8 – 94
 - extension for identification, 19 – 165
 - implementation example, 8 – 84 to 8 – 89
 - overview, 8 – 80
 - bases and types, 17 – 110
 - burdening, 5 – 16
 - overview, 5 – 15 to 5 – 18
 - calculating, 5 – 5 to 5 – 8
 - distributing, 13 – 25
 - GL date for, 13 – 26
 - indirect. *See* indirect costs
 - interfacing to GL, 13 – 14
 - labor, 17 – 78
 - options for interface, 17 – 64
 - tying back from GL, 13 – 17
 - unrelated to projects. *See* indirect costs
- credit
 - memos, 8 – 66, 13 – 62
 - receivers, 2 – 55, 18 – 63

- types, 10 – 6, 18 – 61
 - setting up, 17 – 160
- cross charge
 - See also* inter–project billing
 - adjustments, 12 – 30
 - allocations and, 6 – 5, 6 – 12
 - controls
 - operating unit, 12 – 16
 - provider / receiver, 12 – 55
 - distributions, 12 – 79
 - extensions for
 - cost accrual ID, 19 – 165
 - determining transfer price, 19 – 157
 - overriding processing method, 19 – 154
 - overriding providers and receivers, 19 – 152
 - overriding transfer price, 19 – 160
 - overriding transfer price currency, 19 – 163
 - glossary of terms, 12 – 11
 - options, 12 – 52
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processes, 12 – 22
 - processing
 - controls, 12 – 19
 - methods, 12 – 15
 - options, 12 – 59
 - overview, 12 – 62
 - setting up, 12 – 38
 - transactions
 - adjusting, 12 – 81
 - creating, 12 – 64
 - types of, 12 – 14
 - transfer pricing, 12 – 21
- currencies
 - attributes, changing, 4 – 31
 - converting, 4 – 59
 - Currencies window, 17 – 7
 - defining, 17 – 7, 18 – 44
 - extensions, transfer price currency, 19 – 163
 - formats, 17 – 214, 17 – 217, 17 – 221
 - implementation options, 17 – 60
 - importing transactions in foreign, 14 – 20
 - invoice, 2 – 44, 8 – 64

- multiple
 - adjusting transactions for, 4 – 33
 - billing in, 2 – 44, 17 – 138, 18 – 45
 - interfacing to GL, 13 – 13
 - invoice formats in, 17 – 150
 - multinational setup, 2 – 45
 - reporting, 12 – 31
 - setting up for, 18 – 44
- rounding, 14 – 22, 17 – 141
- customers
 - applying tax, 18 – 66
 - defining relationships, 17 – 193
 - in projects, 2 – 43
 - in templates, 2 – 26
 - integrating with other applications, 17 – 54
 - listing relationships, 10 – 12
 - merging, 13 – 70
 - setting up, 17 – 54

D

- dates
 - accounting, 15 – 3 to 15 – 10
 - effective, 2 – 42, 17 – 25
 - project, 2 – 10, 2 – 20, 2 – 42
 - task, 2 – 13
- debugging, 6 – 29, 10 – 3, B – 8
- descriptive flexfields
 - allocation, 19 – 138
 - Invoice Transaction, B – 19
 - list of, D – 2
 - mapping extension, 19 – 60
 - overview, 17 – 236
- direct projects. *See* contract projects
- distribution
 - lines, for burdened costs, 5 – 36
 - sets for invoices, 18 – 53
- drafts. *See* budget drafts
- drilldown to
 - commitments, actuals, events, 9 – 7
 - Oracle General Ledger, 4 – 49 to 4 – 51
 - Oracle Payables, 4 – 48, 9 – 9

E

employees

- adding, 13 – 79
- as suppliers, 13 – 23, 18 – 51
- assignments, list of, 10 – 7
- changing name for, 13 – 80
- compensation rules, 17 – 104
- cost rates, 17 – 106
- integrating with other applications, 17 – 34, 17 – 51
- key members, assigning, 2 – 46
- reports, 10 – 28
- revenue credit, 17 – 160
- setting up, 17 – 51, 18 – 61
- terminating, 13 – 80
- time-off costs, 17 – 128

events

- automatic, 17 – 167, 19 – 92
- entering, 8 – 23
- function security, 8 – 26
- reviewing, 8 – 23, 9 – 9
- types
 - defining, 17 – 162
 - list of, 10 – 7

windows

- Event Details, 8 – 26
- Event Revenue Dist. Lines, 8 – 26
- Event Summary, 8 – 24

write-on, 8 – 53

exchange rates, setting up, 17 – 60, 17 – 62

expenditure batches

- copying, 4 – 20
- correcting (reworking), 4 – 24
- creating, 4 – 13
- Expenditure Batches Summary window, 4 – 21
- Expenditure Batches window, 4 – 12
- function security, C – 7
- list of, 10 – 18
- overview, 4 – 9 to 4 – 25
- report, 10 – 17
- reversing, 4 – 23
- reviewing, 4 – 22
- status, 4 – 10
- submitting, 4 – 21

verifying, 4 – 21

windows, 4 – 12, 4 – 20

expenditure inquiry. *See* expenditure items; expenditures

expenditure items

- adjusting, 4 – 53, 7 – 31
- converted, 4 – 32
- capitalizable, 4 – 68
- control functions, 7 – 11
- controls on, 4 – 66
- dates, 5 – 33, 15 – 3 to 15 – 10
- Expenditure Items window, 4 – 51
- splitting, 4 – 56
- transferring, 4 – 55
- validating, 4 – 3
- viewing, 4 – 47 to 4 – 53

Expenditure Items window, 4 – 51

expenditure types

- categories, 17 – 82
- classes, setting up, 17 – 78 to 17 – 80
- cost rates, 17 – 101
- defining, 17 – 87
- in AutoAccounting rules, 17 – 279, 17 – 284, 17 – 288, 17 – 291
- list of, 10 – 8
- revenue category, 17 – 83

expenditures

- adjusting, 4 – 26 to 4 – 46
- amounts, 4 – 2
- approving, 19 – 142
- categories, 17 – 82
- classifications, 4 – 2
- cost rates, list of, 10 – 7
- cycle start day, 17 – 63
- entering, 4 – 8
- organizations for, 17 – 65
- overview, 4 – 2
- preapproved. *See* expenditure batches
- rejected, 4 – 3, 4 – 4
- validation, 4 – 3
- viewing, 4 – 47 to 4 – 53

expense reports

- adjusting, 13 – 36
- advances, 13 – 34
- approving, 19 – 142
- batches, naming, 13 – 39

- calculating costs, 5 – 6
- dates, 15 – 5 to 15 – 9
- distributing, 11 – 16
- distributing costs, 13 – 25
- importing, 14 – 25
- integrating with Oracle Payables, 13 – 21, 18 – 50
- interfacing to
 - Oracle General Ledger, 13 – 30, 13 – 33
 - Oracle Payables, 11 – 44, 13 – 24
- mailing address, 17 – 51
- prepayments, 13 – 34
- purging, 13 – 37
- summarizing lines, B – 16
- tieback from Oracle Payables, 11 – 67
- tying back from Oracle Payables, 13 – 29
- viewing in Oracle Payables, 13 – 38
- exporting to spreadsheet or text file, 9 – 3
- extensions. *See* client extensions

F

- factoring, 9 – 5
- Find Tasks window, 2 – 37
- fixed assets. *See* Oracle Assets
- FlexBuilder. *See* Account Generator
- flexfields
 - See also* descriptive flexfields; key flexfields; sets of books
 - Account Generator: Purge Runtime Data profile option, B – 18
 - job, 17 – 47 to 17 – 49
- folders, A – 2
- forecasting, 11 – 9
- foreign currency. *See* currencies
- Fremont Corporation
 - about, 17 – 5, 17 – 23
 - accounting flexfield, 17 – 29
 - AutoAccounting example, 17 – 256 to 17 – 286
 - chart of accounts, 17 – 29
 - organization hierarchy, 17 – 40
 - set of books, 17 – 28
- fringe benefits. *See* indirect projects

- function security. *See* security
- functions. *See* AutoAccounting
- Fund Projects window, 8 – 12
- future period transactions, 11 – 77

G

- general ledger. *See* Oracle General Ledger
- GL date, expense reports, 13 – 26
- GL periods, 17 – 69
- grouping levels for capital projects, 7 – 16 to 7 – 21

H

- hard limits, 8 – 11, 8 – 57, 19 – 92
- human resources. *See* Oracle Human Resources

I

- implementation. *See* implementation options; setting up
- implementation options
 - billing, 17 – 65
 - business group, 17 – 58
 - currencies, 17 – 60
 - exchange rates, 17 – 60, 17 – 62
 - expenditure cycle start day, 17 – 63
 - Implementation Options window, 17 – 57
 - interface to GL, 17 – 64, 17 – 65
 - invoices, 17 – 66
 - list of, 10 – 8
 - organization hierarchies
 - default reporting, 17 – 59
 - expenditure / event, 17 – 65
 - project / task owning, 17 – 63
 - overtime calculations, 17 – 64
 - period types
 - PA, 17 – 59
 - summarization, 17 – 58
 - project setup, 17 – 62
 - set of books, 17 – 58
 - system, 17 – 58
 - tax defaults, 17 – 68

- implementation wizard, 17 – 5
- importing
 - See also* Activity Management Gateway; integration; interfaces; transaction import
 - invoices, 13 – 27
 - manufacturing costs, 14 – 19
 - transactions, 14 – 11
- income statement, burden cost accounting, 15 – 22
- indirect costs
 - employee benefits, 17 – 128
 - labor
 - administrative, 17 – 126
 - overtime, 18 – 2
- indirect projects
 - about, 2 – 8
 - for multiple organizations, 15 – 56
 - multi-organization, 17 – 126
 - setting up, project type, 17 – 196
- integration
 - See also* interfaces
 - capital projects, 7 – 3
 - external systems, 14 – 2, 18 – 29
 - Microsoft Project, 14 – 7
 - Oracle Assets, 7 – 7, 7 – 29, 13 – 72
 - Oracle General Ledger, 13 – 10, 17 – 64, 17 – 65
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 7 – 5, 13 – 21, 18 – 51
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Purchasing, 7 – 4, 17 – 302
 - Oracle Receivables, 13 – 60
 - Oracle Workflow, 13 – 88
- inter-project billing
 - See also* cross charge
 - glossary of terms, 12 – 11
 - invoices, adjusting, 12 – 91
 - options, 12 – 54
 - overview, 12 – 4 to 12 – 10
 - procedures, 12 – 47 to 12 – 59
 - processing
 - methods, 12 – 15
 - overview, 12 – 88
 - selecting projects for, 2 – 44
 - setting up, 12 – 38
 - transactions, types of, 12 – 14
- intercompany, accounting transactions, 13 – 18
- intercompany billing, invoice formats, 17 – 150
- interest expense. *See* corporate expenses
- interface tables, 14 – 34, 14 – 36
- interfaces
 - See also* integration
 - audit reports, 10 – 38 to 10 – 41
 - costs, 13 – 14, 17 – 64
 - Oracle Assets, 7 – 29, 13 – 72
 - Oracle General Ledger
 - invoices, 13 – 30, 13 – 33, 13 – 67
 - overview, 13 – 10
 - Oracle Human Resources, 13 – 79
 - Oracle Inventory, 13 – 84
 - Oracle Payables, 11 – 42
 - expense reports, 13 – 24
 - supplier invoices, 13 – 45
 - Oracle Project Manufacturing, 13 – 82
 - Oracle Receivables, 13 – 60, 13 – 64
 - overview, 13 – 2, 14 – 2
 - revenue, 13 – 14, 17 – 65
- intermediate values. *See* AutoAccounting rules
- inventory transactions, 11 – 23, 17 – 79
- invoices
 - See also* adjustments; supplier invoices
 - accrual, 2 – 52
 - adjusting, 8 – 64, 8 – 68, 12 – 91
 - adjustments, distributing, 11 – 20
 - approving, 8 – 61, 12 – 73, 19 – 100
 - batch source, 13 – 61, 17 – 67
 - cancelling, 8 – 65, 8 – 67
 - capital project, 7 – 5
 - centralized collection, 15 – 44
 - components of, 8 – 54 to 8 – 58
 - credit memos, 8 – 66
 - currency, 2 – 44
 - changing attributes, 8 – 64
 - dates, 15 – 3 to 15 – 10
 - discounting, 8 – 57
 - extension, 19 – 100
 - formats
 - creating, 17 – 148
 - examples, 17 – 150, 17 – 156

- list of, 10 – 8
- generating, 11 – 30
- hard limits, 8 – 57
- intercompany
 - approving and releasing, 12 – 73
 - generating, 11 – 36
- interfacing to
 - Oracle General Ledger, 13 – 67
 - Oracle Receivables, 11 – 48, 13 – 60, 13 – 63, 13 – 64
- Invoice Summary window, 8 – 59, 8 – 73
- Invoices window, 9 – 10
- lines, splitting and transferring, 8 – 67
- numbering, 17 – 66
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- printing, 8 – 63, 17 – 153
- processing, 17 – 67
- purging interface tables, 18 – 56
- releasing, 8 – 55, 8 – 62, 12 – 73, 19 – 100
- retention, 8 – 57
- reviewing, 8 – 58, 10 – 29
- rounding, 17 – 141
- splitting, 8 – 67
- tax
 - applying, 18 – 66
 - calculating, 13 – 67
 - codes, 18 – 66
- tieback, 11 – 69, 13 – 66
- transactions
 - for capital projects, 7 – 5
 - types of, 8 – 56, 11 – 12, 13 – 61, 18 – 57
- transferring, 8 – 67
- viewing, 8 – 70 to 8 – 73
- writing off, 8 – 65

invoicing

- See also* invoices
- based on funding, 8 – 53
- decentralized, 18 – 57
- generating for projects, 8 – 50
- organization level for, 18 – 55
- overview, 8 – 48
- prerequisites, 8 – 49

J

- job flexfields, 17 – 47 to 17 – 49
- jobs
 - assigning, 2 – 60
 - bill rate, 2 – 58
 - defining flexfields, 17 – 47 to 17 – 49
 - integrating with other applications, 17 – 34
 - list of, 10 – 9
 - title, 2 – 61
 - titles, defining, 17 – 47 to 17 – 49
- Journal Import (GL), 13 – 16

K

- Key Flexfield Segments window, 17 – 48
- key members, 2 – 23, 2 – 46

L

- labor
 - See also* labor costs
 - AutoAccounting for, 5 – 11, 5 – 13
 - extensions
 - billing, 19 – 46 to 19 – 49
 - costing, 19 – 31 to 19 – 33
 - transaction, 19 – 34 to 19 – 45
- labor costs
 - administrative, 17 – 126
 - calculating, 5 – 5
 - costs
 - overriding distributions, 5 – 11
 - reports for, 5 – 13
 - distributing, 5 – 8 to 5 – 13, 11 – 18
 - expenditure type classes, 17 – 78
 - extensions, 19 – 31 to 19 – 33
 - interfacing, 11 – 50
 - multipliers, 2 – 59, 17 – 107
 - list of, 10 – 9
 - overtime, 5 – 12
 - rates, list of, 10 – 9
 - security, 15 – 13
 - straight time, 5 – 10
 - tieback, 11 – 70
- labor revenue, 17 – 275
 - See also* AutoAccounting

- languages
 - See also* multilingual support
 - multiple, 15 – 58
- liability account, 13 – 26
- limiting, revenue accrual, 8 – 11
- listings. *See* reports and listings
- locations
 - integrating with other applications, 17 – 36
 - work site, 2 – 14
- lookup sets. *See* AutoAccounting
- lookups, 10 – 11
- Lookups window, 17 – 76

M

- manufacturing costs, importing, 14 – 19
- mass adjustment of expenditures, 4 – 55
- mass allocations, 5 – 46
- Mass Update Batches window, 2 – 64
- menu paths, windows, A – 2
- merging customers, 13 – 70
- Microsoft Project, 14 – 7
- MLS. *See* multilingual support
- MRC. *See* currencies, multiple
- multi-currency
 - See also* currencies, multiple
 - setup, 18 – 44
- multi-org. *See* multiple organizations
- multilingual support, 15 – 58
 - AutoAccounting and, 15 – 59
 - lookups, 17 – 76
- multiple organizations
 - See also* organizations
 - AutoAccounting rules, 17 – 258
 - bill rate schedules, 17 – 137
 - burden schedules, 17 – 117
 - cost rate overrides, 17 – 102
 - cost rates, 17 – 101, 17 – 106
 - indirect projects, 17 – 126
 - numbering
 - invoices, 17 – 66
 - projects, 17 – 63
 - operating units in, 15 – 48, 15 – 51

- options, 17 – 57
- overview, 15 – 46
- PA periods, 17 – 74
- profile options for, 15 – 56, 17 – 234
- project templates, 2 – 16
- project types, 17 – 197
- resource lists, 17 – 174
- setting up, 15 – 52
- terminology, 15 – 46

Multiple Reporting Currencies. *See* currencies, multiple

N

- navigation paths, windows, A – 2
- non-labor resources
 - cost rates, list of, 10 – 7
 - list of, 10 – 10
 - setting up, 17 – 80, 17 – 91
 - window, 17 – 91
- number formats, 17 – 214, 17 – 217, 17 – 221
- numbering methods
 - invoices, 17 – 66
 - projects, 17 – 62
 - tasks, 2 – 13

O

- OIT (Oracle Integration Toolkit). *See* Activity Management Gateway
- operating units
 - adding, 15 – 51
 - multiple, 15 – 48
 - setting up for cross charge, 12 – 41
- Oracle Applications Implementation Wizard, 17 – 5
- Oracle Assets
 - adjustments, 13 – 77
 - cost adjustments, 13 – 78
 - creating asset lines for, 7 – 23
 - implementing, 13 – 72
 - integrating with, 13 – 72
 - interfacing assets to, 13 – 73
 - mass additions, 13 – 75
 - viewing capital project assets, 13 – 76

- Oracle General Ledger
 - burden amounts, reporting to, 15 – 21
 - integrating with, 13 – 10
 - integration, 17 – 58
 - predefined data, 13 – 12
 - profile options, 18 – 46
- Oracle Human Resources
 - employees, 17 – 51
 - integrating with, 13 – 79, 17 – 34 to 17 – 51
 - jobs, 17 – 47 to 17 – 49
 - organizations, 17 – 40
- Oracle Integration Toolkit. *See* Activity Management Gateway
- Oracle Inventory, 13 – 84
- Oracle Payables
 - account generators for, 13 – 51, 17 – 306
 - advances (prepayments), 13 – 34
 - entering
 - project defaults, 13 – 45
 - project information, 13 – 46
 - generating accounts for, 17 – 303
 - importing invoices from, 13 – 27
 - integration, 13 – 21, 13 – 40
 - profile options, 18 – 46
 - setting up, 18 – 50
 - system options, 18 – 51
 - viewing expense reports, 13 – 38
- Oracle Personnel. *See* Oracle Human Resources
- Oracle Project Analysis Collection Pack, 18 – 47
- Oracle Project Connect, 14 – 7
- Oracle Project Manufacturing, 13 – 82
- Oracle Projects Lookups window, 17 – 76
- Oracle Purchasing
 - account generators for, 13 – 51
 - defaults, 13 – 43
 - entering, project information, 13 – 46
 - generating accounts for, 17 – 302
 - integration, 13 – 40
 - setting up, 18 – 54
- Oracle Receivables
 - AutoInvoice, 13 – 60, 13 – 65
 - drilling down to, 8 – 71
 - extensions to
 - determine transaction type, 19 – 105
 - override installation, 19 – 65
 - integrating with, 13 – 60, 19 – 105
 - merging customers with, 13 – 70
 - predefined data, 13 – 61
 - setting up, 18 – 46, 18 – 55, 18 – 60
 - invoice rounding, 17 – 141
 - payment terms, 17 – 134
 - units of measure, B – 15
 - system options, 18 – 56
 - unbilled, 8 – 70
 - viewing invoices in, 13 – 68
- Oracle Workflow
 - Account Generator: Purge Runtime Data
 - profile option, B – 18
 - account generators, 17 – 302, 17 – 306
 - autoallocations, for, 6 – 36 to 6 – 53
 - budget workflow
 - default process, 13 – 101
 - overview, 13 – 99
 - extensions for
 - budget workflow, 19 – 119
 - project verification, 19 – 110
 - project workflow, 19 – 113
 - for autoallocations, B – 8
 - integrating with, 13 – 88
 - processes
 - creating, 17 – 312
 - modifying, 17 – 311
 - Project Expense Report Account Generator, 17 – 311
 - Project Supplier Invoice Account Generation, 17 – 306
 - project types setup, 17 – 199
 - project workflow, 13 – 89
 - viewing attributes, 17 – 316
- organizations
 - See also* multiple organizations
 - burden schedules, adding to, 17 – 45
 - business group, 17 – 42
 - classifications, 17 – 35
 - expenditures and events, for, 17 – 65
 - extension to verify changes, 19 – 125
 - hierarchy, listing, 10 – 10
 - hierarchy of, 17 – 40, 17 – 59, 17 – 63
 - integrating with other applications, 17 – 34, 17 – 35
 - list of, 10 – 11

- locations of, 17 – 36
- overriding, 2 – 47
- overview, 2 – 8, 15 – 41 to 15 – 45, 17 – 35
- task, 2 – 13

overhead. *See* indirect costs

overtime

- adjusting, 18 – 26
- AutoAccounting and, 18 – 12
- billing, 18 – 13
- calculating, 17 – 64
 - costs for, 18 – 2
 - extension for, 19 – 50 to 19 – 55
 - hours, 18 – 21
 - program for, 18 – 24
- compensation rules, 17 – 104, 18 – 5, 18 – 9
- entering, 18 – 21
- expenditure types, 18 – 5
- extensions for, 18 – 14
- importing transactions for, 14 – 16
- labor cost multipliers, 18 – 6, 18 – 11
- premium projects, 18 – 7
- reports, 11 – 18
- tasks, 18 – 8
- tracking
 - overview, 18 – 4
 - setting up, 18 – 4 to 18 – 11

overviews

- billing, 1 – 3
- budgets, 3 – 2 to 3 – 12
- capital projects, 7 – 2
- client extensions, 19 – 2 to 19 – 10
- contract projects, 8 – 3
- costing, 1 – 2, 5 – 2 to 5 – 4
- expenditures, 4 – 2
- integration, 13 – 2, 14 – 2
- Oracle Projects, 1 – 2
- organizations, 15 – 41
- project status inquiry, 9 – 2
- projects and tasks, 2 – 2
- resources and resource lists, 17 – 174
- setting up Oracle Projects, 17 – 5

P

PA periods

- See also* project accounting, periods
- for multiple organizations, 15 – 52
- reports, 10 – 43 to 10 – 45
- setting up, 17 – 69 to 17 – 75

packages and procedures, 19 – 7

paths to windows, A – 2

pay types, 17 – 104

Payables. *See* Oracle Payables

payment terms, setting up, 17 – 134

percent complete

- revenue and invoice, 8 – 75 to 8 – 79
- setting up, 2 – 42
- window, 2 – 71

period types, 17 – 28, 17 – 58

Personal Profile Values window, B – 2

PL / SQL, 19 – 7

posting, 13 – 17

preapproved expenditure batches. *See* expenditure batches

preapproved expenditures. *See* expenditure batches

premium costs, 18 – 2

- See also* overtime

prepayments, creating, 13 – 34

printing invoices, 8 – 63

processes

- about
 - debug mode, 10 – 3
 - list of, 11 – 2
 - project number range parameter, 11 – 5
 - streamline, 11 – 6
 - submitting, 11 – 5
 - submitting, cancelling, and monitoring, 10 – 2
- Add New Organization Compiled Burden Multipliers, 11 – 7
- Compile All Burden Schedule Revisions, 11 – 8
- Compute Forecast Labor Revenue, 11 – 9
- Create and Distribute Burden Transactions, 4 – 34, 5 – 40, 5 – 47, 11 – 10

Create Invoice Organization Transaction Types, 11 – 12
 Delete Draft Revenue of a Single Project, 11 – 13
 Distribute Borrowed and Lent Amounts, 11 – 14
 Distribute Expense Report Costs, 11 – 16, 13 – 25
 Distribute Labor Costs, 5 – 13, 11 – 18
 Distribute Supplier Invoice Adjustment Costs, 11 – 20
 Distribute Total Burdened Costs, 11 – 22
 Distribute Usage and Miscellaneous Costs, 11 – 23
 Generate Allocation Transactions, 11 – 25
 Generate Asset Lines, 11 – 27
 Generate Draft Invoices, 11 – 30
 Generate Draft Revenue, 8 – 37, 11 – 33
 Generate Intercompany Invoices, 11 – 36
 Interface Assets, 11 – 38
 Interface Cross Charge Distributions, 11 – 40
 Interface Expense Reports from Payables, 11 – 42, 13 – 33
 Interface Expense Reports to Oracle Payables, 13 – 26
 Interface Expense Reports to Payables, 11 – 44
 Interface Intercompany Invoices to Receivables, 11 – 46
 Interface Invoices to Receivables, 11 – 48
 Interface Labor Costs to GL, 11 – 50
 Interface Revenue to GL, 11 – 52
 Interface Supplier Invoice Adjustment Costs to GL, 11 – 54
 Interface Supplier Invoices from Payables, 11 – 55
 Interface Total Burdened Costs to General Ledger, 11 – 57
 Interface Usage and Misc. Costs to GL, 5 – 40
 Interface Usage and Miscellaneous Costs to GL, 11 – 58
 Journal Import (GL), 13 – 16
 Payables Invoice Import, 13 – 27
 Payables Transfer to General Ledger, 13 – 30, 13 – 33
 Process Mass Update Batches, 11 – 60
 Refresh Project Summary Amounts, 11 – 61
 Refresh Transaction Summary Amounts, 9 – 19, 11 – 62
 Release Allocation Transactions, 11 – 63
 streamline. *See* streamline processes
 Submit Streamline Processes, 11 – 6
 Tieback Cross Charge Distributions, 11 – 65
 Tieback Expense Reports from Payables, 11 – 67
 Tieback Invoices from Oracle Payables, 13 – 29
 Tieback Invoices from Receivables, 11 – 69
 Tieback Labor Costs from GL, 11 – 70
 Tieback Revenues from GL, 11 – 71
 Tieback Total Burdened Costs from GL, 11 – 72
 Tieback Usage and Misc Costs from GL, 5 – 40, 11 – 73
 Transaction Import, 11 – 74
 Update Project Summary Amounts, 9 – 17, 9 – 18, 11 – 76
 product source, 2 – 35
 profile options, 17 – 234
 about, default values, B – 2 to B – 5
 Account Generator: Purge Runtime Data, 17 – 322, B – 18
 AR: Tax: Allow Ad Hoc Tax Changes, 18 – 46
 AR: Tax: Allow Override of Customer Exemptions, 18 – 47
 AR: Tax: Allow Override of Tax Code, 18 – 47
 AR: Transaction Flexfield QuickPick Attribute, 18 – 47, B – 19
 AR: Use Invoice Accounting for Credit Memos, 18 – 47, B – 20
 GL: Set of Books Name, 18 – 47, B – 20
 HR: Security Profile, B – 20
 MO: Operating Unit, B – 20
 multiple organizations, for, 15 – 56
 PA: ADW Collect Top Tasks, 18 – 47
 PA: ADW Installed, 18 – 47
 PA: Allow Override of PA Distributions in AP/PO, 18 – 46, B – 4
 PA: Allow Project Time and Expense Entry, 13 – 24
 PA: Allow Time and Expense Entry, B – 5
 PA: Allowed to Use AMG, 18 – 47

- PA: AutoApprove Expense Reports, 18 – 47, B – 5
- PA: AutoApprove Timesheets, 18 – 47, B – 6
- PA: Collection Pack Licensed, 18 – 47, B – 6
- PA: Cost Distribution Lines Per Set, B – 6
- PA: Cross–Project Responsibility, B – 7
- PA: Debug Mode, B – 8
- PA: Default Burden Schedule Type, B – 8
- PA: Default Expenditure Organization in AP / PO, 18 – 46, B – 9
- PA: Default Public Sector, B – 9
- PA: Display Find Tasks, B – 9
- PA: Enable Long List of Resource LOVs, B – 10
- PA: Expenditure Items Per Set, B – 10
- PA: Expenditures Per Set, B – 11
- PA: Expense Report Invoices Per Set, B – 12
- PA: Interface Unreleased Revenue to GL, B – 12
- PA: Licensed to Use AMG, B – 13
- PA: Licensed to Use Project Billing, B – 13
- PA: Project Costing Installed, B – 13
 - See also* PA: Licensed to Use Project Billing
- PA: Projects Per Set, B – 14
- PA: Receivables Invoice Line UOM, 18 – 46, B – 15
- PA: Rule–Based Optimizer, B – 15
- PA: Selective Flexfield Segment for AutoAccounting, B – 15
- PA: Streamline Process Sleep Interval, B – 16
- PA: Summarize Expense Report Lines, 13 – 24, 18 – 46, B – 16
- PA: Tab to Budget Matrix Fields, B – 17
- PA: Tasks to Display for Expenditure Entry, B – 17
- PA: Transfer DFF with AP, B – 17
- PA: Web Expenses Invoices Per Set, 13 – 24
- Tax: Allow Ad Hoc Tax Changes, B – 18
- Tax: Allow Override of Customer Exemptions, B – 18
- Tax: Allow Override of Tax Code, B – 19
- project attributes, list of, 10 – 15
- Project Customers window, 2 – 43
- Project Expenditure Accounting window, 4 – 50
- Project Funding Inquiry window, 8 – 14
- project options
 - See also* options
 - assets, 2 – 50 to 2 – 52
 - billing
 - assignments, 2 – 55
 - overrides, 2 – 57 to 2 – 60, 2 – 62
 - schedules, 2 – 56
 - setup, 2 – 51
 - burden schedules, 2 – 49 to 2 – 51
 - classifications, 2 – 42
 - credit receivers, 2 – 55
 - currency, 2 – 44
 - customers and contacts, 2 – 43
 - disabling, 2 – 42
 - job overrides, 2 – 60 to 2 – 63
 - key members, 2 – 46
 - labor, 2 – 59
 - list of, 2 – 40
 - multinational setup, 2 – 45
 - organization overrides, 2 – 47
 - overview, 2 – 40 to 2 – 63
 - resource lists, 2 – 48
 - setting up, 2 – 62
 - tax codes, 2 – 52
 - transaction controls, 2 – 48
- Project Quick Entry window
 - fields, 2 – 27, 2 – 31
 - overview, 2 – 18
- Project Revenue Accounting window, 4 – 50, 8 – 43
- project role types, list of, 10 – 12
- project security, 19 – 11
- project status
 - See also* Project Status Inquiry
 - adjustment restrictions, 4 – 26
 - changing, 2 – 10
 - extensions, 19 – 110, 19 – 113
 - listing, 10 – 12
 - new projects, 2 – 34
 - Project Status window, 9 – 2, 9 – 7
 - reports of, 10 – 25
- Project Status Inquiry
 - See also* project status; summary amounts
 - adding columns, 17 – 218, 17 – 222 to 17 – 229
 - client extensions, 17 – 222 to 17 – 229

- Column Setup window, 17 – 219
- configuring, 17 – 218
- defaults, 17 – 214 to 17 – 218
- factoring, 9 – 5
- formatting numbers and currencies, 17 – 214, 17 – 217, 17 – 221
- overview, 9 – 2
- Project Status window, 9 – 3 to 9 – 5, 9 – 6
- rounding, 17 – 217
- setting up, 17 – 213 to 17 – 229
- totals, 17 – 222
- window, 17 – 213 to 17 – 229
- project summary amounts
 - See also* summary amounts
 - custom reporting of, 18 – 34
 - future period transactions, 11 – 77
 - refreshing, 11 – 61
- project templates
 - creating, 2 – 29
 - dates in, 2 – 20 to 2 – 24
 - disabling, 2 – 31
 - expenditure batch, 4 – 20
 - for quick agreement. *See* quick agreement
 - key members, 2 – 23
 - multi-organization, 2 – 16
 - overview, 2 – 16 to 2 – 19
 - updating, 2 – 31
 - using, 2 – 20
 - using Quick Entry, 2 – 18 to 2 – 28
- project types, 10 – 13
 - about, 2 – 8
 - attributes
 - billing, 17 – 201 to 17 – 202
 - budget control, 17 – 198
 - capitalization and CIP, 17 – 200
 - costing, 17 – 198
 - general, 17 – 197
 - changing, 2 – 34
 - classes, 2 – 8
 - defaults, 17 – 196
 - defining, 17 – 203
 - example setup, 17 – 204 to 17 – 213
 - multiple organization, 17 – 197
 - overview, 17 – 196
 - window reference, 17 – 197
- project workflow
 - extension to call, 19 – 110
 - extension to change status, 19 – 113
- projects
 - See also* capital projects
 - accounting periods, 10 – 12
 - billing a different, 2 – 44
 - capital
 - about, 2 – 8
 - setting up, 17 – 200
 - class categories and codes, 17 – 186 to 17 – 188
 - contact types, 17 – 194
 - list of, 10 – 12
 - contract
 - about, 2 – 8
 - funding, 8 – 5
 - setting up, 17 – 201 to 17 – 202
 - control functions, 2 – 5
 - copying, 2 – 32
 - costs, reporting, 15 – 21 to 15 – 35
 - creating, 2 – 32
 - customer relationships, 10 – 12, 17 – 193
 - dates for, 2 – 10
 - defining, 17 – 183
 - deleting, 2 – 36
 - events, 8 – 23
 - indirect
 - about, 2 – 8
 - setting up, 17 – 196
 - mass updates, 2 – 64
 - naming, 2 – 8
 - numbering, 2 – 7, 17 – 62
 - options for, 2 – 40 to 2 – 63
 - organization, 2 – 8
 - overview, 2 – 2
 - percent complete, 2 – 71
 - public sector, 2 – 11
 - role types, 10 – 12, 17 – 191
 - security, 2 – 7
 - service types, 17 – 189
 - setting up, workflow, 17 – 199
 - status, 2 – 10, 10 – 12, 17 – 183
 - summary amounts, maintaining, 9 – 11
 - tasks
 - entering, 2 – 36

- overview, 2 – 2 to 2 – 13
- templates, 2 – 16 to 2 – 31
- type classes, 2 – 8
- types of, 2 – 8, 10 – 13, 17 – 196
- Projects window
 - assigning resource lists, 17 – 180
 - defining assets, 7 – 12
 - deleting a project, 2 – 36
 - project and task options, setting up, 2 – 28, 2 – 62
 - project templates
 - creating, 2 – 29
 - disabling, 2 – 31
 - updating, 2 – 31
 - reference, 2 – 7
 - tasks, entering, 2 – 36
- provider projects, 2 – 44
- PSI. *See* Project Status Inquiry
- public sector projects, 2 – 11
- purchase orders
 - AutoCreate, 13 – 42
 - commitments, 13 – 52
 - creating for capital projects, 7 – 4
 - entering, 13 – 42
 - interfacing project information, 18 – 54
 - matching supplier invoices, 13 – 43
 - releases, 13 – 42
 - tracking, 13 – 42
 - validating, 13 – 50
- Purchasing. *See* Oracle Purchasing
- purging
 - expense reports, 13 – 37
 - runtime data, 17 – 322

R

- raw costs. *See* costs
- Receivables. *See* Oracle Receivables
- relationships, customers and contacts, 17 – 193
- reporting period, 9 – 16
- reports and listings
 - about
 - customizing, 18 – 34 to 18 – 43

- debug mode, 10 – 3
 - project number range parameter, 11 – 5
 - submitting, cancelling, and monitoring, 10 – 2
- Accounts Receivable Interface, 11 – 48
- Accounts Receivable Transfer, 11 – 46
- Agreement Status by Customer, 10 – 31
- Agreement Types, 10 – 4
- AutoAccounting Functions, 10 – 4
- AutoAccounting Lookup Sets Listing, 10 – 4
- AutoAccounting Rule Definitions Listing, 10 – 5
- AutoAccounting Segment Rule Pairings, 10 – 5
- Batch Expense Reports, 11 – 16
- Borrowed and Lent Amounts Distribution, 11 – 13, 11 – 15
- Burden Schedule Mass Compilation, 11 – 8
- Burdened Cost, 11 – 22
- Class Categories and Codes, 10 – 6
- Compensation Rules, 10 – 6
- Credit Types Listing, 10 – 6
- Cross Charge GL Audit, 10 – 39
- Distribute Borrowed and Lent Amounts, 11 – 14
- Draft Invoice Generation Report, 11 – 31
- Draft Revenue Generation, 11 – 34 to 11 – 36
- Employee Activity by Organization, 10 – 28
- Employee Assignments, 10 – 7
- Event Types, 10 – 7
- Expenditure Batch Status, 10 – 17
- Expenditure Cost Rates, 10 – 7
- Expenditure Types Definition, 10 – 8
- Expenditures Detail, 10 – 20
- Expenditures Summary, 10 – 22
- Forecast Revenue Computation, 11 – 9
- Generate Asset Lines, 11 – 29
- GL Cost Interface Audit, 10 – 38
- GL Revenue Interface Audit, 10 – 39
- Implementation Options Listing, 10 – 8
- Intercompany Invoice, 11 – 37
- Intercompany Invoice Generation, 11 – 37
- Interface Expense Reports, 11 – 44
- Interface Labor Costs to GL, 11 – 50
- Interface Project Costs from Payables, 11 – 56
- Interface Revenues to GL, 11 – 53

- Interface Supplier Invoice Adjustment Costs to GL Report, 11 – 54
- Interface Total Burdened Cost to GL, 11 – 57
- Interface Usage to GL, 11 – 58
- Interfaced Assets, 11 – 38
- interfaced expense reports, 13 – 27, 13 – 29
- invoice distributions, 13 – 34
- Invoice Flow, 10 – 33
- Invoice Formats, 10 – 8
- Invoice Review, 10 – 29
- Job, 10 – 9
- Labor Cost Rates, 10 – 9
- Labor Costs, 11 – 18
- Labor Costs Multipliers, 10 – 9
- Missing Timecards, 10 – 18
- Non-Labor Resources By Organization, 10 – 10
- Organization, 10 – 11
- Organization Hierarchy, 10 – 10
- Overtime Labor Calculations, 11 – 18
- Potential Revenue Summary, 10 – 34
- Pre-Approved Expenditures Entry Audit, 10 – 18
- Pre-Approved Expenditures Entry Audit Report, 14 – 31
- Project Accounting Lookups, 10 – 11
- Project Accounting Periods, 10 – 12
- Project Billing Status, 10 – 35
- Project Configuration, 10 – 15
- Project Contact Types, 10 – 12
- Project Customer Relationships, 10 – 12
- Project Expenditure Adjustment Activity, 10 – 23
- Project Role Types, 10 – 12
- Project Statuses, 10 – 12
- Project Subledger, 10 – 41, 10 – 42
- Project Types, 10 – 13
- Revenue Categories, 10 – 13
- Revenue Flow Detail, 10 – 36
- Revenue, Cost, Budgets, 10 – 25, 10 – 26
- Reverse and Interface Exceptions, 11 – 29
- Service Types, 10 – 13
- Standard Bill Rate Schedules, 10 – 13
- Streamline Processing Report, 11 – 6
- submitting, 10 – 2
- Summarization Period Exceptions, 10 – 46
- Summarized Burden Component Items, 11 – 10
- Supplier Invoice Adjustment Cost, 11 – 20
- Task Configuration. *See* reports and listings, Task Detail Report
- Task Details, 10 – 15
- Task-Revenue, Cost, Budgets by Resources, 10 – 26
- Tieback Cross Charge Distributions, 11 – 66
- Tieback Expense Reports Costs, 11 – 67
- Tieback Invoices, 11 – 69
- Tieback Labor Costs, 11 – 70
- Tieback Revenues, 11 – 71
- Tieback Total Burdened Costs, 11 – 72
- Tieback Usage and Misc. Costs, 11 – 73
- Transaction Import, 11 – 75
- Transaction Sources, 10 – 14
- Transfer Activity, 10 – 23
- Transfer Cross Charge Amounts to GL, 11 – 41
- Unbilled Receivables Aging, 10 – 30
- Units Definition, 10 – 14
- Unprocessed Events, 11 – 32
- Update Project Summary Amounts, 11 – 77
- Usage and Misc. Cost, 11 – 23
- Work Breakdown Structure, 10 – 16
- requests. *See* processes, about; reports and listings, about
- requisitions
 - commitments, 13 – 52
 - entering, 13 – 41
 - interfacing, 13 – 40
 - validating, 13 – 50
- resource lists
 - assigning to projects, 2 – 48, 17 – 180
 - changing after summarization, 9 – 21
 - defining, 17 – 178
 - multiple organizations, for, 15 – 57, 17 – 174
 - overview, 17 – 174
 - windows reference, 17 – 176
- Resource Status window, 9 – 3, 9 – 7
- resources. *See* resource lists
- retention, 8 – 57
- revenue
 - accounting transactions, 15 – 17
 - accrual, 2 – 52, 8 – 11, 8 – 28

- adjusting, 8 – 40
- and multiple customers and agreements, 8 – 34
- borrowed and lent. *See* AutoAccounting; cross charge; inter-project billing
- burdening, 5 – 43
- calculations, 8 – 31
- categories, 10 – 13, 17 – 83
- credit types, 17 – 160, 18 – 61
- dates, 15 – 7
- deleting, 8 – 37, 11 – 13
- distribution rules, 2 – 52, 17 – 167
- forecasting, 11 – 9
- generating, 8 – 29, 8 – 37, 11 – 33
- interfacing, 11 – 52, 13 – 14
- percent complete, 8 – 75 to 8 – 79, 17 – 167
- reports, 10 – 34, 10 – 36
- reviewing, 8 – 41
- tieback, 11 – 71
- tying back from GL, 13 – 17
- windows
 - Project Revenue Accounting, 8 – 43
 - Revenue, 8 – 45
 - Revenue Lines, 8 – 46 to 8 – 48
 - Revenue Review, 8 – 41
 - Revenue Summary, 8 – 44
 - View Revenue Accounting, 8 – 43
- Review Transactions window, 14 – 58, 14 – 60
- role types, 10 – 12, 17 – 191
- rule assignments. *See* AutoAccounting

S

- sales credit, 18 – 61, 18 – 64
- sales representatives, 18 – 61
- schedules
 - billing, 2 – 56
 - burden, 5 – 21 to 5 – 28
 - overriding, 2 – 50
- security
 - budget, 3 – 9
 - function
 - event, 8 – 26
 - list, C – 2 to C – 13
 - overview, C – 2
 - project, 2 – 7
 - project and labor costs, 15 – 13
- service types
 - list of, 10 – 13
 - setting up, 17 – 189
 - tasks, 2 – 14
- set of books
 - defining, 17 – 27
 - Fremont Corporation, 17 – 28
 - setting up, 17 – 58
- setting up
 - account generators, 17 – 302
 - agreement types, 17 – 135
 - business groups, 17 – 58
 - capital projects, 17 – 196, 17 – 200
 - checklist for, 17 – 6 to 17 – 21
 - class categories and codes, 17 – 186 to 17 – 188
 - compensation rules, 17 – 104
 - contact types, 17 – 194
 - contract projects, 17 – 196, 17 – 201 to 17 – 202
 - cost rates
 - employee, 17 – 106
 - expenditure, 17 – 101
 - credit types, 17 – 160
 - currencies, 17 – 60
 - customer relationships, 17 – 193
 - dates, 17 – 25
 - event organization, 17 – 65
 - example (Fremont Corp), 17 – 23
 - exchange rates, 17 – 60, 17 – 62
 - expenditure
 - cycles, 17 – 63
 - types, 17 – 87
 - implementation options, list of, 10 – 8
 - indirect projects, 17 – 196
 - journals, 17 – 64, 17 – 65
 - labor costs, multipliers, 17 – 107
 - lookups, 17 – 76
 - multiple organizations, 15 – 51, 15 – 52
 - non-labor costs, 17 – 101
 - numbering for, invoices, 17 – 66
 - organization hierarchies, default reporting, 17 – 59

- overtime calculations, 17 – 64
- overview of, 17 – 5
- PA periods, 17 – 69 to 17 – 75
- period types
 - PA, 17 – 59
 - summarization, 17 – 58
- planning, 17 – 2 to 17 – 5
- project
 - role types, 17 – 191
 - security, 2 – 7
 - status, 17 – 183
 - types, 17 – 196
- resources, non-labor, 17 – 91
- role types, 17 – 191
- security, B – 18, B – 20
 - function, C – 2
 - project, 2 – 7, 15 – 13
- service types, 17 – 189
- sets of books, 17 – 58
- tax defaults, 17 – 68
- transaction sources, 17 – 95 to 17 – 98
- units of measure, 17 – 85
- soft limits, 8 – 11
- Source Products window, 14 – 5
- source reference, 2 – 35
- sources
 - Oracle Payables, 13 – 34
 - Oracle Projects, 13 – 27
 - Self Service, 13 – 33
- splitting
 - asset lines, 7 – 28
 - expenditure items, 4 – 38, 4 – 56
- spreadsheets, exporting to, 9 – 3
- straight time costs, 18 – 2
- streamline processes. *See* processes, about
- subtasks, creating, 2 – 37
- summary amounts
 - actuals and commitments, 9 – 20
 - creating after conversion, 9 – 18
 - custom reports for, 18 – 34
 - maintaining, 9 – 11, 9 – 15
 - reconciling budget periods, 9 – 13
 - report of exceptions, 10 – 46
 - reviewing, 9 – 3 to 9 – 5

- setting reporting period, 9 – 16
- troubleshooting, 9 – 19
- updating, 9 – 17
- supplier invoices
 - See also* invoices
 - adjustments
 - creating, 4 – 44
 - interfacing, 11 – 54
 - calculating costs for, 5 – 7
 - commitments, 13 – 52
 - dates, 15 – 5 to 15 – 9
 - distribution sets, 13 – 44
 - entering, 13 – 44
 - interfacing, 13 – 40, 13 – 45
 - matching to purchase orders, 13 – 43
 - posting, 13 – 44
 - transferring, 11 – 55, 18 – 50
 - validating, 13 – 50
- suppliers
 - as employees, 13 – 23
 - employees as, 18 – 51
 - invoice accounts for, 17 – 303
- system integration, 13 – 2, 14 – 2
 - See also* integration

T

- Task Configuration Report. *See* reports and listings, Task Detail Report
- task service types. *See* service types
- Task Status window, 9 – 3, 9 – 7
- tasks
 - changing multiple, 2 – 64
 - control functions, 2 – 5, 7 – 11
 - creating, 2 – 36
 - dates, 2 – 13
 - deleting, 2 – 38
 - details, 10 – 15
 - levels, 2 – 2
 - manager, 2 – 13
 - mass updates, 2 – 64
 - numbering, 2 – 13
 - options for, 2 – 40 to 2 – 63
 - See also* project options
 - overview, 2 – 2 to 2 – 13

- percent complete, 2 – 42, 2 – 71
- window reference, 2 – 11
- taxes
 - codes
 - defaults, 19 – 108 to 19 – 109
 - invoice line, 18 – 66
 - setting up, 2 – 52
 - defaults, 17 – 68
 - non-recoverable, 13 – 45, 13 – 52
 - on invoices, 18 – 66, 18 – 69
 - transferring
 - from Oracle Payables, 12 – 77
 - to Oracle Receivables, 18 – 70
- templates
 - See also* project templates
 - for client extensions, 19 – 8
- text files, exporting to, 9 – 3
- tie back
 - costs and revenue, 13 – 17
 - expense reports, 13 – 29
- timecards
 - dates for, 15 – 5 to 15 – 9
 - list of missing, 10 – 18
- total burdened costs. *See* burdened costs
- transaction controls
 - case studies, 16 – 8, 16 – 10, 16 – 12
 - examples, 4 – 69 to 4 – 78
 - extensions, 19 – 22 to 19 – 30
 - in projects, 2 – 48, 7 – 11
 - on chargeable expenditures, 4 – 63
 - on purchase orders, requisitions, and invoices, 13 – 50
 - overview, 4 – 62
- transaction import
 - See also* Activity Management Gateway
 - adjusting transactions, 14 – 31
 - defining sources, 14 – 14
 - example of, 14 – 27
 - expenditure type classes for, 14 – 15
 - grouping transactions, 14 – 24
 - interface tables
 - expenditure, 14 – 34
 - populating, 14 – 13, 14 – 34
 - loading
 - accounted / unaccounted items, 14 – 17
 - burden transactions, 14 – 18
 - costed / uncosted items, 14 – 17
 - foreign currency transactions, 14 – 20
 - manufacturing costs, 14 – 19
 - options, 14 – 24
 - overview, 14 – 11, 14 – 12
 - process, 11 – 74
 - process diagram, 14 – 12
 - rejections
 - codes for, 14 – 58
 - correcting, 14 – 61 to 14 – 63
 - reviewing transactions, 14 – 60
 - rounding limit, 14 – 22
 - sources, defining for, 14 – 40
 - tables, interface control, 14 – 36
 - unmatched negative transactions for, 14 – 16
 - validation, 14 – 33 to 14 – 34
 - viewing transactions, 14 – 30
- transaction sources, default expenditure type class, 17 – 96
- transaction types
 - See also* invoicing
 - creating, 11 – 12, 18 – 57
 - cross charge, 12 – 14
 - extension, 19 – 105
 - for tax calculation, 18 – 67
 - invoices, 8 – 56, 13 – 61
- transactions
 - adjusting, 19 – 44
 - allocation, 11 – 63
 - capitalized, 7 – 10
 - cost distribution, 11 – 23
 - importing, process for, 11 – 74
 - interfacing, 11 – 58
 - liability account for, 13 – 26
 - sources
 - about, 17 – 95 to 17 – 100
 - defining, 17 – 100
 - list of, 10 – 14
 - summary amounts, 11 – 62
 - unmatched negative, 4 – 24, 14 – 16
 - work in process, 11 – 23
- transfer pricing
 - defining
 - rules, 12 – 48
 - schedules, 12 – 50

overview, 12 – 21

translation. *See* multilingual support

troubleshooting

allocations and autoallocations, 6 – 50

expenditures, rejected, 4 – 4

summary amounts, 9 – 19

U

units of measure

defining, B – 15

list of, 10 – 14

setting up, 17 – 85

usage costs, tieback, 11 – 73

usages

costs

calculating, 5 – 6

distributing, 11 – 23

interfacing, 11 – 58

rate overrides, 17 – 102

dates, 15 – 5 to 15 – 9

revenue, 17 – 288

See also AutoAccounting

setting up, 17 – 91

user profile options. *See* profile options

V

vendor invoices. *See* supplier invoices

View Expenditure Accounting window, 4 – 49

View Revenue Accounting window, 8 – 43

W

WBS. *See* work breakdown structure

windows

folders in, A – 2

navigation paths to, A – 2

WIP. *See* work in process transactions

wizards, 17 – 5

work breakdown structure

report, 10 – 16

setting up, 2 – 2 to 2 – 7

viewing, 2 – 5

work in process, 11 – 23, 17 – 79

work site, location, 2 – 14

workflow. *See* Oracle Workflow

write offs, 8 – 65

write-on events, 8 – 53

Z

zoom. *See* drilldown to

