Oracle Fusion Cloud Project Management

Implementing Project Financial Management and Grants Management

25B

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Get Help

There are a number of ways to learn more about your product and interact with Oracle and other users.

Get Help in the Applications

Some application pages have help icons to give you access to contextual help. If you don't see any help icons on your page, click your user image or name in the global header and select Show Help Icons. If the page has contextual help, help icons will appear.

Get Support

You can get support at *My Oracle Support*. For accessible support, visit *Oracle Accessibility Learning and Support*.

Get Training

Increase your knowledge of Oracle Cloud by taking courses at *Oracle University*.

Join Our Community

Use *Cloud Customer Connect* to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, suggest *ideas* for product enhancements, and watch events.

Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the *Oracle Accessibility Program*. Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Share Your Feedback

We welcome your feedback about Oracle Applications user assistance. If you need clarification, find an error, or just want to tell us what you found helpful, we'd like to hear from you.

You can email your feedback to *oracle_fusion_applications_help_ww_grp@oracle.com*.

Thanks for helping us improve our user assistance!

1 Introduction

About the Guide

Welcome to the Implementing Project Financial Management and Grants Management guide.

Audience and Scope

If you're reading this guide, you're likely a project application administrator or setup user looking for concepts and procedures around:

- Implementation functionality not covered in the Getting Started with Your PPM Implementation guide such as setting up advanced features.
- Configuration of the Project Financial Management and Grants Management applications.
- Administrative components such as running scheduled processes and enabling public events.

Keep in mind that this guide doesn't contain information about:

- The initial tasks to set up the applications. See the Getting Started with Your PPM Implementation guide for this information.
- The tasks performed by project managers. See the Defining and Managing Financial Projects guide for this information.
- Configuration tasks such as adding fields and changing field labels. See the Configuring and Extending Applications guide for this information.

Related Guides

You might need additional information to implement and configure Project Financial Management and Grants Management applications.

Here's a list of guides that you might want to consult.

Guides	Description
Securing ERP	Describes how to enable user access to Oracle ERP Cloud functions and data. It helps you set up your implementation and application users, role management, location based access to name a few.
Using Functional Setup Manager	Describes how to use Functional Setup Manager to manage implementation projects, execute task lists, and migrate data between application instances.
Using Common Features	Provides help for end user tasks that are common across Oracle Applications Cloud. Some of these tasks are search, notifications and approvals, scheduled processes, business intelligence and so on.
Implementing Common Features for Financials and Project Portfolio Management	Describes tasks to configure and set up features that are common across Oracle Applications Cloud. The Application Extensions and other functional areas like Legal Structures, Users and Security, and Enterprise Profile comprise these common setup and implementation tasks.

Guides	Description
Configuring and Extending Applications	Describes how to use runtime tools such as Page Composer or flexfields to configure and extend Oracle Applications Cloud. You can configure many aspects of the application, for example the user interface, business intelligence, and data model.

Related Topics

Overview of Implementing Project Financial Management and Grants Management

The first implementation step is to configure the Project Financial Management and Grants Management offering in the Setup and Maintenance work area by selecting the relevant offering, functional areas, and features that you want to make available to implement.

To implement Project Financial Management and Grants Management, you must have the Application Implementation Consultant role (ORA_ASM_APPLICATION_IMPLEMENTATION_CONSULTANT_JOB).

Use the Project Financial Management and Grants Management offering to configure how you manage projects, including how to plan, budget, forecast, manage awards, collect costs, bill customers, and report performance.

You can implement Project Financial Management and Grants Management in the following ways:

- Using Functional Areas
- Using Implementation Projects
- Using CSV File Packages
- Using Rapid Implementation

Functional Areas

Functional areas gives you the flexibility to set up different functional areas of the offering at different times. You can begin with setup of the functional areas you require immediately and then set up other functional areas as you adopt additional offering functionality over time. This setup process is ideal for an enterprise looking for a simpler implementation approach.

Let's take a look at the project-related functional areas available in this offering.

Functional Area	Description
Project Organizations	Configure how you manage project units, project classifications, organization hierarchies, and business unit options.
Project Foundation	Configure how you manage project organizations, create projects, plan project tasks, and review project details. This common foundation is shared across the Project Financial Management applications.

Functional Area	Description
Burdening	Configure options used to calculate, group, and apply indirect costs to project expenditure items to report and account for the total cost of a project.
Grants Management Foundation	Configure how you create and maintain awards, award funding, and award projects.
Project Control	Configure how you monitor project execution, progress, budgeting, and forecasting.
Project Billing	Configure how you invoice customers and recognize revenue for project contracts, including contract management, intercompany billing, and the calculation of estimated taxes on invoices.
Project Costing	Configure how you collect, monitor and influence the costs associated with the delivery of the project and management of capital assets.
Project Costing - Project Costing Base	Configure how you collect, monitor, and influence the costs associated with the delivery of the project.
Project Costing - Capital Projects	Configure how you record asset costs, calculate capitalized interest, and create events to group costs and assets.
Project Billing - Project Contracts	Configure the funding and billing relationships between the external parties who require the project and the parties who deliver the project.
Project Billing - Project Billing Base	Configure how you invoice customers and recognize revenue for project contracts.
Project Billing - Internal Project Billing	Configure how you use internal invoices to share costs and revenue across projects and organizations.
Project Performance Reporting	Configure how you collect and review project performance data against defined performance areas.
Budgetary Control and Encumbrance Accounting	Enable budgetary control with or without encumbrance accounting in any part of your organization. **Note:** This enterprise-level functional area option is typically used by public sector customers.
Project Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project management data.
Project Revenue and Billing Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project revenue and billing data.
Project Performance Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project performance data.
Project Control and Costing Business Intelligence Analytics	Enable business intelligence reporting and analytics capabilities for project control and costing data.
Project Accounting	Configure subledger accounting and set up subledger accounting rules for Project Financial Management.

The following functional areas are also in the Project Financial Management and Grants Management offerings, but aren't unique to the offering:

- Initial Users
- Enterprise Profile
- Legal Structures
- Financial Reporting Structures
- Organization Structures
- Workforce Structures
- Users and Security
- Transaction Tax
- Transactional Business Intelligence

Implementation Projects

Using this method, you create an implementation project to generate a list of setup tasks, assign tasks to various users who are responsible for managing setup data, and monitor progress of the completion of the setup tasks. This method is best suited to manage setup as a project by assigning responsibility of managing setup data to a broad group of users while monitoring their progress.

Here's the table that describes the tasks lists that are available to you when you enable all functional areas and features.

Task List	Description
Define Initial Users for Project Financial Management	Populate the product tables with the users and roles held in LDAP and then create and provision job and data roles for the initial users.
Verify Grants Management Offering Implementation Status	Verify that the implementation status of the Grants Management offering is set to In Progress or Implemented. The implementation status enables the grants functionality throughout Oracle Fusion Project Portfolio Management applications.
Define Enterprise Profile for Project Financial Management	Access your enterprise organization, such as legal entities, legal jurisdictions and authorities, and business units, and specify their use in Project Financial Management applications.
Define Financial Reporting Structures for Project Financial Management	Define the accounting configuration and chart of accounts that serve as a framework for how financial records are maintained for an organization.
Define Organization Structures for Project Financial Management	Configure business units for controlling transactions and workforce structures for managing the enterprise.
Define Project Organizations	Manage the organizations that own, control, or contribute to projects, including the project units and the project and business unit implementation options used by Project Financial Management.
Define Users and Security for Project Financial Management	Define and assign security policies and data roles to enable users to perform functions related to their job roles.
Define Project Foundation Configuration	Configure all foundation components for creating and maintaining projects in Oracle Fusion Project Portfolio Management.

Task List	Description
Define Project Control Configuration	Configure Oracle Fusion Project Control to monitor project execution, progress, budgeting, and forecasting.
Define Project Costing Configuration	Configure Oracle Fusion Project Costing to collect, monitor, and influence the costs associated with the delivery of the project.
Define Project Billing Configuration	Configure Oracle Fusion Project Billing to invoice customers and recognize revenue for project contracts.
Define Project Performance Reporting Configuration	Configure Oracle Fusion Project Performance Reporting to collect and review project data against defined performance areas.
Manage Project Templates	Manage templates to quickly create projects that share common features, attributes, and options.
Define Budgetary Controls for Project Financial Management	Configure the applicability of budgetary control on various business process flows, and set up the business rules to enforce budgetary control.
Define Subledger Accounting Rules for Project Financial Management	Configure subledger accounting and set up subledger accounting rules for Project Financial Management.
Define Transactional Business Intelligence Configuration	Define the configuration for Oracle Transactional Business Intelligence to enable business intelligence reporting with the Oracle Fusion Applications.

CSV File Packages

To create or update setup data in bulk, use the export and import of CSV file packages. Use CSV file packages to manage setup data of a specific task or a group of tasks associated with a functional area or offering.

In the Setup and Maintenance work area, from the Actions menu, use the **Export to CSV File** and **Import to CSV File** links to edit and upload the CSV files with the set up data.

Rapid Implementation

Use this feature to quickly set up the Project Financial Management or Grants Management offerings by populating and loading the Rapid Implementation for Project Financial Management Applications macro-enabled Excel spreadsheet.

The table lists the Rapid Implementation tasks included in the Define Project Financial Management Configuration for Rapid Implementation task list.

Task	Description
Create Project Financial Management Setup Data	Use this task to download the rapid implementation spreadsheet. After downloading the rapid implementation spreadsheet you can start entering your setup data.

Task	Description
Load Project Financial Management Setup Data	Use this task to load the setup data into the application.

Related Topics

Rapid Implementation of Project Financial Management Applications

Project application administrators can use the rapid implementation feature to quickly set up the Project Financial Management offering. Rapid implementation minimizes the overall time and effort for your implementation by avoiding intense data entry.

This spreadsheet has a worksheet for key setup object or group of setup objects. The setup includes key business objects and tasks, such as resources, burdening, and subledger accounting.

The rapid implementation feature enables you to:

- Define the most important attributes that are required to set up the Project Financial Management offering using the ProjectsDataUpload.xlsm spreadsheet. The spreadsheet has worksheets for key business objects and the most important attributes you must define. Additional attributes are automatically populated during the upload process.
- Implement the common best practices as default setup options. You can disable any value that isn't applicable to your organization.
- Set up project organizations for simple organization structures that don't require organization hierarchies such as, capitalized interest.
- Reduce the need for application domain experts. Enter the setup data into the spreadsheet and upload the data without any technical training.

Before You Begin

- Set up chart of accounts, legal entities, ledgers, and business units as part of Oracle Fusion General Ledger setup.
- Set up workers in HCM.
- If your business units own projects or incur project costs, you must also enter them as departments. You can create and classify these departments as Project Expenditure Organization and Project and Task Owning Organization using the HCM Data Loader.
- If you need project organizations with hierarchies, use the Manage Organization Hierarchies and Classifications to set up hierarchies.
- Optionally, set up jobs. If there are any jobs in the job rates worksheet which don't exist in the application, then the jobs are created automatically when you upload the spreadsheet.
- Create Units of Measure other than currency and hours.

Use Rapid Implementation

Download the **Rapid Implementation for Project Financial Management Applications** spreadsheet from the Setup and Maintenance work area. Search for the **Define Project Financial Management Configuration for Rapid Implementation** task list.

1. Prepare the set up data in the spreadsheet to upload information such as project organizations, project types, expenditures types, and subledger accounting.
    a. Navigate to Setup and Maintenance work area and search for the **Create Project Financial Management Setup Data in Spreadsheet** task.
    b. Click **Create Project Financial Management Setup Data in Spreadsheet** to download the **ProjectsDataUpload.xlsm** (Rapid Implementation for Project Financial Management Applications) spreadsheet.
    c. Open the spreadsheet. If a security warning is displayed, click **Options**, select **Enable this content**, and click **OK**.
    d. Review the instructions on the **Projects Workbook Instructions** worksheet.
    e. Open the **Options** worksheet. Select the required options on the worksheet and then click **Update Spreadsheet**. This shows or hides spreadsheet columns based on your selections. For example, if you select Yes for Burdening, the Burden Structure and Burden Schedule worksheets are displayed.
    f. Review all the worksheets and enter the data as per your requirements. Review the description on each worksheet for additional information.
    g. Save the ProjectsDataUpload.xlsm spreadsheet on your desktop.
2. After you prepare setup data, use the ProjectsDataUpload.xlsm file to generate a compressed file that contains all the CSV files that are used to load the data.
    a. Open the ProjectsDataUpload.xlsm file.
    b. Open the Projects Workbook Instructions worksheet and then click **Generate CSV File**.

    > **Note:** If a warning is displayed indicating a problem with the data, click OK to view the Validation Report worksheet. Fix the errors by entering valid data. Review the description on each worksheet for additional information. Return to the Project Workbook Instructions worksheet and click Generate CSV File to validate the updated data.

    c. Save the ProjectsWorkbook compressed file and click **OK**.

    > **CAUTION:** Don't make any changes to the compressed file as this may cause the upload process to fail.

3. Upload the compressed file to load setup data into the application.
    a. Navigate to the Setup and Maintenance work area and search for the **Load Project Financial Management Setup Data** task.
    b. Click **Load Project Financial Management Setup Data**.
    c. Upload the **ProjectsWorkbook** compressed file and then click **Submit**.
4. Review the output of the Load Project Financial Management Setup Data process for any errors that occurred during the load process. If there are any errors, correct the data in the spreadsheet, generate the CSV files, and load the ProjectsWorkbook compressed file again. You can load the spreadsheet multiple times until you correct all errors.

After the upload completes, the offering is configured based on the setup information in the spreadsheet. You can upload the spreadsheet multiple times during the initial implementation until your setup is complete. But once the

users start performing transactions or after you perform additional configuration from the application, don't use the spreadsheet for updating settings because subsequent uploads can reset the values.

After You Complete

- Create project templates and manage user access.
- You can enter and account transactions immediately after creating project templates.

2 Project Organizations

Set Up Organizations

In this example, you will understand how you can set up organizations to use in the application.

To set up organizations for projects, you must complete the following tasks:

- Select the organization hierarchy type
- Create organization hierarchy
- Classify organizations
- Select organization hierarchies for the business unit
- Create project unit and configure implementation options for the project unit.
- Associate project units with business units
- Run the process to maintain project organizations

Before You Begin

Verify that you have completed the following prerequisite steps.

1. Create organization hierarchy type in HCM application.
2. Create organizations using HCM applications. For this example, create Vision Operations as a Business Unit, Operations East and Operations West as Departments.
3. Enable the Project Accounting business Unit function for all project business units.

Select the Organization Hierarchy Type

Select the organization hierarchy type, which enables you to assign organization hierarchies, such as the project and task-owning organization hierarchy and project expenditure organization hierarchy, to business units. Also, many organization classifications are available but all may not be relevant to a project. Only organizations with the classifications that you select in this task are available in various work areas of the application.

1. In the Setup and Maintenance work area, go to the Manage Organization Hierarchies and Classifications task in the Project Organizations functional area.
2. On the Manage Organization Hierarchies and Classifications page, in the Organization Hierarchy Types region, select the HCM Organization Hierarchy Tree Structure option.If you use an organization hierarchy, you must use the same organization hierarchy type in both Project Financial Management applications and Oracle Fusion Global Human Resources applications.
3. On the Manage Organization Hierarchies and Classifications page, in the Organization Classification region, use the Available column to select the organizations that are relevant to projects, as shown in this table.

Field	Value
Available	Asset Organization Business Unit

Field	Value
	Partner Organization Project Expenditure Organization Project Manufacturing Organization Project Task Owning Organization Project Unit Classification

Create the Organization Hierarchy

Trees are hierarchical data models that you can use to organize data, apply business rules, control data access. You can use the hierarchy to manage data at various levels of the organization.

1. In the Setup and Maintenance work area, go to the Manage Organization Trees task in the Workforce Structures functional area.
2. On the Manage Organization Trees page, click **Create Tree**.
3. On the Specify Definition Page, enter the following values and Click **Next**.

Field	Value
Name	Corporate Tree Structure
Code	Corporate Tree Structure

4. On the Specify Labels page, click **Next**.
5. On the Specify Access Rules page, click **Submit**. The application creates a tree with name Corporate Tree Structure.
6. On the Manage Organization Trees page, search for Corporate Tree Structure tree.
7. Select the Corporate Tree Structure row and click **Create Tree Version**.
8. On the Specify Definition page, enter the following details and click Next.

Field	Value
Name	Corporate Tree Structure Version 1
Effective Start date	5/16/2019

9. The application displays a confirmation message. Click **OK** to create nodes within the tree version.
10. On the Specify Nodes page, click **Add**. And then on the Add Tree Node window, click **Search**.

11. On the Search Node window, enter Vision Operations in the Name field and click **Search**.
12. From the Search Results, select Vision Operations with classification as Business Unit and Click **Add Tree Node**. On the Specify Nodes page, you can see the Vision Operations Node.
13. Select the Vision Operations Node row and click **Add** to add a child node.
14. On the Add Tree Node window, click **Search**. On the Search Node window, enter Operations East in the Name field and click **Search**.
15. From the Search Results, select Operations East with classification as Department and Click **Add Tree Node**. On the Specify Nodes page, you can see the Operation East node created under the Vision Operations node. Similarly, Create Operations West node under Vision Operations node.
16. Click **Submit**. Click **OK** on the confirmation message.
17. Select the Corporate Tree Structure Version 1 row and from the Actions menu, click Set **Status Active**. When you click Active, the application displays Manage Organization Trees page.
18. On the Manage Organization Trees page, click **Online Audit**. Once the audit completes to 100%, click OK.
19. Click **Done**.
20. Select the Corporate Tree Structure Version 1 row and from the Actions menu, click **Flatten Row Flattening**. Row flattening is done to denormalize the tree. When you click Row Flattening, the application displays Manage Organization Trees page.
21. On the Manage Organization Trees page, click **Online Flattening**. Once the flattening completes to 100%, click OK.
22. Click **Done**. The organization hierarchy is ready to use in the application.

    Similarly, create another organization hierarchy named Organization Tree Structure if you want to use different hierarchies for project and task owning organizations and expenditure organizations.

Classify Organizations

Use the Manage Project Organization Classifications task to classify organizations as a project and task owning organization or to incur expenses. These settings are used during the project creation flow to restrict the list of organizations that can own the project.

1. In the Setup and Maintenance work area, go to the Manage Project Organization Classifications task in the Project Organizations functional area.
2. On the Manage Project Organization Classifications page, in the Search region, select Department in the Classification field, enter current date in Effective Date field, and click **Search**.
3. In the Search Results region, select Operations East and Operations West rows and click **Edit**.
4. On the Edit Project Organization Classifications page, in the Review Selected Organizations section, click **Continue** to enable the Classify Organizations section.
5. In the Classify Organizations section, complete the fields, as shown in this following table.

Field	Value
Classify as Project Task Owning Organization	Selected
Allow indirect projects (Using this option, organizations can own projects that are used to collect and track costs for overhead activities.)	Selected

Field	Value
Allow projects enabled for capitalization	Selected
Allow projects enabled for billing	Selected
Classify as Project Expenditure Organization	Selected

6. Click **Save and Continue**.

> **Note:** If later you create new organizations under the existing organization structure then you can use the Manage Project Organization Classifications task to also add these new organizations to the existing tree structure and run the Maintain Project Organizations process in a single guided flow.

Select Organization Hierarchies for the Business Unit

Use the Configure Project Accounting Business Function task to specify an entire organization hierarchy to associate with the business unit by selecting the top node on the tree, rather than individually associating organizations with the business unit. Specify part of an organization hierarchy by selecting an organization at any level of the hierarchy as the starting node on the tree. Oracle Fusion Project Portfolio Management associates all organizations in the hierarchy from the starting node down with the business unit.

1. In the Setup and Maintenance work area, go to the Configure Project Accounting Business Function task in the Project Organizations functional area.
2. On the Configure Project Accounting Business Function page, in the Basic tab, in the Project Task Owning Organization region, enter the following values.

Field	Value
Tree Name	Corporate Tree Structure
Tree Version Name	Corporate Tree Structure Version 1
Organization	Vision Operations

3. If you want different hierarchy structure for cost owning organization, then enable the **Use different details for project expenditure organization** option.
4. On the Basic tab, in the Project Expenditure Organization region, enter the following values.

Field	Value
Tree Name	Corporate Tree Structure

Field	Value
Tree Version Name	Corporate Tree Structure Version 1
Organization	Corporate Operations

5. Click **Save and Close**.

Create and Configure Project Unit

To create a project unit organization, either enable an existing organization as a project unit or create a new organization as a project unit. After the project unit is enabled for an organization, the project unit appears in searches on the Manage Project Units page.

Note: If you don't configure Manage Project Unit task, your project unit won't appear in the list of available projects in the Configure Project Accounting Business Function task.

1. In the Setup and Maintenance work area, go to the Manage Project Unit Organizations task in the Project Organizations functional area.
2. On the Manage Project Unit Organizations page, enter the following values.

Field	Value
Create new	Selected
Code	PROJECT_OPS
Name	Project Operations

3. Click **Save and Close**.
4. In the Setup and Maintenance work area, go to the Manage Project Units task in the Project Organizations functional area.
5. Search for Project Operations, select the row and click **Edit**.
6. On the General Properties page, enter the following values.

Field	Value
Default Set	US Department Set
Method	Manual
Type	Alphanumeric

Field	Value

7. Click **Next**.
8. On the Related Business Units page, select the business unit you want to associate with Project Operations. If a business unit is not configured, then skip the Related Business Units step and associate the business unit as part of the Configure Project Accounting Business Function setup task.
9. Click **Next**.
10. On the Reporting Setup page, select the options for reporting as required.
11. Click **Save and Close**.

Associate Project Units with Business Units

1. In the Setup and Maintenance work area, go to the Configure Project Accounting Business Function task in the Project Organizations functional area.
2. On the Configure Project Accounting Business Function page, select the Advanced tab.
3. In the Project Units section, from the Available Project Units column, select the project units to associate with this business unit according to the following table.

Field	Value
Available Project Units	Project Operations

4. Click the right arrow to move the selected items to the Selected Project Units column.
5. Click **Save and Close**.

Run the Maintain Project Organizations Process

You must run the Maintain Project Organizations process to ensure the organization changes are complete after you:

- Classify organizations as project and task owning or project expenditure owning organizations.
- Add or classify new organizations.
- Change organization hierarchy type.

Use the following steps to run the process.

1. Navigate to the Scheduled Processes page.
2. Click **Schedule New Process**.
3. Search for and select the Maintain Project Organizations process.
4. In the Process Details window, click **Submit**.

Load Project Organizations Using HCM Data Loader

In this example, you will understand how you can use the HCM Data Loader to load project organizations.

There are three classifications of project organization:

1. Project Unit
2. Project Expenditure Organization (PEO)
3. Project Task Owning Organization (PTO)

You can either use the Setup and Maintenance UI or HCM Data Loader (DL) to load project organizations.

Use the Setup and Maintenance UI in the following scenarios:

- When you create or modify a small number of project organizations.
- Requiring immediate organizational updates.
- Preferring a user-friendly interface.

Use the HCM Data Loader in the following scenarios:

- When you create or manage many project organizations, for example, during the implementation of Project Management Cloud or to build an integration.
- Requiring efficient bulk data processing.

To load project organizations using HCM DL, perform the following steps:

1. Familiarize yourself with HCM DL, and perform the prerequisite HCM DL setup steps. For more information on loading data using HCM DL, see the Oracle Fusion Cloud HCM, HCM Data Loader guide.
2. Prepare Organization.dat and OrganizationTreeNode.dat files as required.
    - An organization has to have at least one classification. You can add a Project Unit classification to an organization at the same time it's created.
    - Conversely, you can add PEO and PTO classifications only to an existing organization with at least one other classification, for example, an organization classified as a Department, Division, and so on.
    - You can optionally add Project Units, PEOs, and PTOs to trees.
    - Pay careful attention to date formats and ensure they match your HCM DL environment.
3. Zip the Organization.dat and OrganizationTreeNode.dat files and load them using HCM DL.
4. Run HCM DL post-load processes. For more information, see the section Postload Processing in the Oracle Fusion Cloud HCM, HCM Data Loader guide.

The following is a sample **Organization.dat** HCM DL file for creating or updating an organization classified as a **project unit**:

```
METADATA|Organization|SourceSystemOwner|SourceSystemId|EffectiveStartDate|
EffectiveEndDate|Name|ClassificationCode
MERGE|Organization|SOURCE_SYSTEM_OWNER|PU1|01/01/0001||My Project Unit Name|
PRJ_PROJECT_UNIT
METADATA|OrgInformation|SourceSystemOwner|SourceSystemId|
EffectiveStartDate|EffectiveEndDate|OrganizationId(SourceSystemId)|
FLEX:PER_ORGANIZATION_INFORMATION_EFF|EFF_CATEGORY_CODE|OrgInformationContext|
projectUnitCode(PER_ORGANIZATION_INFORMATION_EFF=PRJ_PU_ATTRIBUTES)
MERGE|OrgInformation|SOURCE_SYSTEM_OWNER|PU1_INFO|01/01/0001||PU1|PRJ_PU_ATTRIBUTES|
PRJ_PU_ATTRIBUTES|PRJ_PROJECT_UNIT|PU1_CODE
METADATA|OrgUnitClassification|SourceSystemOwner|SourceSystemId|EffectiveStartDate|
EffectiveEndDate|OrganizationId(SourceSystemId)|ClassificationCode|SetCode|Status
MERGE|OrgUnitClassification|SOURCE_SYSTEM_OWNER|PU1_CLASS|01/01/0001||PU1|
PRJ_PROJECT_UNIT|COMMON|A
```

The following is a sample **Organization.dat** HCM DL file for loading an organization ('My Organization Name') classified as a **department** (including cost center and company GL information, which you can use in project-related SLA rules):

```
METADATA|Organization|SourceSystemOwner|SourceSystemId|EffectiveStartDate|
EffectiveEndDate|Name|ClassificationCode
MERGE|Organization|SOURCE_SYSTEM_OWNER|DEP1|01/01/0001||My Organization Name|DEPARTMENT
METADATA|OrgInformation|SourceSystemOwner|SourceSystemId|
EffectiveStartDate|EffectiveEndDate|OrganizationId(SourceSystemId)|
FLEX:PER_ORGANIZATION_INFORMATION_EFF|EFF_CATEGORY_CODE|OrgInformationContext|
_COMPANY(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
_COMPANY_VALUESET_Display(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
_COST_CENTER(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
_COST_CENTER_VALUESET_Display(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
_COST_CENTER_MGR(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
recordIdentifier(PER_ORGANIZATION_INFORMATION_EFF=PER_GL_COST_CENTER_INFO)|
_MANAGER(PER_ORGANIZATION_INFORMATION_EFF=PER_ORG_MANAGER_INFO)
MERGE|OrgInformation|SOURCE_SYSTEM_OWNER|DEP1_GL_INFO|01/01/0001||DEP1|
PER_GL_COST_CENTER_INFO|DEPARTMENT|PER_GL_COST_CENTER_INFO|11|GL_COMPANY|789|GL_CC|5678|1|
METADATA|OrgUnitClassification|SourceSystemOwner|SourceSystemId|EffectiveStartDate|
EffectiveEndDate|OrganizationId(SourceSystemId)|ClassificationCode|SetCode|Status
MERGE|OrgUnitClassification|SOURCE_SYSTEM_OWNER|DEP1_DEPT|01/01/0001||DEP1|DEPARTMENT|
COMMON|A
```

The following is a sample **OrganizationTreeNode.dat** HCM DL file for adding the above organization into a **tree** version (as identified by a tree structure code, tree code, and tree version name), along with an existing organization as its parent ('My Parent Organization', which is classified as a Division). You can load the file in the same zip file as the Organization.dat file above; HCM DL will process them in the correct order:

```
METADATA|OrganizationTreeNode|TreeStructureCode|TreeCode|TreeVersionName|OrganizationName|
ClassificationCode|ParentOrganizationName|ParentClassificationCode
MERGE|OrganizationTreeNode|PER_ORG_TREE_STRUCTURE|My Tree Code|My Tree Version Name|My
 Parent Organization Name|HCM_DIVISION||
MERGE|OrganizationTreeNode|PER_ORG_TREE_STRUCTURE|My Tree Code|My Tree Version Name|My
 Organization Name|DEPARTMENT|My Parent Organization Name|HCM_DIVISION
```

The following is a sample **Organization.dat** HCM DL file for adding **PEO** and **PTO** classifications to the above department (you can load this only after the above department is created). The PTO is enabled for all project-type classes (contract, capital, indirect). The effective dates should match those of the organization record.

```
METADATA|OrgInformation|FLEX:PER_ORGANIZATION_INFORMATION_EFF|
allowIndirectProjects(PER_ORGANIZATION_INFORMATION_EFF=Project Type Class Information)|
allowProjectsEnabledForCapital(PER_ORGANIZATION_INFORMATION_EFF=Project Type Class
 Information)|allowProjectsEnabledForBilling(PER_ORGANIZATION_INFORMATION_EFF=Project
 Type Class Information)|EffectiveStartDate|EffectiveEndDate|ClassificationCode|
OrgInformationContext|EFF_CATEGORY_CODE|SequenceNumber|SourceSystemOwner|SourceSystemId|
OrganizationId(SourceSystemId)
MERGE|OrgInformation|Project Type Class Information|Y|Y|Y|01/01/0001||PA_PROJECT_ORG|
Project Type Class Information|PA_PROJECT_ORG|DEP1|1|SOURCE_SYSTEM_OWNER|DEP1_PTOO_INFO|
DEP1
METADATA|OrgUnitClassification|SourceSystemOwner|SourceSystemId|EffectiveStartDate|
EffectiveEndDate|OrganizationId(SourceSystemId)|ClassificationCode|CategoryCode|SetCode|
Status
MERGE|OrgUnitClassification|SOURCE_SYSTEM_OWNER|DEP1_PTOO|01/01/0001||DEP1|PA_PROJECT_ORG|
PA_PROJECT_ORG||A
MERGE|OrgUnitClassification|SOURCE_SYSTEM_OWNER|DEP1_PEO|01/01/0001||DEP1|
PA_EXPENDITURE_ORG|NO_EFF_CATEGORY||A
```

Considerations for Implementing Project Financial Management Without an Organization Hierarchy

If you have a simple organization structure and don't need the advanced functionality that uses organization hierarchies, such as capitalized interest rate schedules, you can implement Project Financial Management without an organization hierarchy.

Not having an organization hierarchy facilitates quick implementation and provides a simplified user experience.

Burden Schedules

You can create burden schedules without an organization hierarchy and also assign multipliers to each organization individually or a single multiplier to all the organizations.

Capitalized Interest Rates

Capitalized interest rates require a department or organization hierarchy. When the hierarchy type is None, you can't create new capitalized interest rate schedules because the Default Organization Hierarchy and Organization Hierarchy lists on the Manage Capitalized Interest Rate Schedules page don't display any values.

Using Capitalized Interest Rates

Prior to creating a Capitalized Interest Rate Schedule for No Organization Hierarchy, you must:

1. Update the Manage Organization Hierarchies and Classifications - Organization Hierarchy Type to None.
2. Run the Maintain Project Organization process.
3. Define a Rate Multiplier for each organization with projects that have transactions eligible for capital interest calculation on the Manage Capitalized Interest Rate Schedules page.
4. Select **Build Rate Schedule** from the Manage Capitalized Interest Rate Schedule page.

Upload Configuration Packages

You can't use the import configuration packages process to change the hierarchy type in the target environment. To change the organization hierarchy type, you must use the Manage Organization Hierarchies and Classifications task in the Setup and Maintenance work area.

You can import all burden schedules regardless of the hierarchy type used in the target environment. However, if a burden schedule uses a hierarchy, the hierarchy must exist in the environment. You can only import capitalized interest rate schedules when there is a department or organization hierarchy type in the target environment.

Impact on Existing Transactions

You can change the organization hierarchy type using the Manage Organization Hierarchies and Classifications task.

When you change the hierarchy type to None then the:

- Existing burden schedules continue to use their original hierarchy. However, you can't select hierarchies with the old hierarchy type when you create new burden schedules.

- Organization Hierarchy and Hierarchy Version for project and task owning organization hierarchy and the expenditure organization hierarchy for all business units also change to No.

If you're changing the organization hierarchy type from None to a Department or Organization Hierarchy, you must ensure that the new organization hierarchy includes all the organizations that are used in existing transactions.

> **Note:** You must run the Maintain Project Organizations process after you update project organization classifications or hierarchies.

Business Unit Setup

You must verify the business unit setup if the organization hierarchy list is empty or it's missing when you try to create a project or project template.

If the organization list is empty, the organization setup is incomplete and you must verify if the tree version is active and is denormalized using the Row Flattening action. If one or more organizations are missing, you must verify if the organization is added to the tree and classified as a project and task owning organization.

In any case, you must run the Maintain Project Organizations process after you update the set up.

FAQs for Project Organizations

What happens if I disable an organization as a project expenditure organization that has pending transactions?

You may encounter errors in transaction processing. Enable the organization as project expenditure organization and process the outstanding transactions. Disable the organization as project expenditure organization after the transactions processing is complete.

If you disable the organization as project and task owning organization you only prevent the organizations from appearing in the relevant project and task creation flows. You can enable or disable an organization as a project and task owning organization anytime.

> **Note:** You must run the Maintain Project Organizations process each time you enable or disable the organization as a project expenditure or project and task owning organization.

Why isn't the updated legal entity name reflecting in the Manage Project Organization Classification page?

If the effective date you are using to view the data on the Manage Project Organization Classification page is before the effective start date of the Legal Entity name change, the system will display the old Legal Entity name as it was valid at that point in time. Conversely, if the effective date used for viewing is on or after the date the Legal Entity name change became effective, the new name will be displayed.

Project Unit Options

Manage Project Unit Options

Use the Manage Project Unit Options setup task to configure general and reporting options for your project unit. In this example, you're setting up the options for the Project Operations project unit.

Here's a summary of the decisions you made about setting up the options for the Project Operations project unit.

Decisions to Make	In This Example	More Information
What's the default reference set for projects in this project unit?	Enterprise Set	The set for each reference data object comes from the default set that's specified in the Manage Project Units: General Properties page. Use the Manage Project Unit Set Assignments task to assign reference sets to project units. These assignments govern the application-shared reference data across different lines of business in a company.
What method should I use for project numbering?	Method: Manual Type: Alphanumeric	The project numbering methods available are Manual or Automatic. The default value is Automatic. If you select Manual, then project managers and project administrators must enter the project number when creating the project. The project number can be either alphanumeric or numeric. If you want the application to assign numbers to projects, then select Automatic. Enter the first project number, and the application will use subsequent numbers during project creation.
Which business units should I associate with this project unit?	Corporate Enterprise Corporate Manufacturing Internal Systems and Support	Select the business units that are accountable for financial transactions for projects in this project unit.
What transactions can I include in project performance data summarization?	Requisitions Purchase orders Supplier invoices Other commitments	Select the commitment types that you want to include in the project performance data summarization.

Before You Start

Ensure that the following setup tasks are complete before you start setting up options for a project unit:

1. Set up organization hierarchies, organization classifications, and organizations.
2. Enable the Project Accounting business unit function for all project business units.
3. Classify organizations as project units.

Set Up General Properties

1. Use the **Manage Project Unit Options** task to navigate to the Manage Project Units page.
2. In the Search Results section of the Manage Project Units page, select the **Project Operations** project unit, and click **Edit**.
3. On the Manage Project Units: General Properties page, complete the fields as follows.

List of Values to be Entered in the Manage Project Units: General Properties page

Field	Value
Default Set	Enterprise Set
Project Numbering - **Method**	Manual
Project Numbering -**Type**	Alphanumeric

4. Click **Next**.

Set Up Related Business Units

1. On the Manage Project Units: Related Business Units page, select the business units in the **Available Business Units** column to associate them with this project unit.

Field	Value
Available Business Units	Corporate Enterprise Corporate Manufacturing Internal Systems and Support

2. Click the right arrow to move the selected business units to the **Selected Business Units** column.
3. Click **Next**.
   The Commitments and Planning Account Allocation sections appear.

Set Up Reporting Options

1. In the Commitment section of the Manage Project Units: Reporting Setup page, use the **Include in Summarization** check box to indicate whether you want to include project commitment details of a specific

commitment type in summarization reports associated with this business unit. If you select this check box against a commitment type, the **Status Value** drop-down list associated with that commitment type is enabled. You can then select the status values that you want to include into your report for that commitment type. You can either select **Approved** or **All**. If you choose **Approved**, you will be able to see only approved commitments. If you choose **All**, you will be able to see all commitments, both approved and unapproved.

On the Manage Project Units: Reporting Setup page, Commitments region, complete the fields as follows:

Field	Include in Summarization Value	Status Value
Requisitions	Selected	All
Purchase orders	Selected	All
Supplier invoices	Selected	All
Other commitments	Not selected	Not applicable

1. In the Planning Amount Allocation region, complete the field as follows.

Field	Value
Basis	Period start date

2. Click **Save and Close**.
3. Click **Done**.

Run the Maintain Project Organizations process from the Scheduled Processes page after you:

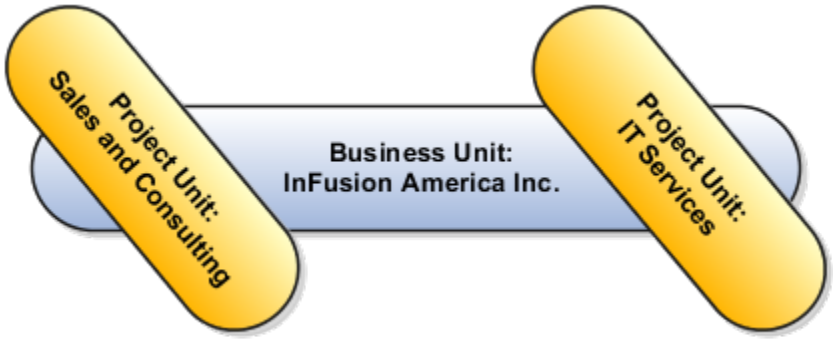
- Classify organizations as project and task owning or project expenditure owning organizations.
- Add or classify new organizations.
- Change the organization hierarchy type.

Project Unit Components

Project units are operational subsets of an enterprise that conducts business operations using projects and enforces consistent project planning, management, analysis, and reporting.

Project units often represent lines of business, such as Consulting Services, Sales, and Research and Development. You must set up at least one project unit to use in Oracle Project Portfolio Management.

Maintain independent setup data for each project unit while sharing a common approach to financial management across all project units. The following graphic shows two project units that share a common approach to financial management and data. Each project unit maintains separate reference data for managing projects.



General Properties

General property options include the default reference data set the application uses for any new reference data object associated with the project unit. You can override the default set for each reference data object. The method of project number creation, either manual or automatic, is also included in general properties.

Set Assignments

Assign sets to project units to determine how the application shares reference data across different lines of business in a company. A project unit is a set determinant for the following objects.

- Project Definition: Includes set-enabled reference data for the project definition including:
  - Class code
  - Financial plan type
- Project Transaction Types: Includes set-enabled reference data for project transactions including:
  - Project expenditure type
  - Project work type

Set assignment configuration includes the following options for each project unit.

- Reference Data Object: For the project definition and project transaction types.
- Reference Data Set Code: By default, the set for each reference data object is from the default set specified for the project unit.

Related Business Units

You associate business units with a project unit to identify the business units that are accountable for financial transactions of projects in each project unit. You can change the project unit and business unit association if you haven't used the combination on a project or project template. If a business unit isn't associated with any project unit, then the business unit is valid for all project units.

Reporting Setup

Project performance reporting configuration includes the following options for each project unit.

- Commitments to include in the summarization.
- Planning amount allocation basis for summarization.

Related Topics

- Example of Set Association with Financial Plan Types

Example of Using Multiple Project and Business Units

A project unit defines a set of rules and options for creating and managing the nonfinancial aspects of projects, such as project definition, scheduling, and reporting.

You can define one or more project units based on how granular you want to separate processing options, reference data, security, and other controls. The list of project units can be different and independent from the list of business units that perform your enterprise financials functions, such as payables and receivables.

Following are two examples of associating project units and business units.

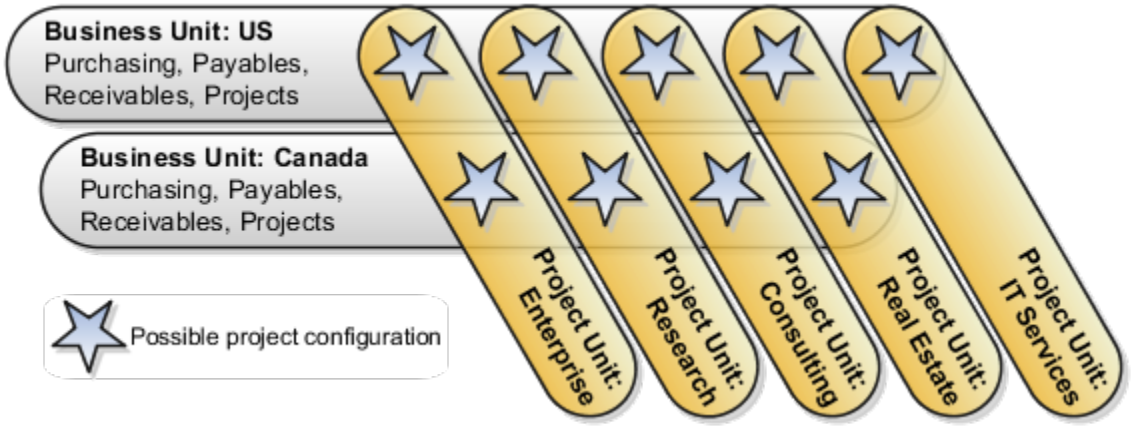
Single Project Unit with Multiple Business Units

A consulting company has offices in the US, Canada, and Mexico. Each location uses local purchasing and payables practices. The company uses projects to track time and expenses for billing through contracts. The following graphic illustrates an example of single project unit that is associated with multiple business units.

Multiple Project Units with Multiple Business Units

A products and services company has main offices in the US and a warehouse and sales office in Canada. Due to operations in two different countries, the company partitions financial data by using two business units. The research processes are the same in both countries, so a single project unit facilitates common project management practices. The company has an information technology (IT) services project unit that is associated with US business unit. It also has a sales and consulting project unit that is associated with both the US and Canadian business units. The consulting line of business uses projects to manage consulting engagements and provide billing details to contracts. The internal real estate line of business uses projects to manage the US and Canada facilities, including new construction and

repairs. The following graphic illustrates an example of multiple project units that are associated with multiple business units.



FAQs for Project Unit Options

How can I associate a business unit with a project unit?

You can associate a business unit with a project unit during the Related Business Units step of the Manage Project Units setup task if the business unit is already configured using the Configure Project Accounting Business Function setup task.

If the business unit is not configured, then you can associate a project unit with the business unit on the Project Units tab of the Configure Project Accounting Business Function page.

What happens if I change the organization hierarchy type that's available for Project Financial Management applications?

Changing the organization hierarchy type can impact existing transactions that use the hierarchy. All organizations in the previous hierarchy must exist in the new hierarchy. If you adjusted transactions, the rates and multipliers derived for an organization can be different in the new hierarchy.

If you use an organization hierarchy in Project Financial Management applications, you must use the same organization hierarchy type that you set up in Oracle Fusion Global Human Resources.

What happens if I remove organization classifications from the list of selected classifications that are available for project applications?

The organization classifications no longer appear in the list of organization values that are available for selection in the application.

Selected organization classifications on the Manage Organization Hierarchies and Classifications page are available for selection in areas of the application where a specific organization classification is not required, such as setting up capitalized interest rate schedules, burden schedules, and transfer price schedules.

What happens to project and task owning organizations and project expenditure organizations if human resource organizations are reorganized?

If you don't use organization hierarchies, the organizations of existing projects and transactions remain available as long as they are active and are classified as project and task owning organizations or as project expenditure organizations.

If you use new organization hierarchies or hierarchy versions, you must include all organizations referenced on existing projects and transactions in the new organization hierarchies or hierarchy versions.

You can use the Change Project and Task Organizations process to change the project and task owning organizations on existing projects.

Run the Maintain Project Organization process after you:

- Classify organizations as project and task owning or project expenditure owning organizations.
- Add or classify new organizations.
- Change the organization hierarchy type.

What's a project expenditure organization?

A project expenditure organization can incur expenditures for projects and be used as a planning and budgeting resource. Before you use an organization for expenditures, you must assign it to the Project Expenditure Organization classification.

If you use organization hierarchies, assign the expenditure organization to the hierarchy specified in the implementation options for the business unit.

What's a project and task owning organization?

Every project is owned by an organization that's used for reporting, security, and accounting. An organization can own specific types of projects, such as indirect projects, capital projects, billable projects, and capital contract projects.

For an organization to be eligible to be a project or task owning organization, you must assign the organization the Project Task Owning Organization classification. Also, the organization must be assigned to the hierarchy that you specify in the project implementation options for the business unit.

What's the difference between organizations and organization hierarchies?

Organizations are departments, sections, divisions, companies, or other organizational units in your enterprise. You can gather collections of organizations into organization hierarchies.

Organization hierarchies help you manage expenditure and reporting data, and coordinate the project-owning organizations in your enterprise.

During implementation, you select the organization hierarchy type for use in Project Financial Management applications. You can optionally choose not to use organization hierarchies. If you select to use a hierarchy, you select either the department hierarchy tree structure or the generic organization hierarchy tree structure. Then you assign hierarchies to the project implementation options for each business unit used in Project Financial Management applications.

> **Note:** If you use either the department or the organization hierarchy tree structure hierarchy type, you must assign the same organization hierarchy type that you set up in Oracle Fusion Global Human Resources.

What happens if I select Automatic as the project numbering method?

If you select Automatic, the application assigns numbers to projects. You enter the first project number, and the application uses subsequent numbers during project creation. The same number sequence is applied to all the projects across project units with Automatic method selected.

Suppose that you want the application to assign project numbers starting from 7 for the project units PU1 and PU2. Do the following:

- Set the project numbering method for PU1 and PU2 to Automatic.
- Enter 7 in the Next Number field.
- Create two projects A and B under PU1 and PU2 respectively.

The project number for A is 7 and the project number for B is 8.

What's the difference between the project unit organization code and name?

Typically the project unit name is logical, descriptive, and easily recognizable.

The code is a unique short name that is used internally.

Both the project unit organization code and name are used to identify the project unit.

What budgets and forecasts are included in the summarization?

Certain financial plan types are included in summarization by default, while you must manually select others.

Approved forecast and baseline budget versions of the following financial plan types are automatically included in summarization of project performance data:

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

Apart from the default financial plan types, you can include up to four others in summarization of project performance data.

What happens when I select a planning amount allocation basis for the project unit?

The Period Start Date and Period End Date options allocate amounts based on the period start and end dates. The Daily Proration option spreads plan amounts evenly across the plan.

Project Unit Set Assignments

Example of Set Association with Financial Plan Types

You associate sets with financial or project plan types so that project managers can use them to create financial plans (budget or forecast versions) or project plans for projects or project templates.

Financial or project plan types are available for selection only when projects or project templates are created for project units linked to selected sets.

The following example illustrates the relationship between financial plan types, sets, and project units. Project plan types share an identical relationship with sets and project units.

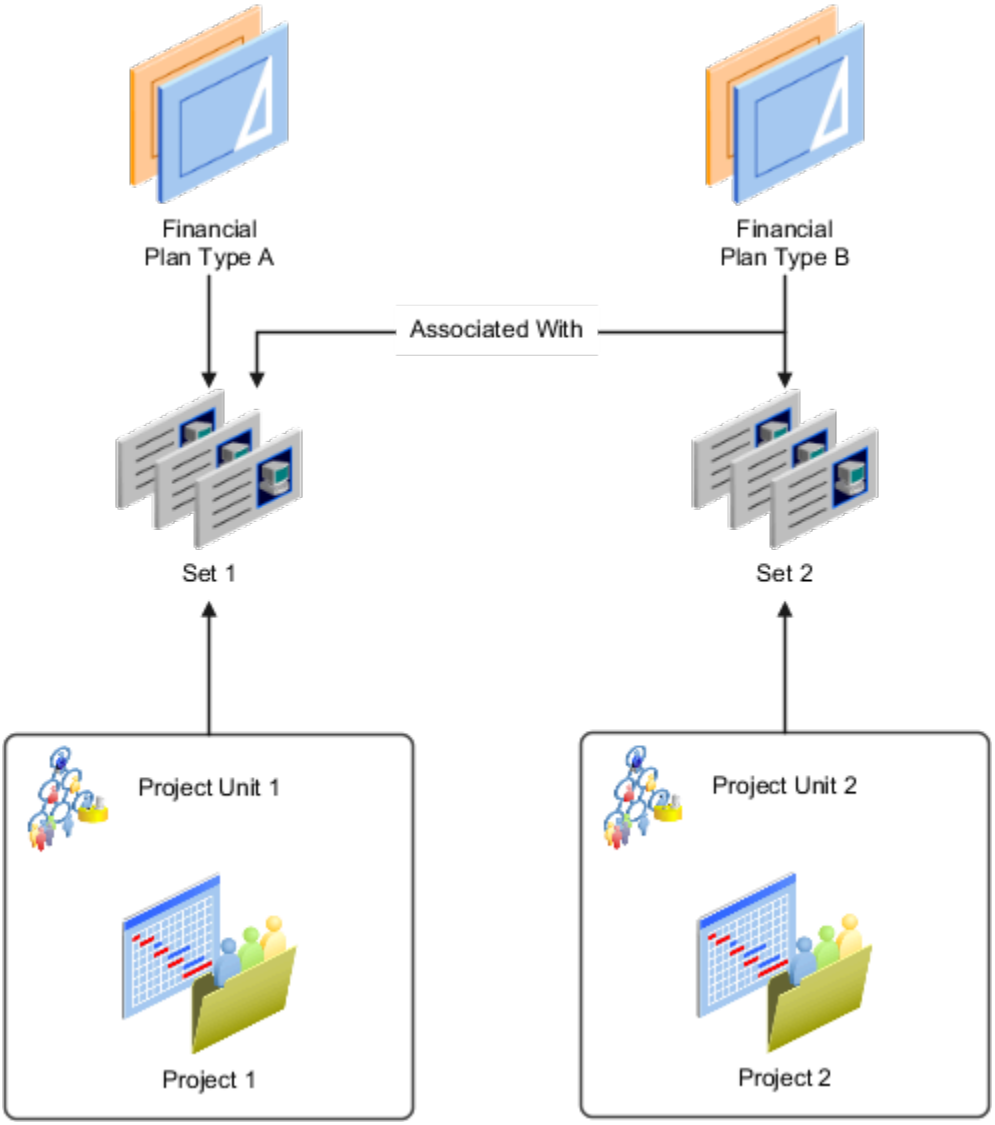
Scenario

An organization has two designated project units for project creation: Project Unit 1 and Project Unit 2. Project Unit 1 is associated with Set 1 and Project Unit 2 is associated with Set 2.

During implementation, two financial plan types were created: Financial Plan Type A and Financial Plan Type B. Financial Plan Type A is associated with Set 1. However, Financial Plan Type B is associated with both Set 1 and Set 2.

In such a case, project managers working on projects for Project Unit 1 can use only Financial Plan Type A to create financial plan versions. Project managers working on projects for Project Unit 2 can use both Financial Plan Type A and Financial Plan Type B.

The following graphic further illustrates the relationship between financial plan types, sets, and projects. Project plan types share the same relationship with sets.



Set Assignments and Project Data

Reference data set assignments determine how you share enterprise information, including project data, across organizational units. You can decide which data is global, which data can be shared by certain organizations, and which data must remain organization-specific.

Reference data sharing enables enterprises to balance autonomy and control for organizations.

Project Management applications employ two set determinants: business unit and project unit.

Business Unit as Set Determinant

Business units enable you to control and report on financial transactions, usually for specific geographical entities within the enterprise. For project management purposes, assign the Project Accounting business function to the business unit.

Business unit is a set determinant for the project-related reference data objects described in the following table.

Reference Data Object	Entities
Project Accounting Definition	Project types
Project Rates	Project rate schedules

You assign a default set to each business unit. The **Project Accounting Definition** and **Project Rates** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select project types and rate schedules that are assigned to the same set as the business unit. If you assign a common set to a rate schedule, then that rate schedule is available for use across business units.

Project Unit as Set Determinant

Use project units to enforce consistent project management practices across your enterprise. Project unit is a set determinant for the reference data objects described in the following table.

Reference Data Object	Entities
Project Definition	Class codes, financial plan types, and project plan types
Project Transaction Types	Expenditure types and work types

You assign a default set to each project unit. The **Project Definition** and **Project Transaction Types** reference data objects are automatically assigned the default set, but you can override the assignment and select a different set for each.

You can only select class codes, plan types, roles, expenditure types and work types that are assigned to the same set as the project unit. To enable expenditure types and work types for use on projects owned by a project unit, assign the set associated with the Project Transaction Types reference data object to those entities.

Related Topics

- Examples of Partitioning Project Data Using Set Determinants
- Example of Set Association with Financial Plan Types
- Options for Business Units to Work with Projects
- Project Units
- Reference Data Sharing

Examples of Partitioning Project Data Using Set Determinants

Use business units and project units to independently manage access to financial and project management data based on the unique requirements of your enterprise.

This topic illustrates the following scenarios.

1. Maintaining separate project management methodologies and data across units within an enterprise while centralizing financial management of data
2. Enforcing a single project management methodology across units within an enterprise while partitioning financial data

Note: These examples are only illustrative. Any combination of business units and project units can exist.

Using Multiple Project Units with One Business Unit

Assume that Vision Corporation is a services company with facilities across the United States. Its business is based on research and development activities and consulting practice. Each of the following lines of business use projects:

- Consulting uses projects to manage consulting engagements and provide billing details to contracts.
- Research and Development uses projects to manage design project schedules.
- Real Estate uses projects to manage facilities, including new construction and repairs.

Vision Corporation implemented project units and business units as follows:

- Project Units
  - Consulting
  - Real Estate
  - Research and Development
- Business Unit: Vision Corporation

The default sets assigned to each project unit are described in the following table.

Project Unit	Default Set
Consulting	Consulting Set
Real Estate	Real Estate Set
Research and Development	Research and Development Set

Note: The Project Definition and the Project Transaction Types reference data objects use the default set.

Vision Corporation can maintain independent setup data for each project unit, while sharing a single approach to financial management across all project units. For example, Vision Corporation uses different expenditure types for each project unit, as described in the table below.

Expenditure Type	Sets
Labor	Consulting Set Real Estate Set Research and Development Set
Airfare	Consulting Set
Hotel	Consulting Set
Equipment	Real Estate Set

The Labor expenditure type can be used for projects belonging to any project unit. However, expenditure types for airfare and hotel accommodation are used only on consulting projects.

Using Multiple Business Units with One Project Unit

Assume that Vision Corporation is a services and product development company with research and development facilities across the globe, including in the United States and Canada. Due to its international operations, you create multiple business units to segregate financial data. However, you can create a single project unit because research and development projects are similar across the enterprise. Therefore, you create a single project unit.

The enterprise structure and set assignments are described below.

- Project Unit: Research and Development
- Business Units
    - Vision United States
    - Vision Canada

The default sets assigned to each business unit are described in the following table.

Business Unit	Default Set
Vision United States	US Set
Vision Canada	Canada Set

Vision Corporation maintains independent financial data for each business unit, while employing a unified approach to project management that includes common financial types, and project plan types. The enterprise must use different resource rates in each country. The following table describes the rate schedule setup for each country.

Rate Schedule Name	Project Rates Set
Enterprise Project Rates: United States	US Set
Enterprise Project Rates: Canada	Canada Set
Common Enterprise Project Rates	Common Set

These set assignments govern how planned and actual amounts are calculated for projects. For example, when Vision Corporation defines organization costing rules for the Vision United States business unit, they can select only the Enterprise Project Rates: United States or the Common Enterprise Project Rates rate schedules.

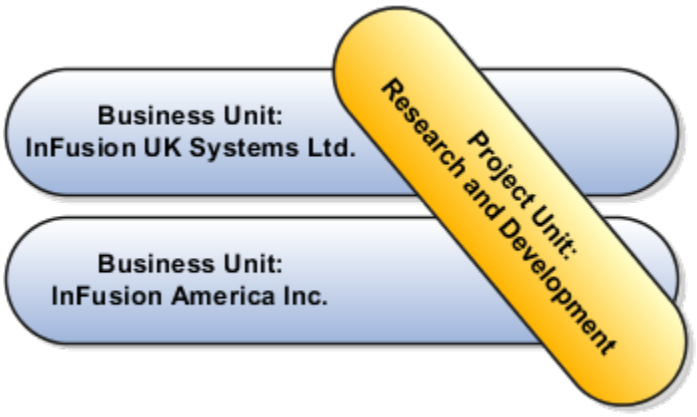
Project Business Unit Options

Options for Business Units to Work with Projects

Business units can perform many business functions. A business function represents a business process or an activity that can be performed by people working within a business unit and describes how a business unit is used.

During implementation, you must configure the Project Accounting Business Function task if you want a business unit to be used for specific project units.

You can partition financial data using business units while sharing a single approach to project management across all business units. The following graphic shows two business units, one from the United Kingdom (UK) and one from the United States (US). These business units have the same research and development processes, so a single project unit is used by both business units to facilitate common project management practices.



Project Options

Following are project setup options for each business unit that you enable for use with Oracle Fusion Project Portfolio Management.

- To own projects or tasks, an organization must be classified as project and task owning organization, belong to the hierarchy (the tree and tree version name) associated with the business unit, and be active on the current date. The project type class must be permitted to use the organization to create projects.
- Project and task owning organizations are associated with the business unit to restrict the use of these organizations in project creation flow. You can specify the business unit for the project, then can select from only those project and task owning organizations that are associated with the selected business unit. A project can be associated with only one business unit.
- Project expenditure organizations to associate with the business unit to restrict which organizations can incur costs on the project. You can either use the same organization to incur expenses or select a different one as per your business requirements.

Project Costing Options

Following are the business unit project costing implementation options.

- Option to use either the default calendar from primary ledger calendar, or a different project accounting calendar to assign to the business unit. You can change this calendar until you copy the project accounting periods.
- Default asset book for assets in the business unit.
- Overtime calculations option.
- Day of the week when the expenditure cycle begins must be provided.
- Asset retirement processing option to capture and record the cost of removal and the proceeds of sale amounts for retiring an asset.
- Separation of duties option for entering and releasing expenditure batches to ensure accuracy and accountability of project costs.
- Conversion rate type is mandatory for converting the amount on cost transactions in this business unit from the transaction currency to the ledger currency.

Cross-Charge Transaction Options

Following are business unit cross-charge transaction implementation options.

- Transfer price currency conversion date type and rate type for the business unit.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions between different organizations in the same business unit and legal entity.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions between different business units in the same legal entity.
- Borrowed and lent cross-charge transaction option for distributions to be created for cross-charge transactions for a specific receiver business unit.

Project Units

Project units are associated with business units to restrict the business units that can handle project transactions. When a project unit isn't associated with a business unit, any business unit in your enterprise can process project transactions.

Customer Contract Management

You can configure customer contract management business function properties, such as currency conversion, cross-charge transaction, and billing options, for each contract business unit.

Reference Data Sharing

Assign sets to business units to determine how reference data is shared across applications. A business unit is a set determinant for the following objects:

- Project accounting definition, including set-enabled reference data such as project type.
- Project and contract billing, including set-enabled reference data such as invoice format.
- Project rates, including set-enabled reference data such as rate schedules.

Options to Maintain Accounting Periods and Project Accounting Periods

Accounting periods are used to assign periods and dates to project transactions. Accounting periods are maintained by ledger and use the same calendar as the general ledger periods. Project accounting periods are used for project planning, costing, billing, budgeting, forecasting, and performance reporting.

Project accounting periods are maintained by business unit and typically don't use the same calendar as the accounting and general ledger periods.

Use the Configure Project Accounting Business Function task to specify whether to maintain the same accounting and project accounting periods, or define project accounting periods that have a different frequency than the accounting periods.

Maintain Same Accounting and Project Accounting Periods

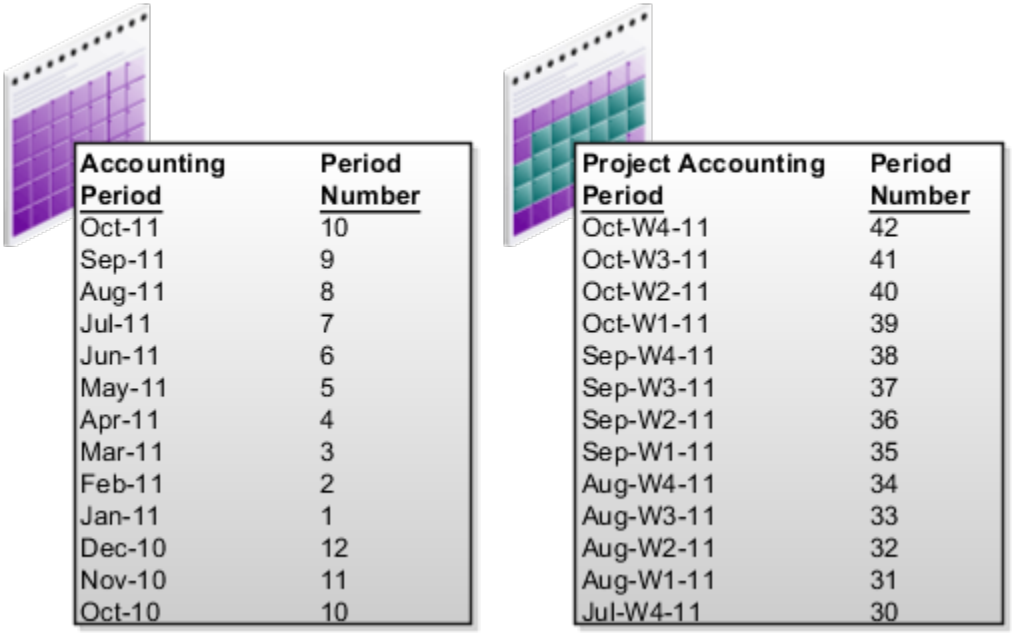
When you maintain same accounting and project accounting periods, calendar periods aren't copied to Project Financial Management applications and period information is maintained in one physical location. Use Oracle General Ledger to maintain accounting period statuses and run the processes to open and close accounting periods.

Define Project Accounting Periods Different from Accounting Periods

If you want to report project information more frequently than the accounting periods allow, you can define project accounting periods that are different from the accounting periods. Use Project Financial Management applications to maintain project accounting period statuses and run the processes to open and close project accounting periods.

Example

Let's take a look at an example using the following image.



Accounting Period	Period Number
Oct-11	10
Sep-11	9
Aug-11	8
Jul-11	7
Jun-11	6
May-11	5
Apr-11	4
Mar-11	3
Feb-11	2
Jan-11	1
Dec-10	12
Nov-10	11
Oct-10	10

Project Accounting Period	Period Number
Oct-W4-11	42
Oct-W3-11	41
Oct-W2-11	40
Oct-W1-11	39
Sep-W4-11	38
Sep-W3-11	37
Sep-W2-11	36
Sep-W1-11	35
Aug-W4-11	34
Aug-W3-11	33
Aug-W2-11	32
Aug-W1-11	31
Jul-W4-11	30

Here's the table that defines accounting period. Each month is a period with a specific number. For example, January is a period with period number one and December has a period number 12. This numbering pattern repeats every year.

Accounting Period	Period Number
Oct-11	10
Sep-11	9
Aug-11	8
Jul-11	7
Jun-11	6
May-11	5
Apr-11	4
Mar-11	3
Feb-11	2
Jan-11	1
Dec-10	12

Accounting Period	Period Number
Nov-10	11
Oct-10	10

Here's the table that defines project accounting period. Each week is a period with a specific number. For example, Jan-W1 is a period with period number one and Aug-W4 has a period number 34 as its the 34th week in the calendar. This numbering pattern repeats every year. Using this project accounting periods you can report for project information on a weekly basis.

Project Accounting Period	Period Number
Oct-W4-11	42
Oct-W3-11	41
Oct-W2-11	40
Oct-W1-11	39
Sept-W4-11	38
Sept-W3-11	37
Sept-W2-11	36
Sept-W1-11	35
Aug-W4-11	34
Aug-W3-11	33
Augt-W2-11	32
Aug-W1-11	31

Related Topics

- How can I set up project accounting periods that are different from accounting periods?
- How can I set up common accounting and project accounting periods?

FAQs for Project Business Unit Options

How can I set up common accounting and project accounting periods?

Complete the following steps:

1. Set up the general ledger accounting calendar and accounting periods.
2. During project business unit implementation, select the accounting calendar as the project accounting calendar, then select the option to maintain common accounting and project accounting periods.

How can I set up project accounting periods that are different from accounting periods?

Complete these tasks to set up project accounting periods that are different from accounting periods.

- Set up the accounting calendar and manage the accounting period statuses in Oracle Fusion General Ledger.
- During project business unit implementation, specify the project accounting calendar for each business unit.
    - Verify that the option to maintain common accounting and project accounting periods is not selected.
- Copy the accounting calendar into the project accounting period table, which copies the period start and end dates.
- Manage the period statuses for project accounting periods.

What's the difference between a project accounting period, an accounting period, and a general ledger period?

Project accounting periods are used to track budgets and forecasts, summarize project amounts for reporting, and track the project status. Project accounting periods are maintained by the business unit.

You can set up project accounting periods to track project periods on a more frequent basis than accounting periods. For example, you can define weekly project accounting periods and monthly accounting periods. If you use the same calendar as your accounting periods, the project accounting periods and accounting periods will be the same, although the statuses are maintained independently.

Accounting periods, which are used to derive accounting dates, are maintained by the ledger and use the same calendar as the general ledger periods. Period statuses for the accounting period and general ledger period are maintained independently.

You can select an option on the business unit definition to maintain common accounting and project accounting periods. This option allows the accounting period to be used as the project accounting period and you maintain only one period status.

What happens if I close an accounting or project accounting period permanently?

You can't enter any transactions in the period you have closed and you can adjust transactions in subsequent periods.

Can I change a project accounting period date range?

No. You can't change a project accounting period date range if the following conditions exist:

- The period exists in the project accounting period table.
- The period exists as an accounting period that is associated with a project accounting period.
- The period exists in project summarization tables.

3 Project Foundation Configuration: Overview

Overview of Define Project Foundation Configuration

In the Define Project Foundation Configuration activity, you configure foundation components for creating and maintaining projects in Project Financial Management.

Setup tasks in the Define Project Foundation Configuration activity are grouped into the following task lists and tasks:

Task List	Description
Define Project Foundation Common Reference Objects	Review and manage common objects, for example value sets and messages, that are used by Project Financial Management.
Define Project Calendars and Periods	Manage calendars, accounting period statuses, and project accounting period statuses used for costing, budgeting, forecasting, billing, and project performance reporting.
Define Types and Categorizations	Manage various classifications used to describe and group projects, tasks, and transactions.
Enable Automated Project Spaces	Specify whether to create or maintain project spaces automatically.
Define Project Roles	Define project roles and the business rules that control how the roles are assigned.
Define Project Resources	Define job mapping, attributes, and rate schedules for project resources.
Define Rate Schedules and Costing Rules	Define rate schedules and costing rules used for costing, billing, work planning, and financial planning purposes.
Define Project Resource Breakdown Structures	Define resource breakdown structures used for project planning, billing, and reporting.
Define Burdening	Configure options used to calculate, group, and apply indirect costs to project expenditure items to report and account the total cost of a project.
Manage Project Types	Create classifications for projects and configure basic options that are inherited by each project associated with that project type.
Define Action Controls	Define source products and configure action controls to determine which actions cannot be performed in Project Financial Management on data imported from a particular third-party source.
Distribute and Install Desktop Integrator Client	Distribute and install the software needed to integrate Excel with costing, budgeting, and forecasting.

4 Project Foundation Configuration: Types and Categorizations

Revenue Categories

Example of Revenue Categories

Your implementation team creates revenue categories to group expenditure types and event types for revenue recognition. A revenue category describes a source of your organization's revenue.

Revenue Categories for Labor and Other Transactions

The following table illustrates possible revenue categories your implementation team can define for labor and other types of revenue.

Revenue Category Name	Description
Fee	Fee Earned
Labor	Labor Revenue
Other	Nonlabor Revenue
Payment	Payment

FAQs for Revenue Categories

What's a revenue category?

Source of revenue for an organization. Revenue categories group expenditure types and event types for revenue and invoices. Also used to define accounting rules.

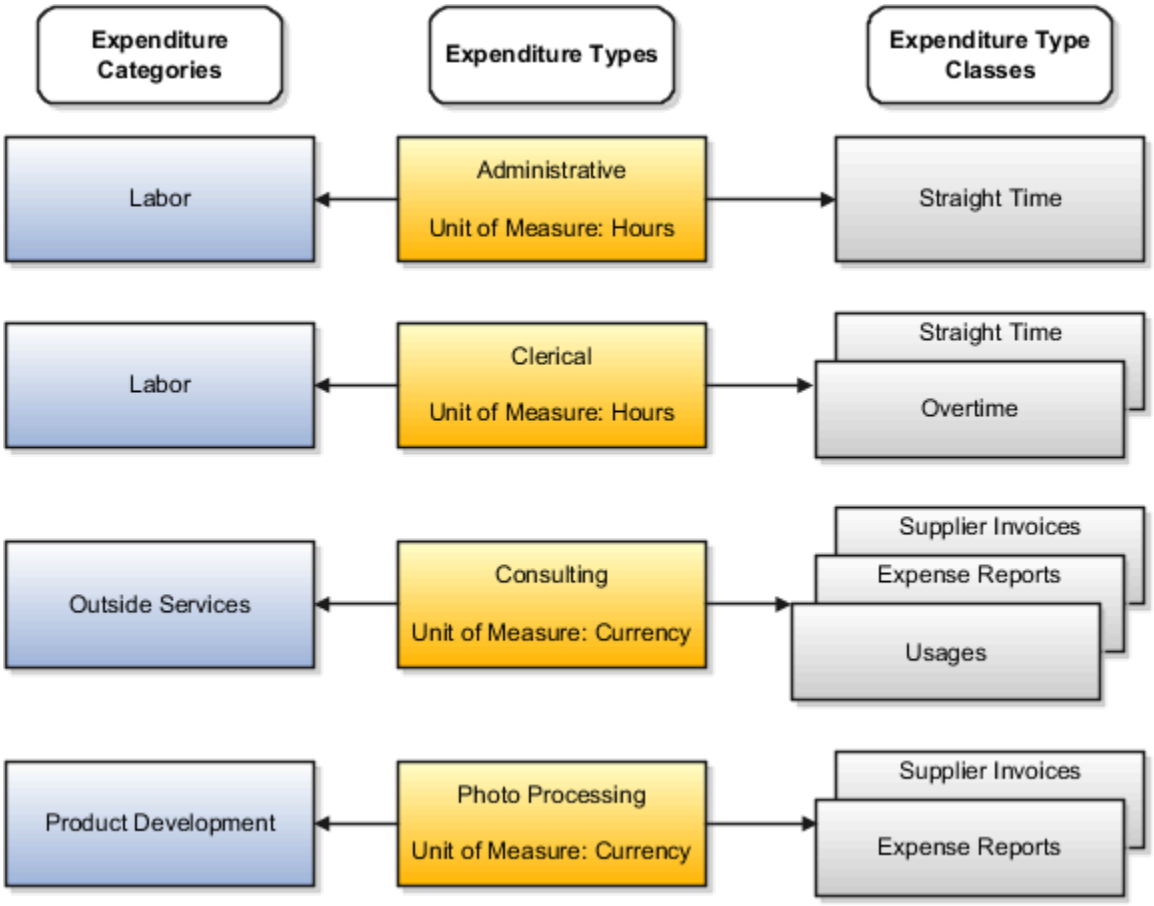
Expenditure Categories and Types

Example of Expenditure Classifications

Expenditures are divided into expenditure categories and revenue categories. Within these groups, expenditures are further classified by expenditure type classes, expenditure types, and nonlabor resources.

Expenditure Classifications

This following graphic shows examples of expenditure classifications. Each expenditure type consists of an expenditure category, a unit of measure and one or more expenditure type classes.



Following are the expenditure categories, units of measure, and expenditure type classes for each expenditure type shown in the diagram.

- Administrative
  - Expenditure Category: Labor
  - Unit of Measure: Hours
  - Expenditure Type Class: Straight Time
- Clerical
  - Expenditure Category: Labor
  - Unit of Measure: Hours
  - Expenditure Type Classes: Straight Time and Overtime
- Consulting
  - Expenditure Category: Outside Services
  - Unit of Measure: Currency
  - Expenditure Type Classes: Supplier Invoices, Expense Reports, and Usages
- Photo Processing
  - Expenditure Category: Product Development
  - Unit of Measure: Currency
  - Expenditure Type Classes: Supplier Invoices and Expense Reports

Expenditure Type Classes

An expenditure type class tells Oracle Fusion Projects how to process an expenditure item.

Oracle Fusion Projects predefines all expenditure type classes, which include the following:

- Straight Time
- Overtime
- Burden Transaction
- Expense Reports
- Inventory
- Miscellaneous Transaction
- Supplier Invoices
- Usages
- Work-in-Process

Expenditure Type Classes for Labor Costs

Oracle Fusion Projects uses the following expenditure type classes to process labor costs.

- *Straight Time*: Labor costs calculated using a base cost rate multiplied by hours.
- *Overtime*: Labor costs calculated using a premium cost rate multiplied by hours.

Expenditure Type Classes for Nonlabor Projects

Oracle Fusion Projects uses the following expenditure type classes to process nonlabor projects.

- *Burden Transaction*: Burden transactions track burden costs that are calculated in an external system or calculated by Oracle Fusion Projects as separate, summarized transactions. These costs are created as a separate expenditure item that has a burdened cost amount, and a quantity and raw cost value of zero.

  You can adjust burden transactions that are not system-generated.
- *Expense Reports*: Expense reports imported from Oracle Fusion Payables or an external system.

  Expense reports that you import into Oracle Fusion Projects must be fully accounted prior to import.
- *Inventory*: Inventory transactions imported from Oracle Fusion Inventory or an external system.
- *Miscellaneous Transaction*: Used to track miscellaneous project costs. Following are examples of miscellaneous transactions.
  - Fixed assets depreciation
  - Allocations
  - Interest charges
- *Supplier Invoices*: Supplier invoices, discounts, and payments from Oracle Fusion Payables or an external system, and receipt accruals from Oracle Fusion Cost Management.
- *Usages*: You must specify the nonlabor resource for every usage item that you charge to a project.

  For each expenditure type classified by a Usages expenditure type class, you also define nonlabor resources and organizations that own each nonlabor resource.
- *Work-in-Process*: Used when you import work-in-process transactions from third-party applications or Oracle Fusion Project Costing using Microsoft Excel or web services, or enter work-in-process transactions directly into Oracle Fusion Projects.

Considerations for Expenditure Type Class of Allocation Transactions

When defining an allocation rule, you must specify the expenditure type class for the allocation transaction attributes. Choosing the expenditure type class determines how the allocated amount is created as costs on the expenditure item.

Miscellaneous Transactions

The miscellaneous transaction expenditure type class is used to allocate the source amount as raw cost on the expenditure item.

Burden Transactions

The burden transactions expenditure type class is used to allocate the source amount as the burden cost for the expenditure item, while expenditure item quantity and raw cost remain zero.

Related Topics

- Considerations for Allocation Methods
- Considerations for Allocations Basis Methods
- How Project Cost Allocations are Processed

Expenditure Types

An expenditure type is a classification of cost that you assign to each expenditure item that you enter in Oracle Projects. Create expenditure types for processing requirements, such as calculating raw costs, to classify costs, and to plan, budget, forecast, and report on projects.

Following are examples of other ways that you can use expenditure types:

- Assign an expenditure type to each burden cost code when capturing burden costs on separate, summarized expenditure items. The assigned expenditure type becomes the expenditure type for that type of burden cost.
- Specify default expenditure types for each resource class for different project units. The application uses the default expenditure type for planning purposes. For example, when determining the raw and burdened cost rates for a planning resource, if the resource format doesn't contain an expenditure type or nonlabor resource, then the application uses the default expenditure type for the resource class of the resource to determine the rates.
- Labor cost multipliers are used to calculate costs for overtime expenditure items. Associate a labor cost multiplier to an expenditure type with the Overtime expenditure type class. The costing process multiplies the standard labor cost rate by the multiplier and the hours to calculate the cost for overtime expenditure items.
- Assign an expenditure type with the Usages expenditure type class to each nonlabor resource to define nonlabor resources that are used to record usage transactions.

Expenditure types contain the following attributes.

- Expenditure and revenue categories
- Unit of measure
- Rate required
- Proceeds of sale
- Expenditure type classes
- Assigned sets
- Tax classification codes

If you create and save an expenditure type, you can't subsequently update the following attributes for the expenditure type.

- Expenditure and revenue categories
- Unit of measure
- Rate required option

Instead, you must enter an end date for the expenditure type and create a new one. The end date for an expenditure type has no effect on existing transactions. Oracle Fusion Projects uses the old expenditure type to report on and process existing transactions.

Expenditure and Revenue Category

Expenditure categories group expenditure types for costing. Revenue categories group expenditure types for revenue and billing.

Unit of Measure

The expenditure type unit of measure is used as the default value on costing or planning transactions.

For inventory transactions, the primary unit of measure is from the inventory item, and not from the expenditure type on the transaction.

You must use Hours as the unit of measure for labor expenditure types.

Rate Required Option

Enable the **Rate Required** option for an expenditure type that requires a cost rate.

> **Note:** For supplier invoice expenditure types, if you specify that a rate is required, Oracle Fusion Projects requires you to enter a quantity in Oracle Fusion Payables for invoice distributions using that expenditure type. When you interface the invoice distribution to Oracle Fusion Projects, the application 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 Fusion Payables.

Proceeds of Sale Option

Enable the **Proceeds of Sale** option for expenditure types that are used to track the proceeds of sale for a capital project.

Expenditure Type Classes

Expenditure type classes specify how an expenditure item is processed. For example, if you assign the Straight Time expenditure type class to an expenditure type, Oracle Fusion Projects uses labor cost schedules to calculate the cost of an expenditure item with that expenditure type and expenditure type class.

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 Fusion Payables, and the expenditure type class Inventory if it originated in Oracle Fusion Inventory. This lets you use a single expenditure type to classify as many costs as you need. You can use the same expenditure type for expenditures with different origins, and therefore different accounting, that should otherwise be grouped together for costing, budgeting, or summarization purposes.

Assigned Sets

You must assign at least one project transaction type set to each expenditure type. You can add and delete set assignments for an expenditure type at any time, except that you can't delete the last set assignment for an expenditure type.

Tax Classification Codes

You can optionally select a default tax classification code to use for customer invoice lines for an expenditure type and business unit.

FAQs for Expenditure Categories and Types

Can I update or delete an expenditure category?

You can update expenditure category names and descriptions at any time. You cannot delete an expenditure category if it is used in transaction controls, expenditure types, resource transaction attributes, or cost distribution organization overrides.

You can, however, stop usage of an expenditure category by setting an end date for it.

Can I assign multiple expenditure type classes to an expenditure type?

Yes. For example, an expenditure with the expenditure type Materials can have the expenditure type class Supplier Invoice if it originated in Oracle Fusion Payables, and the expenditure type class Inventory if it originated in Oracle Fusion Inventory.

This allows you to use a single expenditure type to classify as many costs as you need. You can use the same expenditure type for expenditures with different origins, and therefore different accounting, that should otherwise be grouped together for costing, budgeting, or summarization purposes.

Can I designate cost of removal and proceeds of sale amounts when processing retirement costs?

Yes. When capturing retirement costs in a capital project, enter proceeds of sale amounts using expenditure types specifically created for that purpose. Oracle Fusion Project Costing automatically classifies amounts for all other expenditure types associated with the retirement cost task as cost of removal.

Can I update or delete an expenditure type?

You can update expenditure type names, descriptions, and dates at any time. However, you can't update the following attributes for the expenditure type: expenditure category, revenue category, unit of measure, rate required, and expenditure type class.

To update these attributes, you must set an end date for the expenditure type and create another expenditure type with a unique name.

You can't delete an expenditure type and the associated expenditure type class. However, you can stop the usage of an expenditure type by setting an end date for it.

What's an expenditure category?

Describes and groups organization costs. For example, an expenditure category named Labor refers to the cost of labor. An expenditure category named Supplier refers to the cost incurred on supplier invoices.

You use expenditure categories for budgeting, transaction controls, when you define organization overrides, and in accounting rules and reporting.

Project Class Categories

Considerations for Setting Up Class Categories

You define project classifications to group projects. Project classifications include a class category and a class code.

The category is a broad subject within which you can classify projects, such as Industry Sector. The code is a specific value of the category, such as Construction, Banking, or Health Care.

You specify the following options when setting up project classifications.

- Assign to all projects
- Assign to all project types
- Available as accounting source
- One class code per project
- Enter class codes percent
- Class codes
- Project types

Assign to All Projects

Enable this option if all projects must have a code assigned to this class category. Do not enable if this class category is optional.

Assign to All Project Types

Enable this option if you want this class category to be required for projects of all project types.

Available as Accounting Source

This option indicates if the class category is available as an accounting source so that Oracle Fusion Subledger Accounting can use the category to create mapping sets, account rules, journal line rules, and description rules.

Only one class category at a time is available as an accounting source in Oracle Fusion Subledger Accounting. To change the class category that Oracle Fusion Subledger Accounting uses, deactivate the old class category and create a new one with a different date range.

One Class Code Per Project

Specify whether you want to allow entry of only one class code with this class category for a project.

> **Note:** Defining multiple class codes for one category for a project may affect reporting by class category. For example, defining multiple class codes may cause a code to be reported more than once.

Enter Class Codes Percent and Total Percent Must Equal 100

Enable this option if you want to associate percentages with the class codes associated with this category. When you have multiple classification codes associated with a single class category, you can report the relative values of

your projects in terms of sales or a similar metric. When you enable this option, the application requires class code percentages for the category regardless of the project type.

Enable the **Total Percent Must Equal 100** option if you want the application to require that the sum of all class code percentages to be 100% for the selected class category. You can clear this option at any time. After the class category is added to a project, you can't change the Enter Class Codes Percent option and you can't check the Total Percent Must Equal 100 check box.

Class Codes

You can define class codes for the category to create more specific groups of projects for reporting. Assign each class code to a reference data set so that only codes that are relevant to the project unit are available for the project.

Project Types

Associate project classifications with project types for the classification to be available for selection on projects with that project type. You can add classifications to a project type definition, and add project types to a class category definition.

Select the **Assign to all projects** option for a project type if you require all projects of the project type to be associated with the class category.

Related Topics

- Examples for Using Class Categories
- Why do I specify a percentage for a class category and class code combination?

Work Types

Work Types for Billing

A work type represents a classification of work. You use work types to classify both actual and scheduled work. The billable status of a work type assigned to a scheduled assignment determines the default billable status of scheduled work.

In billing, you can use work types to classify work for the following purposes:

- To determine the default billable status of expenditure items.
- To classify cross-charge amounts into cost and revenue for cross-charge transactions.

Billable Project Work

The default billable status of scheduled work is determined by the billable status of the work type assigned to the scheduled assignments. You can also control the billable status of actual work by the work type assigned to actual transactions. If you choose to do this, then you must change the work type on an actual transaction to change the billable status of the transaction. It is recommended that you do this in order to maintain consistency between processing of actual transactions for customer billing and reporting for billable utilization.

> **Tip:** To use work types to determine whether an expenditure item is billable you must set the profile option Work Type Derived for Expenditure Item to **Yes**.

Cross-Charge Work

Cross-charge work is project work performed by resources from one organization on a project belonging to another organization.

Typically the project-owning organization provides some compensation to the resource organization for this cross-charge work. The compensation can be in the form of sharing revenue with the resource organization or taking on the cost from the resource organization. This allows each organization to be measured on its performance independent of one another.

By default, the application treats all project costs as cost-based transfers. If you want to create revenue-based transfers, you must mark such project costs as revenue costs to associate them with the Revenue Transfer work type. If you do not do so, the application interprets your transaction as a cost-based transfer and looks for cost-based transfer price schedule lines associated with the transaction, but doesn't find any. This may lead to the following error message: The transfer price schedule line for the transaction isn't found.

FAQs for Work Types

What's a work type?

A classification of actual work. For example, a professional services enterprise may define work types such as Analysis, Design, and External Training.

Use work types to determine whether expenditure items are billable and to classify cross-charge amounts into cost and revenue.

When you create or import expenditure items, the default work type is inherited from the associated task. Tasks, in turn, inherit work type values from parent tasks and ultimately from the project. Project types determine the default work type value for projects and project templates.

Project Statuses

Manage Project Statuses

Project statuses indicate a project-related business object's current stage within its lifecycle. They can influence what actions you can perform on a business object, and provide a way to analyze an object's progress.

Project statuses provide the following benefits to you. Note that not all status features are available for every status object.

- **Lifecycle Tracking**: Monitor the progress of objects through a predefined status lifecycle. For example, track a project through an initial idea (Draft), to completion (Closed).
- **Action Controls**: Allow or restrict specific actions depending on an object's status. For example, if a project is closed, new transactions should not be created.
- **Transition Approvals**: Control whether approval is required when an object transitions from one status to another. For example, whether a project requires approval before becoming active.

Project Status Components

Here are the components of project statuses:

- **Status Object**: A business object for which statuses can be managed in Oracle PPM Cloud. Predefined settings for each status object control the status-related functionality available, such as which status attributes can be updated.
- **Status Classification**:A grouping of statuses for each status object, predefined by Oracle PPM Cloud. Status classifications control default application behavior, such as which actions are permitted on an object.
- **Status** *:* The statuses of a business object. For each status object, Oracle PPM Cloud provides statuses out of the box. Some objects allow additional statuses to be defined (typically where direct changes to an object's status are permitted).

Status Attributes

You can configure status attributes for some statuses, depending on the status object and status classification. Here are the attributes available for configuration:

- Initial status
- Next Allowable Status Type and Status Lifecycle
- Enable Workflow
- Status Action Controls
- Status Lifecycle

Initial Status

If you enable initial status, you can select a status as the initial status for an instance of a status object—for example, the starting status of a new project.

Next Allowable Status Type and Status Lifecycle

The next allowable status type determines which status(es) an instance of a status object can transition to. For example, if a project is in a draft status, it may only be transitioned to a submitted status, not directly to active.

- **All**: Can transition to any status.
- **None**:Can't transition to any status; it's in a terminal state.
- **Status**: Can transition to any of the configured next allowed statuses.
- **Status Classification**: Can transition to any status belonging to the configured next allowed status classifications.

In status lifecycle, you can define the next allowable statuses. Defining the next allowable statuses determines the status object process flow. For example, you can specify that a project with a Requested status can have the status changed to either Active or Rejected. This example shows two possible process flows for the project: Requested to Active status or Requested to Rejected status.

Enable Workflow

You can enable workflow for statuses. A workflow automates status changes and approvals. Let’s look at an example of a workflow for a project:

- The project manager completes the project setup and changes the project status to "Submitted".

- The system automatically triggers the workflow, sending a notification to the designated approver (often the primary project manager).
- The approver reviews the project details and approves the status change.
- The workflow updates the project status to "Active" signifying the project's official kick-off.

After you enable workflow for a status, you can specify the following status attributes:

- **Status After Change Accepted**: The status assigned after approving a status change.
- **Status After Change Rejected**: The status assigned after rejecting a status change.

Status Action Controls

Status Action Controls determine the actions allowed for an instance of a status object in a given status. For example, when a project status is closed, you can't create new transactions. Whereas, by default, a project in an active status allows all actions.

Status Object-Specific Settings

Project Status

A project status indicates where a project is in its lifecycle and limits the actions that you can perform on the project at that stage.

Project status offers predefined system statuses. Here are the project statuses available by default:

- Draft
- Submitted
- Active
- Rejected
- Pending Close
- Closed

You can create your own project statuses for each status classification.

When you create your own project statuses, you can specify the following attributes for each status:

- Initial Status
- Next Allowable Status
- Enable Workflow
- Status Action Controls
- Status Lifecycle

Project statuses have the following Status Action Controls available:

- Adjust transactions
- Capitalize assets
- Capitalized interest
- Create burden transactions
- Create new transactions

- Summarize project data
- Progress reporting by team members

For more information on status attributes, see the *Status Attributes* section.

Progress Status

The progress status specifies the overall progress of a project, task, or resource. Progress statuses are used for reporting and don't control what you can do with a project. Here are the progress statuses available by default:

- On track
- At risk
- In trouble

You can't modify the predefined progress statuses, but you can create custom statuses to suit your specific needs.

Bill Transaction Status

A bill transaction status indicates where each transaction is within the billing lifecycle. Here are the bill transaction statuses available by default:

- Action pending
- Billed
- Error
- In progress
- Insufficient funds
- Nonbillable
- On hold
- Ready

Milestone Status

A milestone status indicates where a project milestone is within its lifecycle toward completion. Here are the milestone statuses available by default:

- Complete
- Completion approval requested (applicable only to billable milestone)
- In progress
- Not started
- Rejected

You can’t create new milestone statuses or delete the predefined ones. You can update the Enable Workflow setting on the Completion approval requested milestone status. This is the only update allowed on the predefined milestone statuses.

Project Status Change Workflow

When the user sets a project to a workflow-enabled status, the application triggers the Project Status Change Approval workflow. This workflow then notifies configured assignees, who must approve or reject the status change, or seek more information if required. The default approval rules for this workflow route the approval to the primary project manager.

If the approval workflow is withdrawn or results in errors, the application reverts the project to the previous status. Errors can be viewed and rectified by the project application administrator on the Transaction Console page. If the issue persists, log a Service Request (SR) and attach the relevant diagnostic log file.

In the BPM Worklist tool, this workflow is called **ProjectStatusNotificationApproval**.

Project Status Change Approval Process

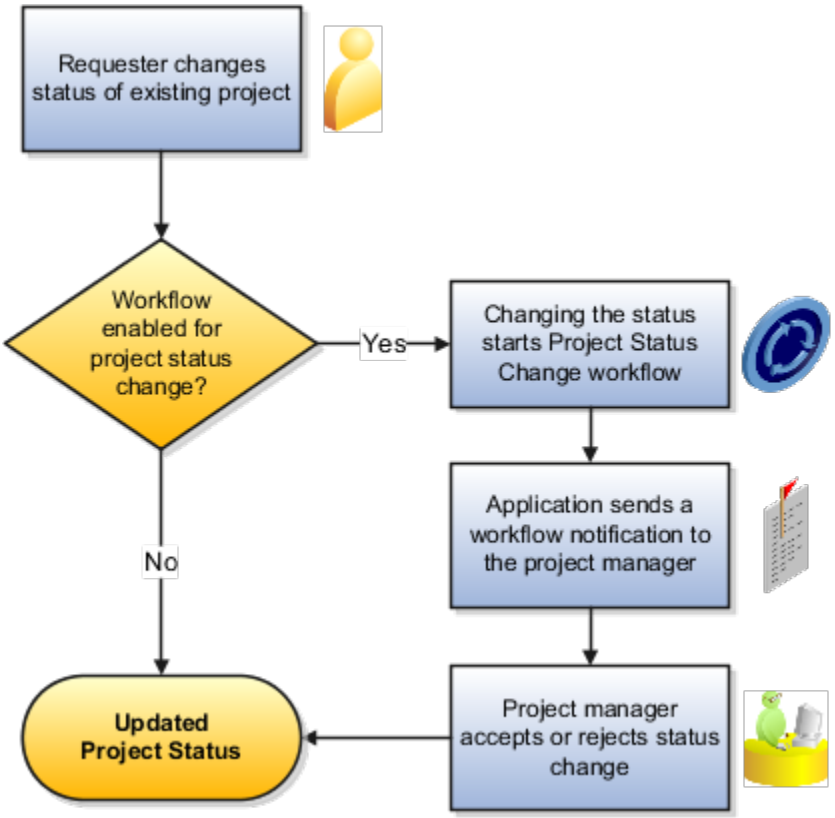
Here's a table that describes the Project Status Change Approval process.

Task No.	Agent	Description	Comments
1	Requester* *Project Manager. Project Administrator, or other roles with the privilege to change project statuses.	Users change the status of a project (through the UI or using REST API) to a workflow-enabled status, which triggers the workflow.	Statuses are enabled for workflow approval by project application administrators in the Manage Project Statuses task within Setup and Maintenance.
2	The Project Status Change Approval Workflow	The workflow sends notifications to all configured assignees using email or in-app notifications, as configured.	For detailed information on how you can change approval workflow notifications, see Workflow Notifications in the Implementing Common Applications guide.
3	Workflow Assignees	Assignees review the approval notification and approve or reject the project status change. Assignees may also ask for more information from the requester.	If the workflow uses parallel approvers, then the Voting Percentage rule is used to determine final approval. For detailed information on using BPM Worklist to update approval workflows, see Workflow Approvals and Notifications in the Implementing Common Applications guide. Also see How Invoices Are Approved in the Using Payables Invoice to Pay guide.
4	The Project Status Change Approval Workflow	The workflow updates the project status: • If the assignees **accept** the status change, the project status is set to the Status After Change Accepted attribute configured by the project application administrator.	NA

Task No.	Agent	Description	Comments
		• If the assignees **reject** the status change, the project status is set to the Status After Change Rejected attribute configured by the project application administrator. If the new status is also workflow-enabled, another approval task is launched.	

If you previously configured the workflow for status changes of projects enabled for financial management and you want to extend the workflow to nonfinancial projects, then first review and update the workflow configuration as needed.

The following graphic shows the process of changing a project status.



Configuring the Project Status Change Approval Workflow

Use the Manage Project Statuses task in Setup and Maintenance to enable or disable project statuses for workflow approval. Select the Enable Workflow checkbox for each project status that should trigger a workflow approval.

For each project status with workflow enabled, you must also specify the following attributes:

- Status After Change Accepted: The status the application assigns to the project after accepting a project status change.

- Status After Change Rejected: The status the application assigns to the project after rejecting a project status change.

Other rule changes you can make:

- The default approval rules in all the predefined rule sets are configured to send notifications to the primary project manager for approvals. You must review the predefined rules and modify them as required.
- You can disable participants that you don't want to use by enabling the **Ignore Participant** option or by defining a rule to ignore the participant.

> **Note:** You must have the Projects Application Administrator job role (or another similarly privileged job role) to configure rules for this workflow.

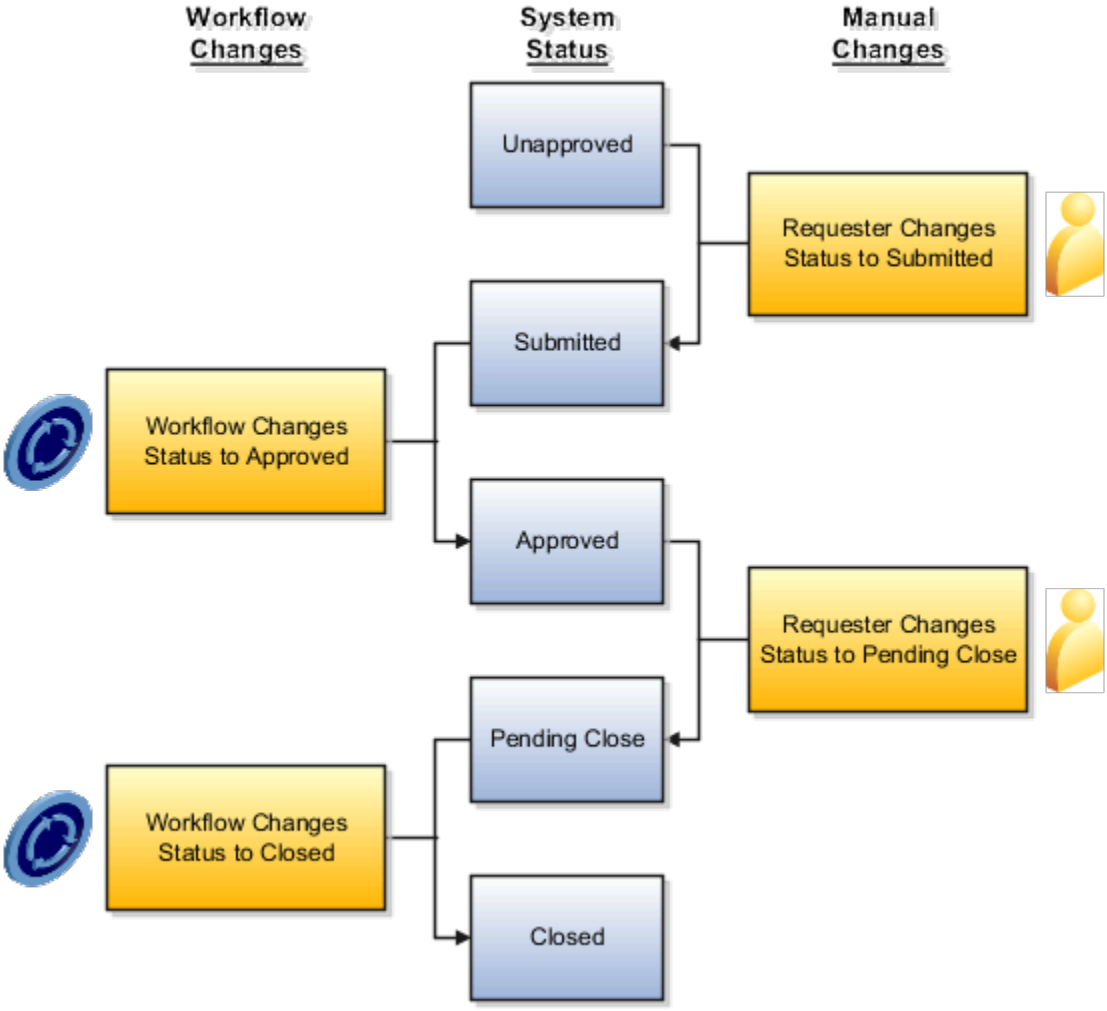
For example, assume that during implementation, you enable workflow for the Submitted status, and configure the following workflow attributes:

- In the **Status After Change Accepted** field for the Submitted project status, you specify the Active status as the status that the application assigns to the project when the status change is accepted.
- In the **Status After Change Rejected** field for the Submitted project status, you specify the Rejected status as the status that the application assigns to the project when the status change is rejected.

In this example, when a requester changes the project status to Submitted, the workflow process routes the status change request to the primary project manager's worklist. If the project manager accepts the status change, the workflow process assigns the Active status to the project. If the project manager rejects the status change, the workflow process assigns the Rejected status to the project.

The following graphic shows an example project status flow when using the Project Status Change workflow for status changes during the lifecycle of a project. In this example, a new project is created with an initial status of Unapproved. After ensuring all project details are correctly entered, a requester changes the project status to Submitted. The workflow sends a notification to the primary project manager, who accepts the status change. The workflow changes the project status to Active. After project completion, the requester changes the project status to Pending Close, which is another workflow-enabled status. A workflow sends a notification to the primary

project manager, who again accepts the status change. The workflow changes the project status to Closed.



Configuring the Workflow: Supported Attributes

When a Project Status Change Approval workflow is launched, the current values of several project-related attributes are included in the payload. These attributes can be used to configure rules to route approvals for specific business needs.

Project Attributes

Attribute	Description
ProjectId	The unique identifier of the project.
ProjectName	The name of the project.
ProjectNumber	The project number.
CarryingOutOrganizationId	The unique identifier of the project organization.
ProjectOrganizationName	The name of the project organization.

Attribute	Description
ProjectUnitId	The unique identifier of the project unit.
ProjectUnitName	The name of the project unit.
ProjectTypeId	The unique identifier of the project type.
ProjectTypeName	The name of the project type.
BusinessUnitId	The unique identifier of the business unit.
BusinessUnitName	The name of the business unit.
LegalEntityId	The unique identifier of the legal entity.
LegalEntityName	The name of the legal entity.
WorkTypeId	The unique identifier of the work type.
WorkTypeName	The name of the work type.
ProjectCurrencyCode	The code of the currency used for reporting amounts across projects in a common currency.
ProjectLedgerCurrencyCode	The code of the currency of the ledger associated with the project.
SponsoredFlag	A flag indicating whether the project is sponsored.
ProjectTeamMember-> ProjectPartyId	The unique identifier of a project team member.
ProjectTeamMember-> TeamMemberRoleId	The unique identifier of the role assigned to a project team member.
ProjectTeamMember-> TeamMemberRoleName	The name of the role assigned to a project team member.
ProjectTeamMember-> TeamMemberPersonId	The unique identifier of the person of record for a project team member.
ProjectTeamMember-> TeamMemberEmailAddress	The email address of a project team member.
ProjectTeamMember-> TeamMemberUserName	The user name of a project team member.
ProjectTeamMember-> StartDateActive	The start date of a project team member.
ProjectTeamMember-> EndDateActive	The end date of a project team member.
ProjectTeamMember-> PjsTrackTime	A flag indicating whether missing time is tracked for a team member.
Project Flexfields	Custom project-related flexfields created for use in your organization.
ProjectEpsNodeMember-> EpsNodeId	The unique identifier of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsNodeName	The name of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsNodeTypeCode	The code for the type of the Enterprise Project Structure (EPS) node to which the project belongs.
ProjectEpsNodeMember-> EpsMemberId	The unique identifier of the Enterprise Project Structure (EPS) member.

Attribute	Description
ProjectEpsNodeMember-> EpsMemberDisplayName	The name of the Enterprise Project Structure (EPS) member.
ProjectEpsNodeMember-> EpsMemberTypeFlag	A flag indicating the type of the Enterprise Project Structure (EPS) member.
ProjectEpsNodeMember-> EpsMemberUsername	The user associated with the Enterprise Project Structure (EPS) member.
ProjectClassification-> ProjectClassCategory	The project categories assigned to the project.
ProjectClassification-> ProjectClassCode	The project class codes associated with the project class categories assigned to the project
ProjectClassification-> ClassCodePercentage	The project class code percentage.

Project Status-Related Attributes

Attribute	Description
projectStatusCode	The unique code of the project status.
projectStatusName	The name of the project status.
sourceStatusCode	Status codes specific to each source object, as identified by the STATUS_TYPE. Objects which uptake the project status model will either use STATUS_TYPE and SOURCE_STATUS_CODE to resolve a project status, or the globally unique PROJECT_STATUS_CODE.
startDateActive	The effective start date of the project status.
endDateActive	The effective end date of the project status.

Project Status Change Approval Workflow Notifications

The Project Status Change Approval workflow sends notifications when:

- A project status change approval workflow is initiated.
- A project status change approval workflow is **approved** or **rejected**.

The default Project Status Change Approval Workflow notification contains the following details:

- Header
  - Project Status Change Approval Notification
  - Project Name
- Approval options (if sent to an approver)
  - Approve
  - Reject
  - Request Info?
- Contents Section

    - Created on
    - Created by
    - Project number
    - Project Description
    - Previous Project Status
    - Current Project Status
    - Next Project Status if Approved
    - Next Project Status if Rejected
    - Comments from Submitter
- Project Details
    - Project Type
    - Business Unit
    - Organization
    - Project Unit
    - Project Manager
    - Project Start Date
    - Project Finish Date
- Financial Summary
    - Actual Costs
    - Commitments
    - Budget at Completion
    - Revenue
- Approval History: One row per approver.
    - Approvers
        - Assigned to / Approved by / Rejected by <Name of Approver>
        - Date and Time of Assignment / Approval / Rejection
    - Submitter
        - Submitted by <Name of Submitter>
        - Date and Time of Submission
    - Link to transaction details

For guidance on how you can work with workflow notifications in the BPM Worklist tool, see the Workflow Notifications section in the Common Implementing Applications guide.

You can find the templates and data models used in the Project Status Change Approval workflow in the Shared Folders > Projects > Workflow Notifications > Project Foundation folder in the Oracle BI Publisher catalog. In this folder, the **ProjectStatusChangeApprovalReport** file contains the template used in the notification report. Expand the Project Foundation > Data Models folder to access the **ProjectStatusDM** file, which contains the data model used in the notification report.

For information on how you can change notification templates, see the Configurable Notifications section in the Common Implementing Applications guide.

Related Topics

- Use Your Worklist to Manage Workflow Tasks

FAQs for Project Statuses

What are the attributes that I can configure for approval workflow?

Project application administrators can configure the BPM task ProjectStatusNotificationApproval to create or update approval rules to use project and project task attributes such as project manager, task manager, project team members, project classifications, project descriptive flexfields, and task descriptive flexfields.

They can also create approval rules using attributes from a limited set of related business objects, such as the financial project plan, project budget, or project forecast. For example, they can create an approval rule which checks for the existence of a baselined approved cost budget for a project.

For more information on how to implement workflows, refer to the section Workflows in Oracle Project Management in the Getting Started with Your Project Management Implementation guide.

Who can receive the approval workflow notifications?

The approval workflow notifications are sent according to the rules configured for a project role, without having to prepare a static approval group of named persons.

Can the approval workflow update the project status after each approval in serial workflow?

Yes, you can update the project status after each approval by breaking up serial approval requirements into separate workflow tasks, each with their own workflow-enabled status using the Manage Project Statuses task in the Setup and Maintenance work area.

In the Manage Project Statuses page, set the Status After Change Accepted (or Status After Change Rejected, depending on specific requirements) option to another workflow-enabled status. When the first workflow task completes, the project status will be changed and a second workflow task will be launched.

> **Note:** Avoid infinite loops in your workflow rule design. For example, the use of automatic approvals for a participant could result in a circular flow of status changes. In such scenarios, the workflow will automatically exit the loop after 10 iterations, and set the project back to the last status that wasn't workflow-enabled.

Example

Let's see how the approval workflow worked earlier.

Sequence	Project Status	Workflow-Enabled?	Workflow Approver (s)	Explanation
1	Draft	No		

Sequence	Project Status	Workflow-Enabled?	Workflow Approver (s)	Explanation
2	Submitted	Yes	**Project Manager** > **FinancialController**	The project status remains Submitted even after the project manager approves the workflow. The Status of project changes to Approved only when the financial controller approves the workflow.
3	Approved			

Let's look at this example and understand how project status change is achieved with each approval.

Sequence	Project Status	Workflow-Enabled?	Workflow Approver (s)	Explanation
1	Draft	No		
2	Submitted for Project Approval	Yes	Project Manager	Status changes to PM approved.
3	Submitted for Finance Approval	Yes	Financial Controller	Status changes to FM approved.
4	Approved			

5 Project Foundation Configuration: Project Roles

Project Roles in Budgeting and Forecasting

Default project roles, including project application administrator, project manager, and project administrator can perform specific budgeting and forecasting tasks.

Default Access for Roles

The following table describes the default access for each role.

Privilege Area	Project Application Administrator	Project Manager	Project Administrator	Notes
Edit budget and forecast planning options	Yes	No	No	Project application administrators set planning options for financial plan types. Project managers and accountants can view planning options at the version level.
Create versions	No	Yes	Yes	None
Generate versions	No	Yes	Yes	Applies to budgets generated when setting a baseline for the project plan. Project administrators can't generate forecasts from progress (they don't have access to publish progress.)
Edit versions in Excel	No	Yes	Yes	None
Submit versions	No	Yes	Yes	None
Approve versions	No	Yes	No	A team member with project manager security role access must be manually designated as the project manager for the project.

Privilege Area	Project Application Administrator	Project Manager	Project Administrator	Notes
				If workflow is enabled, then approval occurs through a notification. Menu actions aren't available on the budgeting and forecasting pages.
Review versions	No	Yes	Yes	None

FAQs for Project Roles

What's a project role?

Project roles represent either a requirement or an assignment on a project, such as a project manager or project team member.

You associate an job or abstract role with each project role. When you assign a project role to a project team member, the associated job or abstract role determines the type of access the team member has to project information. For example, project managers can manage project progress or create budgets and forecasts. Project team members may only have access to view progress or financial plans.

Persons who are directly assigned job or abstract roles such as **Project Manager** or **Project Application Administrator** may have access to certain project information even if they aren't project team members or don't have a specific project role assignment.

What's the difference between a job title and a project role?

A job title represents the function of a person within an organization and the position within a reporting hierarchy. For example, your organization may have designations or job titles such as software developer, sales representative, or accounts manager.

Project roles represent either a requirement or an assignment on a particular project, for example, project manager. Project roles may differ from project to project.

6 Project Foundation Configuration: Project Resources

Resource Classes

Resource Classes

Resource classes are predefined classification of resources. For each resource class, you can define specific attributes that associated planning resources inherit.

Following is a description of the available resource classes and their attributes.

Available Resource Classes

The following table lists the resource classes available in Oracle Fusion Applications.

Resource Class	Description
Labor	Named persons or any grouping of named persons whose time capacity is consumed to complete project work. Named persons may be grouped by attributes such as job, organization, or role.
Equipment	Nonperson resource such as machinery, equipment, or facilities with time capacity that is consumed to complete project work. Examples include telecommunication charges (charged by call), or shared facilities or laboratory (charged for hours used).
Material items	Resources that are physically tracked as inventory, subassembly, work in progress (WIP), purchasable items, or finished goods.
Financial resources	Resources that have a financial value for the project. These resources use Currency as the unit of measure.

Resource Class Attributes

The following table lists the attributes that you can define for each resource class.

Attribute	Description
Spread curve	Determines how planned amounts for a planning resource are spread across the duration of the project or financial plan. You can change the spread curve that you select for a resource class at the planning resource level and for any corresponding task assignments, or budget or forecast lines.

Attribute	Description
Item master and category set	Determine the material item and item category lists used in planned transactions and planning, billing, and reporting resource breakdown structures.
Expenditure types	Determine default raw and burdened rates for a planning resource. For example, if the resource format does not contain an expenditure type or nonlabor resource, then the application uses the default expenditure type for the resource class of the resource to determine the rates. You must individually specify expenditure types for project units.

Resource Class Rate Schedules

Create rate schedules for resource classes that you can use for project and financial planning. When creating resource class rate schedules, you can specify both rates and markup percentages for each combination of resource class and organization.

Note: Markup percentage takes precedence for amount-based transactions where the unit of measure is Currency.

You specify a resource class rate schedule in the planning options for a financial or project plan type, project plan, or financial plan version as the source for rates or markup percentages, unless they are available elsewhere. For example, assume you are using actual rates on your financial plan version. If one of the planning resources is an expenditure category, then resource class rate schedules are used to derive rates for that resource because actual rates are not maintained for expenditure categories.

Related Topics

- How to Use Resource Formats and Resource Classes to Create Planning Resources

Job Mappings

Job Mapping

Job mapping enables you to associate granular human resource jobs to less-detailed project jobs that you can use for project management.

Job titles usually reflect human resource characteristics and can vary across countries or units, even within the same enterprise. For example, you may have a project manager in the United States and a chef de project in France. However, when managing projects, especially global ones, you may want to use the same job definitions for all resources rather than unique jobs that are defined by each resource-owning organization. These common, or global, jobs ease the maintenance of costing rates and processes.

Following is a description of job mapping and a brief example.

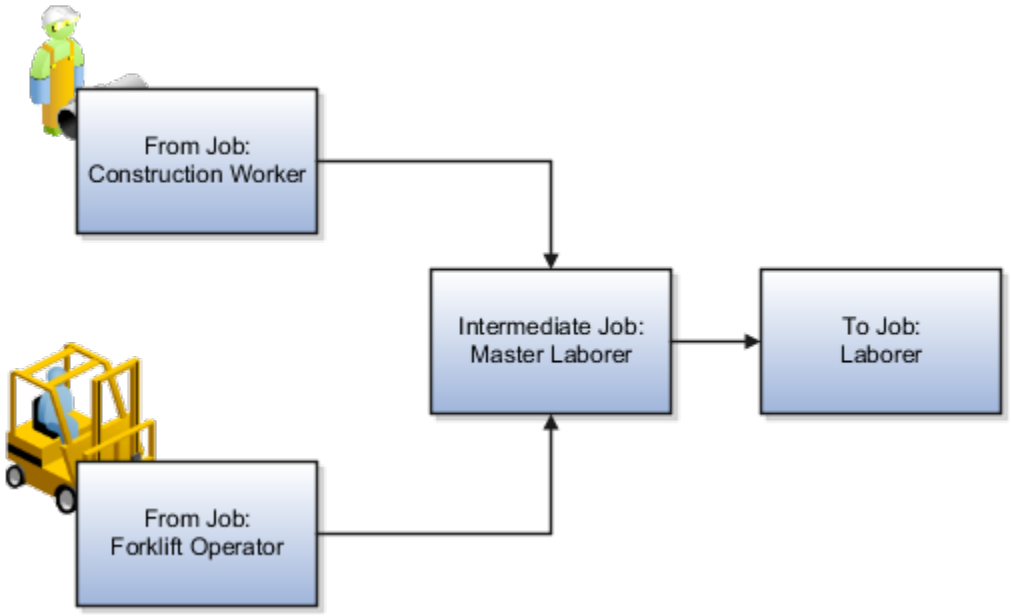
Mapping Jobs

You map jobs from two job sets through an intermediate job set. Map jobs in your human resource jobs sets to jobs from an intermediate set of jobs. You then map the jobs in the intermediate job set to jobs in your project job sets.

For each combination of **From Job Set**, **Intermediate Job Set**, and **To Job Set**, you manually associate the intermediate job to the to job only once. For subsequent mappings, the to job is displayed automatically when you select the intermediate job and cannot be modified.

Note: If you remove a from job from the mapping, you must save before it can be used again for further mapping.

For example, and as illustrated in the following graphic, assume you want to map jobs from Human Resources Job Set to Projects Job Set through an intermediate job set called Master Job Set. Within the Human Resources Job Set, you want to map jobs Construction Worker and Forklift Operator to a single job called Laborer in the Projects Job set.You first select Construction Worker as the from job, Master Laborer as the intermediate job, and Laborer as the to job. The intermediate job Master Laborer and the to job Laborer are now linked. Next, when you select Forklift Operator as the from job and Master Laborer as the intermediate job, Laborer is displayed automatically as the to job.



After you map the jobs, you can use the single job Laborer for project management purposes.

Related Topics

- What's a job set?
- Create Job Mapping

Create Job Mapping

You can use job mapping to associate granular human resource jobs to less-detailed project jobs that you can use for project management. The following example illustrates how you map jobs from two job sets using an intermediate job set.

Scenario

Vision Corporation is a global enterprise with business units in the United States and France. The following table lists sample job titles in those two countries.

Job Set	Jobs
United States Job Set	Manager Staff Consultant Senior Consultant Design Engineer Electrical Engineer Construction Worker
France Job Set	Chef de Projet Ingenieur Formateur Architecte Ouvrier

For project work, Vision Corporation uses the following generic job roles, created for the Global job set:

- Project Manager
- Consultant
- Architect
- Laborer

To map the global jobs to country-specific jobs, Vision Corporation created an intermediate job set, called the Master job set, with the following jobs:

- Master Project Manager
- Master Consultant
- Master Architect
- Master Laborer

Jobs are mapped as follows for the United States job set:

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Manager	Master Project Manager	Project Manager
Staff Consultant	Master Consultant	Consultant

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Senior Consultant	Master Consultant	Consultant
Design Engineer	Master Architect	Architect
Electrical Engineer	Master Architect	Architect
Construction Worker	Master Laborer	Laborer

Jobs are mapped as follows for the France job set:

Job in From Job Set	Job in Intermediate Job Set	Job in To Job Set
Chef de Projet	Master Project Manager	Project Manager
Ingenieur Formateur	Master Consultant	Consultant
Architecte	Master Architect	Architect
Ouvrier	Master Laborer	Laborer

Vision Corporation associates the Global job set to its planning resource breakdown structures. Therefore, jobs such as Project Manager and Laborer are available for creating planning resources. In addition, the Global job set is used to define rates that can are then used for costing, invoicing, and financial planning.

Related Topics

- What's a job set?

FAQs for Job Mappings

How can I map a human resource job to a project job?

You map jobs from two job sets through an intermediate job set. Map jobs in your human resource jobs sets to jobs from an intermediate set of jobs and then from intermediate job set to jobs in your project.

For example, you can map the human resources jobs Construction Worker and Forklift Operator to a single projects job called Laborer through the intermediate job Master Laborer. After you have mapped your jobs, you can use the single job Laborer for your project management purposes.

What's a job set?

An organizational partition of jobs. Use job sets to define how you create jobs and use them in your business. Define a single set of jobs or separate job sets for each country or line of business.

For example, assume that the set of jobs your business uses for project management is less granular than the set of jobs for human resource. You can define generic jobs for your project job set and map it to the human resource job sets. Associating the project job set with planning, reporting, and billing resource breakdown structures ensures appropriate project reporting, costing, invoicing, and revenue generation.

Nonlabor Resources

What's a nonlabor resource?

An asset or a pool of assets. For example, a nonlabor resource can be a piece of equipment with capacity that is consumed, such as a training room or copier.

When you create a nonlabor resource, ensure that related organizations and expenditure types exist. You can associate nonlabor resources with Usages expenditure type class only.

> **Note:** To plan and report on equipment, enable the Equipment resource class and specify Hours as unit of measure for the expenditure type.

Related Topics

- Create Nonlabor Resources
- Create Rate Schedules

How to Determine Nonlabor Cost Rates

Project Financial Management applications use cost rates to calculate the raw cost for transactions. For example, for cost transactions, the application determines a cost rate for each transaction and calculates the raw cost during transaction costing, unless you import the raw cost for transactions.

How Nonlabor Cost Rates Are Determined

The application uses organization costing rules to determine the nonlabor cost rate schedule. Costing rules can be associated with an organization or with a combination of organization and business unit. If hierarchies are used, costing rules can be associated with organizations at any level of the expenditure organization hierarchy.

The application searches for a costing rule in the following order and stops when it finds a valid costing rule that includes the transaction date.

1. Project expenditure organization and business unit
2. Project expenditure organization

3. Parent organization and business unit
4. Parent organization

The application continues up the hierarchy looking at each parent organization and business unit. If an organization isn't found after traversing the hierarchy, the costing rule associated with the business unit is used.

Related Topics

- Rate Schedule Types

Turn Equipment into Nonlabor Resources

This example illustrates setting up assets as nonlabor resources.

Scenario

You are asked to set up nonlabor resources and assign them to the appropriate organizations for the Vision Corporation.

Defining Nonlabor Resources

Vision Corporation wants to capture costs for computer equipment, vehicles, survey equipment, and other assets.

In this example, assume that expenditure types and organizations are already set up, which are prerequisites of defining nonlabor resources.

The Other Assets expenditure type is assigned to all divisions. This nonlabor resource captures miscellaneous items.

To define a nonlabor resource, you specify a name and description of each asset, such as a piece of equipment or pool of assets, and a date range during which the resource can be used.

For each nonlabor resource, you must choose an expenditure type with the **Usage** expenditure type class. Every usage item that you charge to a project must specify the nonlabor resource utilized and the nonlabor resource organization that owns the resource. You can select organizations that are classified as project and task owning organizations or project expenditure organizations.

A nonlabor resource may be a piece of equipment with capacity that is consumed, such as a training room, or equipment with physical output that is consumed, such as a copier. Enable the Equipment resource class to plan and report nonlabor resources as equipment with capacity that is consumed.

Nonlabor Resource Details

The following table shows the nonlabor resources for Vision Corporation.

Resource Name	Description	Expenditure Type	Equipment Resource Class	From Date	Organizations
Laptop	Laptop on the Headquarters Network	Computer Services	Not enabled	January 1, 2011	Data Systems Finance Information Services Risk Analysis

Resource Name	Description	Expenditure Type	Equipment Resource Class	From Date	Organizations
HQ SPARC T3-1 Server	Oracle SPARC Server	Computer Services	Not enabled	January 1, 2011	Information Services
Oracle Exadata Storage Server	Data Systems Oracle Storage Server	Computer Services	Not enabled	January 1, 2011	Data Systems
Oracle Developer Studio	Engineering and Services Oracle Development Platform	Computer Services	Not enabled	January 1, 2011	Vision Engineering Vision Services
Survey	Standard Surveying Equipment	Field Equipment	Enabled	May 1, 2011	Vision Engineering
Van	Heavy Duty Van	Vehicle	Not enabled	January 1, 2011	Vision Construction West Midwest East South International
Minivan	Site Visit Minivan	Vehicle	Not enabled	August 1, 2011	Vision Construction West Midwest East South International
Pickup Truck	Heavy Duty Pickup Truck	Vehicle	Not enabled	January 1, 2011	West Midwest East
Other Asset	Other Asset	Other Assets	Not enabled	January 1, 2011	Administration Vision Construction Vision Engineering Vision Services

What's a nonlabor resource organization?

The organization to which a nonlabor resource is assigned. For example, Survey is a nonlabor resource, represents the survey equipment, is assigned to the Engineering organization.

Another nonlabor resource, PC, represents a pool of personal computers, and is assigned to multiple organizations such as Information Services, Finance, and Engineering.

You can assign nonlabor resources to any organization that has an active project and task-owning organization classification, or an active project expenditure organization classification. The organization doesn't need to be assigned to an organization tree.

Every usage item that you charge to a project must specify the nonlabor resource utilized and the nonlabor resource organization to which the resource is assigned.

7 Project Foundation Configuration: Rate Schedules and Costing Rules

Rate Schedules

Rate Schedule Types

Schedule types determine usage for rates within rate schedules. You specify a schedule type for rate schedules created for costing, billing, or planning purposes in Project Financial Management applications.

The schedule types are:

- Job
- Person
- Nonlabor
- Resource class
- Project role

Job

Job rate schedules contain rates used to calculate amounts for the following types of labor transactions:

- Costing
- Billing (invoice and revenue)
- Planning
- Budgeting
- Forecasting
- Transfer price

If you're using planning rates for financial or project planning, you can select a specific job rate schedule when configuring rate settings at the plan type or project level. Job rate schedules are used if rates can't be derived from the person labor rate schedule.

When creating a job schedule type, you must select a job set from Oracle Fusion Human Capital Management. The job set is the source of jobs in your rate schedule. Assign rates or markup percentages to jobs in the rate schedule.

Person

Person rate schedules maintain rates by named worker and are used to calculate the cost or price of project labor transactions. Person rate schedules have applications in project costing, billing, and planning activities. You can define rates for workers with active, terminated, future, or no assignments.

When you define a person rate schedule, the name of the person is mandatory, but you can optionally include a worker's job and organization from any one of their HR assignments. The list of values for person name is dependent on the From Date of the rate schedule line. In addition to person name, if a person's job is selected then the organization

defaults from the same HR assignment from which the job was picked (although the default organization can be removed if required).

In summary, within a person rate schedule you can maintain rates at the following levels:

- Person
- Person and job
- Person, job, and organization

For example, if a rate schedule entry exists for Person A, where only the person's name has been entered, and another rate schedule entry exists where both the person's name and job have been entered, the latter will take precedence. Highest precedence is for the rate schedule entry having values for person, job, and organization.

Costing: When a rate schedule is created for project costing purposes, the schedule contains raw cost rates that you can use to calculate the raw cost amount of a project labor transaction. For example, a person cost rate schedule may contain a rate of $100 for Person A. If person A enters a time card for 8 hours, the calculated raw cost for that time card would be $800.

Billing: When a rate schedule is created for project billing purposes, the schedule contains either a bill rate or a markup for each worker. You can use person rate schedules to calculate the revenue or invoice amounts for rate-based revenue or bill plans, or the transfer price of resources for intercompany billing. For example, a bill rate schedule may contain a rate of $150 for Person A. The bill amount for Person A's time card is calculated as 8 hours x $150 bill rate = $1200 (therefore giving a $400 margin). Alternatively, markup can be used to apply a fixed amount on top of the cost. For example, a person bill rate schedule may contain a markup of $25 for Person A. The bill amount is therefore calculated as $100 cost + $25 markup = $125.

Planning: Financial project plans, budgets and forecasts can be configured to either use rate schedules specific to planning, or to use the same rate schedules as actual cost and billing transactions. In either scenario person rate schedules may be used.

Nonlabor

Nonlabor rate schedules contain rates or markup percentages that calculate cost, bill, revenue, plan, budget, forecast, or transfer price amounts for nonlabor resources.

Enter a rate or markup percentage for expenditure types with the Rate Required option enabled. Otherwise, assign it only a markup percentage. Assign rates to nonlabor resources and optionally define rates for nonlabor resource organizations.

If you're using planning rates for financial or project planning, you can select a specific nonlabor rate schedule when configuring rate settings at the plan type or project level.

Resource Class

Resource class schedules contain the planning rates or markup percentages for a resource class or a combination of resource class and organization. You optionally assign a resource class schedule to a project plan or financial plan (budgets and forecasts) at the plan type level or version level. The resource class rate schedule determines rates for the associated resources if the rates can't be derived elsewhere.

Enter a rate or markup percentage for each resource class in the rate schedule. Optionally, assign the rate or markup percentage to a specific organization for a resource class.

Project Role

Use project role rate schedule to define bill rate or cost rate for a project role. You can assign them to project plan type or financial plan type.

Related Topics

- How Labor Cost Rates Are Calculated
- Considerations for Selecting Rate Schedules for Project and Financial Planning
- Job Mapping
- How Invoice and Revenue Rates Are Determined

How Labor Cost Rates Are Calculated

Cost rates determine the raw cost for expenditure items, unless you import the raw cost for your expenditures.

Where Do Labor Cost Rates Come From

If cost rate overrides exist for a person, job, or expenditure type at the project or task level, then the override rate applies for cost rate processing for each transaction.

Otherwise, the labor cost rule and rate schedules in the following order determine costing rules for transactions.

1. If a labor costing override exists for the employee on the expenditure item, then the override determines the cost rate. The effective dates for the labor costing overrides determines whether an override is active on the expenditure item. A labor costing override can have either an overriding cost rate or an overriding rate schedule.

   Labor expenditure items always have a unit of measure of Hours.

   For labor transactions, the application searches for a labor costing override in the following order.

   a. Person, job, and organization combination
   b. Person and job combination
   c. Person
2. If no override exists, the application uses organization costing rules to determine the nonlabor cost rate schedule. Costing rules can be associated with an organization or with a combination of organization and

business unit. If you use hierarchies, you can associate costing rules with organizations at any level of the expenditure organization hierarchy.

The application searches for a costing rule in the following order and stops when it finds a valid costing rule that includes the transaction date.

a. Project expenditure organization and business unit
b. Project expenditure organization
c. Parent organization and business unit
d. Parent organization

The application continues up the hierarchy looking at each parent organization and business unit. If an organization isn't found after traversing the hierarchy, the costing rule associated with the business unit is used.

Project Financial Management applications apply the costing rule to determine the cost rate for the expenditure item. You can associate a cost rate schedule with an organization labor costing rule to determine the cost rate.

Related Topics

- Rate Schedule Types

FAQs for Rate Schedules

What's the order of precedence for cost rate determination?

If cost rate overrides exist for a person, job, or expenditure type at the project or task level, then that rate applies for cost rate processing for each transaction.

Otherwise, the application uses the rates from labor costing rules or rate schedules.

Labor Costing Multipliers

Example of Creating Labor Costing Multipliers

Set up the labor costing multipliers using the Manage Labor Costing Multipliers task. The application uses the labor costing multiplier to calculate the overtime labor cost rate for an employee using the formula:

Labor Cost Rate × Labor Costing Multiplier = Overtime Premium Labor Cost Rate

The application then multiplies the overtime premium labor cost rate by the number of overtime hours that an employee works to calculate the overtime premium for the employee. This is represented by the following formula:

Overtime Premium Labor Cost Rate × Overtime Hours = Overtime Premium

Labor Costing Multipliers

You define a labor costing 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 2.0. You multiply the employee's labor cost rate by 2.0 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 1.5 to calculate the employee's overtime premium labor cost rate. An employee's total labor cost is the overtime premium plus the straight time cost. This is represented by the following formula:

$$\text{Overtime Premium} + (\text{Straight Time Hours} \times \text{Labor Cost Rate}) = \text{Total Labor Cost}$$

The following table shows examples of labor cost multipliers for double time, time and a half, and uncompensated overtime.

Labor Costing Multiplier Name	Multiplier
Double Time	2.0
Time and a Half	1.5
Uncompensated Overtime	0

Labor Costing Rules

Labor Costing Rules

A labor costing rule determines how an employee is paid. Use the Manage Labor Costing Rules setup task to define labor costing rules. For example, you can define a labor costing rule for pay types such as exempt, nonexempt, uncompensated, compensated, and hourly.

When an employee charges time to a project, the application processes the labor hours according to the employee's labor costing rule. For example, if an employee's labor costing rule is Hourly, the employee is eligible for overtime pay. If the employee's labor costing rule is Exempt, the employee isn't eligible for overtime pay.

Following are the key components of a labor costing rule:

- Costing method
- Overtime labor costing multipliers

Costing Method

For labor costing rules with the Rates costing method, labor costs are calculated for entered hours using hourly cost rates.

Overtime Labor Costing Multipliers

If your employees enter overtime hours manually, you can assign cost multipliers to overtime expenditure types. When you use the Rates costing method, and a transaction is charged to an expenditure type that has an assigned multiplier, the application applies the multiplier as labor costs are calculated.

To calculate rates for overtime expenditure items, before you define labor costing rules, you must define an expenditure type with the Overtime expenditure type class.

Related Topics

- How Overtime Calculation Components Work Together

Example of Defining Labor Costing Rules

This example illustrates setting up labor costing rules to calculate overtime labor costs.

Scenario

You're asked to set up labor costing rules to calculate overtime labor costs for nonexempt and hourly employees for the InFusion Corporation.

Overtime Costs

All overtime premium costs for nonexempt employees are charged to an indirect project. Hourly employees are required to enter overtime hours manually. All labor costs, including overtime premiums, are charged to the project and task indicated on the time card.

For nonexempt employees, the expenditure types for overtime transactions are derived from the overtime labor cost multipliers that are assigned to the labor costing rule. For hourly employees, when time is charged to an overtime expenditure type, the application applies the costing multiplier assigned to the labor costing rule when labor costs are calculated.

Labor Costing Rule Details

The following table shows the labor costing rules for InFusion Corporation:

Labor Costing Rule	Costing Method	Project	Task
Nonexempt	Rates	Overtime	Time and a Half
Hourly	Rates		

The following table shows the overtime labor cost multipliers that are associated with the labor costing rules:

Labor Costing Rule	Expenditure Type	Labor Cost Multiplier
Nonexempt	Overtime	Time and a Half
Hourly	Overtime	Time and a Half
Hourly	Premium Overtime	Double Time

Labor Costing Overrides

Options for Setting Up Labor Costing Overrides

You can override the labor costing definition for individual employees and contingent workers for a business unit. The application uses a labor costing override to determine the labor rate for cost transactions.

You can use labor costing overrides to plan, budget, and forecast transactions when you use an actual plan types.

Following are the key implementation concepts for setting up labor costing overrides:

- Override for a Person, Job, And Organization
- People with Future-Dated and Terminated Assignments

Override for a Person, Job, and Organization

You specify the labor costing override for a person, or for a more granular override, specify a combination of person and job, or person, job, and organization.

The job and organization represent the human resources job and organization of the person. The jobs that you can select to associate with a labor costing override are based on the person value. The organizations that you can select are based on the job value. When you select a job, an organization is automatically selected by default. The default organization value is based on the selected job assignment. You can accept the default organization for the labor costing override, select a different organization that is associated with the job and person, or remove the organization so the labor costing override is for person and job combination.

In the example shown in the following table, a person is assigned the Nurse job in two different organizations. When you select Nurse to create a labor costing override, the application automatically selects the default organization General Hospital. You can accept the General Hospital default organization, or change the selection to the University Hospital organization, to create an override for the person, job, and organization combination. Alternatively, you can remove the organization value to create an override for the person, job, and any organization.

Job	Department	Organization	Person Type	Primary
Nurse	Administration	General Hospital	Employee	Yes
Nurse	Optometry	University Hospital	Contingent Worker	No

People with Future-Dated and Terminated Assignments

You can set up labor costing overrides for people with a start date in the future if you enable the People with Future Effective Start Dates as Project Members Allowed profile option. You can set up labor costing overrides for people with terminated assignments if you enable the Number of Days to Display People with Terminated Assignments profile option.

Labor Costing Business Unit Options

How Overtime Calculation Components Work Together

If you charge overtime costs to a project, you can record the cost premium that you pay for overtime. Your business can then recover overtime costs with higher bill rates or overhead rates.

You can manually enter time card transactions to calculate overtime hours and charge them to a project.

Other components of overtime cost calculations are:

- Rates Costing Method
- Overtime Expenditure Types
- Labor Costing Multipliers
- Labor Costing Rules
- Overtime Projects and Tasks

Rates Costing Method

If you enter overtime hours manually, you can assign labor cost multipliers to overtime expenditure types. The rates costing method applies labor costing multipliers to transactions charged to an expenditure type assigned with labor cost multipliers. To calculate rates for overtime expenditure items, you must define first an expenditure type with the Overtime expenditure type class, then define labor costing rules.

When you charge overtime to the project on which overtime was worked, you can track all overtime costs on one expenditure item. The application uses the following formula to calculate the overtime premium cost:

The overtime premium cost equals the product of overtime hours, hourly cost rate, and labor cost multiplier.

overtime premium cost = overtime hours * hourly cost rate * labor cost multiplier

Overtime Expenditure Types

You must set up at least one overtime expenditure type that is classified by the Overtime expenditure type class. The following table lists examples of overtime premium expenditure types and the corresponding expenditure type class:

Expenditure Type	Expenditure Type Class
Double Time Premium	Overtime
Time and Half Premium	Overtime

Labor Costing Multipliers

Labor costing multipliers are values by which labor cost rates are multiplied to calculate overtime premiums. You define a labor cost multiplier for each type of overtime your business uses, such as double time or time and a half.

For example, if you pay a person double time for all overtime hours, then define a labor cost multiplier of 2.0. The person's labor cost rate is multiplied by 2.0 to calculate the person's overtime premium labor cost rate. If you pay a person time and a half for all overtime hours, then define a labor cost multiplier of 1.5 to calculate the person's overtime premium labor cost rate.

The following formulas calculate the overtime premium cost rate:

- The overtime premium labor cost rate equals the product of the labor cost rate and labor cost multiplier.

  overtime premium labor cost rate = labor cost rate * labor cost multiplier
- The overtime premium cost equals the product of the overtime premium labor cost rate and overtime hours.

  overtime premium cost = overtime premium labor cost rate * overtime hours
- The total labor cost equals the sum of the overtime premium cost and the product of the straight time hours and labor cost rate.

  total labor cost = overtime premium cost +(straight time hours * labor cost rate)

The total labor cost of a person is calculated as shown below:

- The total labor cost equals the sum of the overtime premium cost and the product of the straight time hours and labor cost rate.

  total labor cost = overtime premium cost +(straight time hours * labor cost rate)

For example, assume that a person worked for the usual 8 hours and then 10 hours of overtime at a rate of time and a half. The labor cost multiplier is 1.5 and the person's labor cost rate is $40.00 per hour. The total labor cost of the person is calculated as shown below:

$40.00 * 1.5 = $60.00 per hour = overtime premium labor cost rate

$60.00 * 10 hours = $600.00 = overtime premium cost

$600.00 + (8 * $40) = $920 = total labor cost

Labor Costing Rules

Labor costing rules associate overtime expenditure types with labor costing multipliers and determine how straight time and overtime costs are calculated. When a person charges time to a project, the application calculates the labor hours according to the person's labor costing rule. You specify the default overtime project and overtime task in the labor costing rule to be used for the overtime expenditure items.

Overtime Projects and Tasks

You can define one project to hold all overtime costs, or you can define a separate project for each group or office in your company. For example, create an overtime project for each office. You then charge each employee's overtime hours to the overtime project for the office.

For each overtime project, you must define a task for each type of overtime your business uses. Examples of task names are Time and Half, Double Time, and Uncompensated Overtime.

You must include the logic to charge the appropriate overtime project or task, when you are:

- Using more than one project to hold overtime costs
- Charging overtime hours to an overtime task

Related Topics

- Example of Creating Labor Costing Multipliers

Organization Costing Rules

Organization Costing Rule Components

Use organization costing rules to assign labor costing rules, labor cost rate schedules, and nonlabor cost rate schedules, to business units or specific expenditure organizations.

The schedule type on the organization costing rule determines if the application assigns a labor cost rate schedule or nonlabor cost rate schedule.

The following components work together to determine organization costing rules.

- Business unit and expenditure organization
- Schedule type
- Labor costing rule and cost rate schedule
- Default overtime transaction attributes

Business Unit and Expenditure Organization

If you use organization hierarchies, you can select a business unit for an organization costing rule. You can only select expenditure organizations that belong to the project expenditure organization hierarchy for the selected business unit. If you don't select a business unit for an organization costing rule, you can select any expenditure organization that belongs to any project expenditure organization hierarchy.

You can assign an organization labor costing rule to an organization that isn't classified as a project expenditure organization. In this case, the labor costing rule applies to all organizations that are below the specified organization in the project expenditure organization hierarchy. An exception to this rule is a labor costing rule that you assign directly to an organization at a lower level in the hierarchy.

For example, assume a hierarchy has three organizations: Organization 1, Organization 2, and Organization 3. Organization 1 is the parent of Organization 2. Organization 2 is the parent of Organization 3. Organization 3 is the only organization that is classified as a project expenditure organization. If you assign organization labor costing rules only to Organization 1 and Organization 2, the rule that you assign to Organization 2 takes precedence for Organization 3.

Schedule Type

Use the Labor schedule type to use labor cost rate schedules to calculate costs for labor transactions such as time cards. If you select a schedule type of Labor, you must enter a labor costing rule.

Use the Nonlabor schedule type to use nonlabor cost rate schedules to calculate costs for nonlabor transactions such as miscellaneous or usage transactions. If you select a schedule type of Nonlabor, you must enter a nonlabor cost rate schedule.

If you configured the plan type to use actual rates, the pricing engine also uses these rates for planning, budgeting, and forecasting transactions.

The application uses the organization if it's part of the resource definition; otherwise, it uses the project owning organization. The project owning business unit is always the business unit in the planning flow.

Labor Costing Rule and Cost Rate Schedule

To calculate labor costs, you must assign a labor costing rule to each organization costing rule. You assign a labor costing rule to the organization costing rule. If the labor costing rule has a costing method of Rates, you must also assign a cost rate schedule that defines the hourly cost rates for employees in the selected organization.

The labor costing rules and cost rate schedules that you assign to an organization apply to all employees in the organization.

8 Project Foundation Configuration: Project Resource Breakdown Structures

Planning and Billing Resource Breakdown Structures

How You Set Up Planning Resource Breakdown Structures

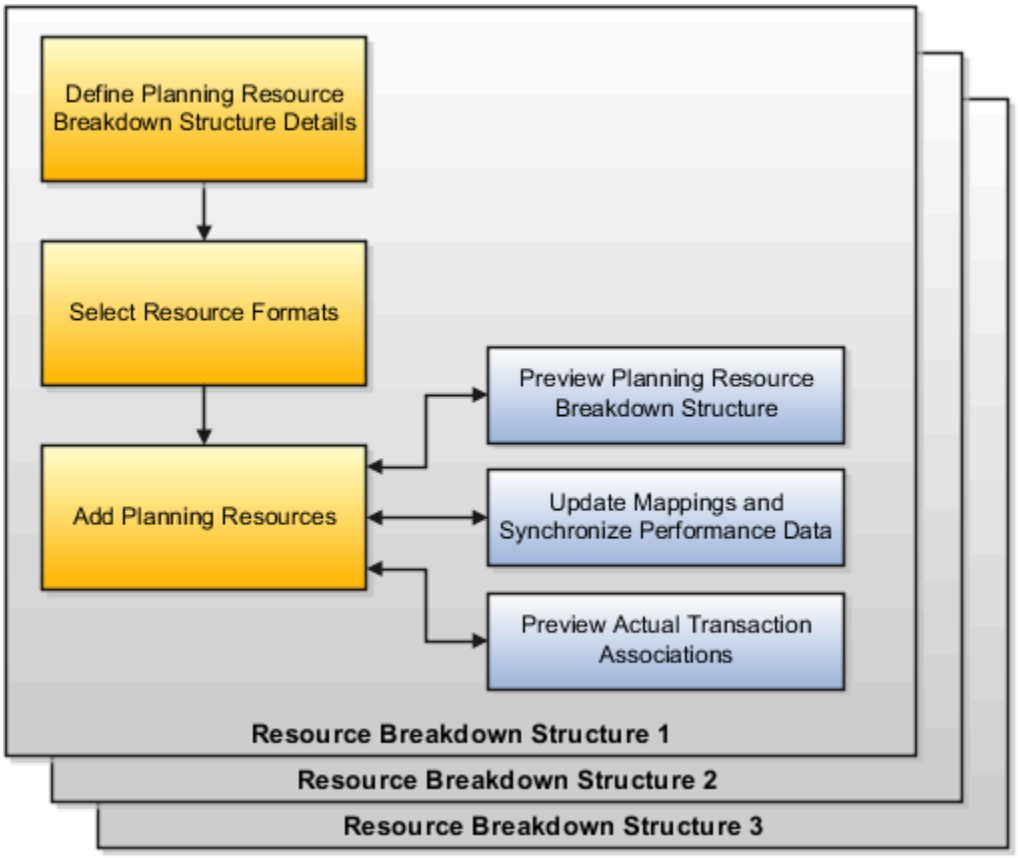
A planning resource breakdown structure is a list of resources available for planning, budgeting, and forecasting.

Resources are a combination of up to three resource types, such as person and expenditure type. The resource types are organized into a hierarchy called a resource format.

Before you can set up resource breakdown structures, you must set up the following:

- Attributes, such as a spread curve, for each resource class:
    - Labor
    - Equipment
    - Material items
    - Financial resources
- Inventory items, including item categories and item cost, if applicable.
- Resource elements:
    - Event types
    - Expenditure categories,
    - Expenditure types
    - Jobs
    - Organizations
    - People
    - Revenue categories
    - Roles
    - Suppliers

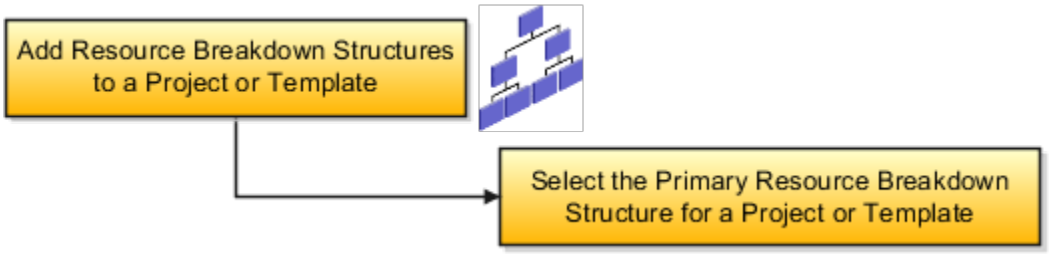
Setting up planning resource breakdown structures is a three-step guided process. The following graphic illustrates the flow of planning resource breakdown structures as they're created.



As shown in the graphic, the steps to set up planning resource breakdown structures include the following:

- Define planning resource breakdown structure details
- Select resource formats
- Add planning resources

The last two steps are shown in following graphic, which includes adding resource breakdown structures to a project or template and selecting the primary resource breakdown structure during project or template definition.



Resource Breakdown Structure Details

Planning resource breakdown structure details include:

- The date range during which this planning resource breakdown structure is available to assign to projects.
- The project unit.
- An indicator that specifies whether resource changes are allowed at the project level.

- An indicator that specifies whether, on incurring actual amounts, resources are added automatically to the primary planning resource breakdown structure when it allows changes at the project level.

If you don't allow changes at the project level, then all projects share the same set of resources. You maintain resources centrally, and you can't selectively add new resources to individual projects. New resources must be added to the resource breakdown structure. When you add resources to the resource breakdown structure, they're immediately available to all projects.

If you allow resource changes at the project level, then the application copies resources to a project-specific version of the resource breakdown structure. You can then add resources to each project independently. However, when you add new resources to the central resource breakdown structure after the project-specific version is created, the new resources aren't automatically available to existing projects. You must add the resources separately to each project. The resource formats are shared across projects and can't be modified for an individual project.

When **Automatically add resources on incurring actual amounts** check box is selected, the resource is added to the planning resource breakdown structure as follows:

- If the resource format for the resource exists on the planning resource breakdown structure, then the resource is directly added to the planning resource breakdown structure.
- If the resource format for the resource doesn't exist on the planning resource breakdown structure, then the application verifies if a higher level resource format exists and then adds the resource directly to the planning resource breakdown structure. If a higher level resource format doesn't exist, then the resource is mapped to one of the generic resource classes.

The **Automatically add resources on incurring actual amounts** option isn't applicable for projects that are enabled for budgetary controls. Projects enabled for budgetary control need a stringent control on resources incurring project costs.

You can disable the Labor, Equipment, and Material Items resource class. When you disable a resource class, any transactions incurred on that resource class gets associated with the Financial Resource class. For more information, see the *Create Planning Resource Breakdown Structures* topic.

Resource Formats

You select resource formats to add to the planning resource breakdown structure.

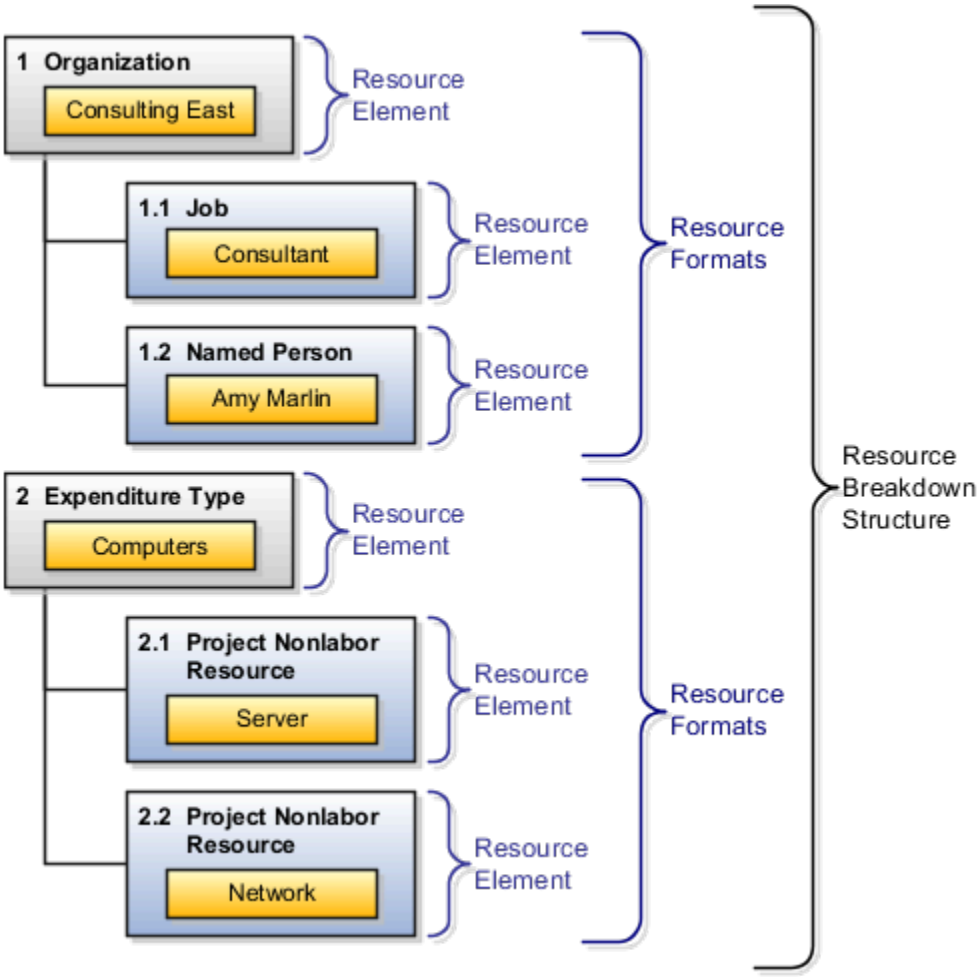
Planning resource breakdown structures can have resource formats with up to three hierarchical levels of resource types, as shown in the following example:

- Organization
    - Expenditure category
        - Named person

If you select a child resource format, the application automatically selects the parent. For example, if you select the resource format of organization-expenditure category-named person, the application automatically selects the organization-expenditure category format and the organization format.

The resource breakdown structure consists of one or more hierarchies of resource elements. An element is a resource type, such as an organization or job, or a combination of resource type and specified resource, such as the job of consultant or a person named Amy Marlin.

The following graphic shows examples of hierarchical levels of resource elements:



Planning Resources

You can add planning resources to any level of the resource format. You're not required to add resources to every level.

For example, assume that your resource breakdown structure has a resource format with three hierarchical levels. The top level is organization, the second level is expenditure category, and the third level is named person. You can add an organization resource to the first level, an organization and expenditure category resource to the second level, and an organization, expenditure category, and named person resource to the third level. Similarly, if you add a named person at the third level, the organization and expenditure category entered at the third level are automatically created as resources at the first and second level.

After you add planning resources to the resource breakdown structure, you can preview actual transaction associations to find out where actual transaction amounts would be mapped in the project plan, budget, or forecast.

You update the resource mappings for plans, budgets, and forecasts that use the planning resource breakdown structure. When you update the mappings, the process synchronizes the project performance reporting data with the planning resource breakdown structure.

> **Note:** This update process is only required if the planning resource breakdown structure is changed after the project has been initiated and budget, forecast, or actual data has already been entered.

Primary Resource Breakdown Structure

You designate one planning resource breakdown structure as the primary structure on a project. The application uses the primary planning resource breakdown structure for project planning.

Related Topics

- Resource Formats
- Resource Classes
- How to Use Resource Formats and Resource Classes to Create Planning Resources
- How Resource Mapping is Calculated

Billing Resource Breakdown Structures

Use a billing resource breakdown structure to manage billing controls.

You need only a single level billing resource breakdown structures to create billing controls.

Predefined Billing Resource Breakdown Structures

Oracle Fusion Projects provides the following two predefined billing resource breakdown structures:

- *Control Billing*: Provides a list of resources you can reference when creating billing controls on regular contracts.
- *Control Intercompany Billing*: Provides a list of resources you can reference when creating billing controls on intercompany and interproject contracts.

You can't create or delete these billing resource breakdown structures. You can edit the resource formats and specify the associated billing resources to meet the needs of your enterprise.

Related Topics

- How You Set Up Planning Resource Breakdown Structures

How to Use Resource Formats and Resource Classes to Create Planning Resources

The resources you can create for planning and billing resource breakdown structures are determined by a combination of predefined resource classes and the resource format hierarchies you select for use.

Resource Formats and Resource Format Hierarchies

Before creating planning or billing resources, you must select the resource formats and resource format hierarchies you want to use on your resource breakdown structure. For example, if you want to plan for project-related expenses such as air fare, then you must select resource format hierarchies created using the resource type **Expenditure Type**.

Also, as resource format hierarchies support up to three levels, selecting from the available hierarchies enables you to determine the granularity with which resources are created.

For example, for planning resource breakdown structures used for high-level or preliminary planning, you may decide to enable only the **Resource Class** resource format. You can then create and use planning resources representing the four resource classes: Labor, Equipment, Material Items, and Financial Resources.

To plan in greater detail, you may decide to use a two-level resource format hierarchy, such as **Resource Class: Job** or a three-level hierarchy such as **Resource Class: Job: Named Person**. You can then create a resource such as Labor: Electrical Engineer or Labor: Electrical Engineer: Chris Black.

Selecting more granular resource formats automatically selects resource formats higher up within the same hierarchy. For example, if you select the resource format **Expenditure Type: Named Person: Job**, then the resource formats **Expenditure Type: Named Person** and **Expenditure Type** are automatically selected for use.

Resource Classes

Resource classes influence the creation of planning and billing resources in the following ways:

- Resource class as a resource format: As mentioned earlier, **Resource Class** is a resource type that is available for use within resource format hierarchies on planning and billing resource breakdown structures.
- Predefined association with resource formats: For each resource format, you can create planning or billing resources based on certain resource classes. For example, if the resource format contains Job, then the only available resource class is Labor. However, if the resource format is Expenditure Category, then you can select any of the resource classes (Labor, Material, Equipment, and Financial Resources) when you create a resource.

Related Topics

- Resource Formats
- Resource Classes

Resource Formats

Resource formats are predefined resource types or hierarchies of resource types. You create resources for planning or billing resource breakdown structures based on resource formats.

Following is a description of resource types and resource format hierarchies.

Resource Types

Resource formats are created based on the following predefined resource types.

Name	Description
Named Person	Employee or a contingent worker who performs services for the deploying enterprise.
Event Type	Implementation-defined classification of events that determines the revenue and invoice effect of an event.
Expenditure Category	Implementation-defined grouping of expenditure types by type of cost.

Name	Description
Expenditure Type	Classification of cost assigned to each expenditure item. Expenditure types are grouped into cost groups (expenditure categories) and revenue groups (revenue categories).
Item Category	Categorization of inventory items that is used to track the aggregate consumption of material.
Inventory Item	An item that can be purchased or produced, and for which you can budget and track the costs associated with the consumption of the item.
Job	A set of duties to which an employee can be assigned.
Organization	Divisions, groups, cost centers, or other organizational units within a company.
System Person Type	Distinguishes employees and contingent workers. For example, assume that a project requires 100 hours of labor effort and you have resources only for 80 hours. You can plan 80 hours of employee time and 20 hours of contingent worker time on the project.
Project Nonlabor Resource	Implementation-defined asset or pool of assets. An asset may represent actual pieces of equipment whose time is consumed, or an asset whose output is consumed.
Resource Class	Higher-level grouping of planning resources, into labor, equipment, material items, and financial resources, that drives how resources are used.
Revenue Category	Implementation-defined grouping of expenditure types by type of revenue.
Supplier	A business or individual that provides goods or services, or both in return for payment.
Project Role	Represents either a requirement or an assignment on a project, such as a project manager or project team member. To use the project role as a resource format, you need to add the format to the associated primary resource breakdown structure (PRBS).

Resource Format Hierarchies

Resource formats consist of one resource type or a hierarchy of up to three resource types. Before you add planning resources to a planning or billing resource breakdown structure, you must select the resource formats you want to use. For example, you can add the resource formats **Job**, **Job: Organization**, and **Job: Organization: Named Person** to your resource breakdown structure.

The resource formats and resource format hierarchy determine how planning amounts roll up and are displayed when you view financial and project plans by resource structure. Thus, each resource format hierarchy represents a separate structure. For example, the resource format hierarchies **Job: Expenditure Type: Organization** and **Organization: Expenditure Type: Job** are distinct.

Related Topics

- How to Use Resource Formats and Resource Classes to Create Planning Resources

How Resource Mapping is Calculated

The Update Mapping process matches actual costs and revenue to the latest planning resources for project planning and forecasting. Summarized actual costs and revenue are recalculated for project performance reporting.

Resource Mapping Considerations

Consider these points when using the Update Mapping process:

- You can update resource mappings after you change resource formats or add resources and save the resource breakdown structure.
- Baseline project plan values aren't affected by the Update Mapping process.
- The Update Mapping process applies only if you don't allow resource changes at the project level.

  > **Tip:** If you allow resource changes at the project level, use the Update Actual Amounts action on the project plan to update the actual amounts for all tasks on the project plan. Use the process monitor to start the process to summarize project performance data for reporting.

- After running the Update Mapping process, regenerate forecast versions to reflect the new actual costs.

How Costs Map to Resources

You can track costs of every resource that's assigned to a task and use the resource breakdown structure to view the breakdown of these costs. When costs are incurred, the application first checks for the best match in the resource breakdown structure. If not found, it tries to find the nearest match based on the rules of precedence.

The application attempts mapping from a lowest level resource format if the transaction associates to it. A three-level resource format (for example, Expenditure Type: Named Person: Job) is evaluated before evaluating a two-level resource format (for example, Expenditure Type: Named Person).

The application follows these rules to associate costs with resources:

- If there is only one level to which the transaction associates, then costs are mapped to that level.
- If the transaction associates with different resource formats, the application sums the precedence numbers for all resource types in the branch and gives precedence to the resource element in the branch with the lowest sum.
    - If more than one branch has the lowest precedence number at the lower level, the application uses the precedence number of the next level up.
    - If the sum of precedence numbers is the same for more than one branch, precedence is given to the branch with the lowest number at the lowest level.
    - If one branch contains a user-defined resource type, precedence is given to the branch that doesn’t contain a user-defined resource type.

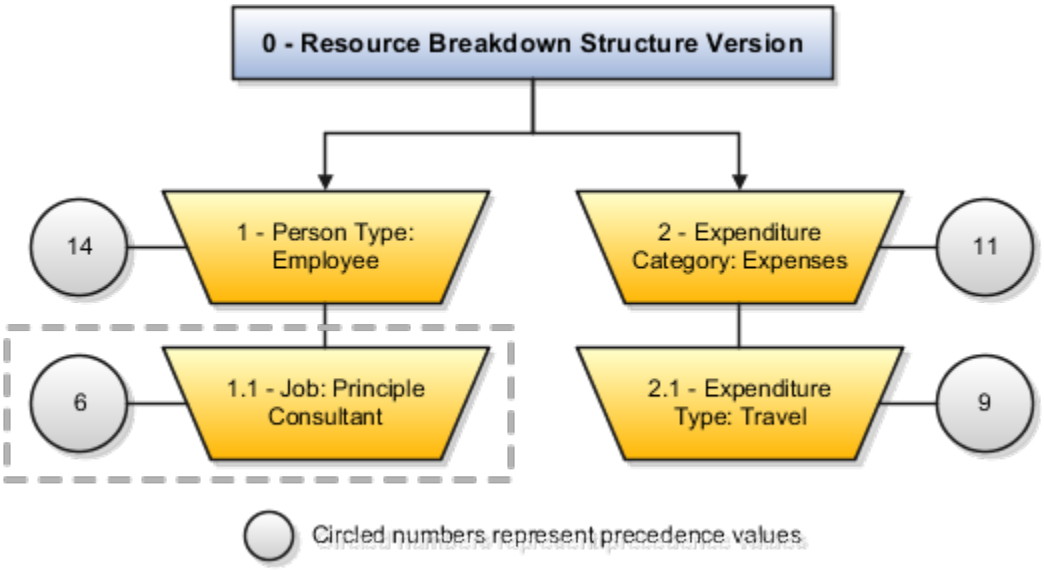
Projects give more precedence to a lower precedence number. For example, a resource element with a precedence number of *1* is given precedence over a resource element with a precedence number of *10*.

The following table lists the precedence numbers:

Resource Type	Precedence in Labor Resource Class	Precedence in Equipment Resource Class	Precedence in Material Items Resource Class	Precedence in Financial Resources Resource Class
Named Person	1	1	1	1
Project Nonlabor Resource	3	3	3	3
Inventory Item	5	5	5	5
Job	6	6	6	6
Item Category	8	8	8	8
Expenditure Type	9	9	9	9
Event Type	10	10	10	10
Expenditure Category	11	11	11	11
Revenue Category	12	12	12	12
Organization	13	13	15	15
System Person Type	14	14	14	14
Supplier	15	15	13	13
Resource Class	16	16	16	16

Example of Resource Mapping Using Rules of Precedence

This example illustrates that precedence is given to the branch with the lowest number at the lowest level if the sum of precedence numbers is the same for more than one branch.



In this example, a time card transaction for a principle consultant who incurs travel expenses maps to two branches.

- The first branch consists of two levels (*1-Person Type: Employee* and *1.1-Job: Principle Consultant*). The highest level has a precedence number of *14*, and the lowest level has a precedence number of *6*, for a sum of *20* for the branch.
- The second branch also consists of two levels (*2-Expenditure Category: Expenses* and *2.1-Expenditure Type: Travel*). The highest level has a precedence number of *11*, and the lowest level has a precedence number of *9*, for a sum of *20* for the branch.

The transaction cost amount is mapped to the *Job: Principle Consultant* resource element because it has the lowest number (*6*) at the lowest level.

Example of How Costs Map to Resources

Suppose that you created a planning resource breakdown structure named PRBS. While creating PRBS, you selected the Expenditure Type: Named Person: Job resource format. The application automatically selects Expenditure Type: Named Person and Expenditure Type resource formats. Now, the resource format hierarchy for PRBS is as follows:

- Expenditure Type
- Expenditure Type: Named Person
- Expenditure Type: Named Person: Job

The planning resources added to the resource combinations are as follows:

Resource Combination	Planning Resources
Expenditure Type	Consulting
Expenditure Type	Carpenter

Resource Combination	Planning Resources
Expenditure Type: Named Person	Consulting: Emily
Expenditure Type: Named Person	Carpenter: Amy
Expenditure Type: Named Person: Job	Carpenter: Amy: Manager

Next, you processed two cost transactions with these values:

Transaction Number	Expenditure Type	Person Name	Job
1	Carpenter	Amy	Principal Consultant
2	Professional	Emily	Consultant

Now, let's see how costs are mapped to these planning resources:

- Let's say an assignment exists for Carpenter: Amy: Manager on one of the project tasks. When costs are incurred, although the planning is done for Carpenter: Amy: Manager, the application creates Carpenter: Amy as an unplanned resource and maps costs to it because:
  - While creating the transaction, Amy's job is set to Principal Consultant and this is different from what's available in PRBS.
  - The Carpenter: Amy resource format and the resource are available in PRBS.
- When costs are incurred for Emily, the application maps costs to Labor. Although the named person exists, costs aren't mapped to the Expenditure Type: Named Person resource combination that's available in PRBS.

  Note: Emily isn't available on PRBS as an independent entity. Also, while creating the transaction, Emily's Expenditure Type is set to Professional and Job is set to Consultant and these are different from what's available in PRBS. As the application didn't find any match, it mapped the costs to the Labor resource class.

Mapping Costs to Generic Resource When the Resource is Not Planned on the Task

When a matching resource exists in the resource breakdown structure but not planned on the task, the application maps the costs to a generic resource instead of creating an unplanned cost.

Suppose that the resource breakdown structure has the following resource formats:

Resource Formats	Example
• Resource class • Resource class: Expenditure Type • Resource class: Expenditure Type: Job	• Labor • Labor: Professional • Labor: Professional: Consultant • Labor: Professional: Amy

Resource Formats	Example
• Resource class: Expenditure Type: Named Person	

When a resource is defined at the job level and not at the named person level, the application determines that the actual cost matches the Labor: Professional: Consultant resource that's available in the resource breakdown structure. It then checks if the task has the exact resource planned. If so, it maps the cost to that planned resource, which in this case is Labor: Professional : Consultant.

When a resource is defined at the person level and a higher level resource isn't planned on the task, the application determines that the actual cost matches the Labor: Professional: Amy resource that's available in the resource breakdown structure. It then checks if the task has the exact resource planned. If there is no exact match, it further checks if a higher level resource (for example, Labor: Professional or Labor) is planned at the task. If it doesn't find a match, it creates the best matching resource from the resource breakdown structure as an unplanned resource and maps the cost to that unplanned resource, which in this case is Labor: Professional : Amy.

When a resource is defined at the person level and a higher level resource is planned on the task, the application determines that the actual cost matches the Labor: Professional: Amy resource that's available in the resource breakdown structure. It then checks if the task has the exact resource planned. If there is no exact match, it further checks if a higher level resource (for example, Labor: Professional or Labor) is planned at the task. It finds that a match exists for Labor and maps the cost to that planned resource, which in this case is Labor.

How Resources are Mapped When Update Financial Project Plan and Progress is Submitted

The Update Financial Project Plan and Progress action on the Manage Project Plan page transfers the project plan and progress information to the Manage Financial Project Plan page. Each time you submit this action, the application replaces all planning information in the financial project plan, including any planning done directly on the Manage Financial Project Plan page, with the latest plan from the Manage Project Plan page.

During this process, the application checks and maps the named person and expense resources to the best match in the planning resource breakdown structure. If not found, it tries to find the nearest match based on the rules of precedence. For information about the precedence rules, see *How Resource Mapping is Calculated*.

> **Note:** The resources are mapped similarly when you enable a project for financial management or generate a project budget or forecast from project resources.

Precedence to the Format that Contains Named Person

If the project plan that's being transferred contains the named person and the planning resource breakdown structure has a resource format that contains the named person at any level, then the named person from the project plan is mapped to the Named Person resource. For example, if the planning resource breakdown structure contains the Named Person and Job: Organization resource formats, then precedence is given to the Named Person resource format. If there are multiple Named Person resource formats, then the precedence is given to the most granular level considering all the resource formats. For example, if the planning resource breakdown structure contains the Organization: Named Person and Organization: Named Person: Job resource formats, then mapping is done to the Organization: Named person: Job resource format.

Example of Precedence to the Format that Contains Named Person

Suppose that you created a planning resource breakdown structure with Named Person and Organization: Job resource formats.

The planning resources added to the resource combinations are as follows:

Resource Combination	Planning Resources
Named Person	David
Organization	Vision Operations
Organization: Job	Vision Operations: Principal Consultant

David is a Principal Consultant in Vision Operations and is assigned as a resource on a task in the project plan. Now, when the Update Financial Project Plan and Progress action is submitted, the resource is mapped to the Named Person David.

Reporting Resource Breakdown Structures

Reporting Resource Breakdown Structure Versions

Use reporting resource breakdown structures to view the rolled-up data in Oracle Fusion Project Performance Reporting. The structure provides a method for viewing planned and actual cost and revenue for a project by resource, resource type, and other resource groupings.

Versions

Reporting resource breakdown structure versions provide a history of resource breakdown structures used for resource reporting.

When a resource breakdown structure is created, a working version is automatically created. You can have only one working version at a time. You can make changes to the working version until you are ready to freeze it.

Only a frozen version can be associated with a project. When you freeze one version, a new working version is created on which you can make further changes.

When you freeze a resource breakdown structure version, that version becomes the current reporting version the next time project performance data is summarized. Although you can have multiple frozen versions, only one is used for current reporting at any given time.

Resource Types and Resources

All planning resource breakdown structures can be used for reporting.

In addition, you can build reporting resource breakdown structures based on the resource types and resources already defined in the application. Select the resource type and specify the associated resource for each level of the hierarchy. You can create up to ten hierarchical levels in a reporting resource breakdown structure. This is different than planning resource breakdown structures, which may contain up to three hierarchical levels.

The User Defined resource type enables you to define your own groups of resources. Select the User Defined resource type, enter a free-form definition of the group, and then create hierarchical levels that link the actual resource types and resources.

Cost Allocations

Enable the **Use For Allocations** option if you want to allocate costs with this reporting resource breakdown structure.

If you enable this option, you can select this reporting resource breakdown structure when defining source and target details for an allocation rule. In this situation, the reporting resource breakdown structure must be assigned to all source or target projects.

Related Topics

- Resource Formats
- How You Set Up Planning Resource Breakdown Structures
- How Resource Mapping is Calculated

FAQs for Project Resource Breakdown Structures

Can I add new resource formats?

No. Oracle Fusion Project Portfolio Management provides a set of predefined resource formats. You select resource formats as the basis for adding resources to planning and billing resource breakdown structures.

Can I add new billing resource breakdown structures?

No. You can't create billing resource breakdown structures. You can only add billing resources to the two predefined billing resource breakdown structures, Control Billing and Control Intercompany Billing.

What's a default planning resource breakdown structure?

A planning resource breakdown structure consisting of one resource format (resource class) with four associated planning resources: Labor, Equipment, Material Items, and Financial Resources.

A default planning resource breakdown structure is created automatically for each project unit. When you create a project template, the default planning resource breakdown structure is selected as primary, but you can designate

any other one. Once you designate, you cannot remove the planning resource breakdown structure from the project template or project.

What's a primary resource breakdown structure?

A planning resource breakdown structure that is selected as the primary at the project template or project level. The primary planning resource breakdown structure is used for project planning.

When you create a project template, the default planning resource breakdown structure for the project unit is automatically added and set as primary. You can add additional planning resource breakdown structures to the template and set any one of them as primary. Projects inherit planning resource breakdown structures from the associated template. As with templates, you can add or remove planning resource breakdown structures and change the primary designation as required.

Related Topics

- What's a default planning resource breakdown structure?

What's the difference between a planning, billing, and reporting resource breakdown structure?

Planning resource breakdown structures provide a list of resource formats and associated planning resources that you can use for project and financial planning, and optionally, project reporting.

Billing resource breakdown structures are similar in organization to planning resource breakdown structures. However, only two predefined billing resource breakdown structures exist and they provide a restricted set of implementation-defined resource formats and billing resources that are used for invoicing and recognizing revenue for contracts.

Reporting resource breakdown structures provide a resource hierarchy consisting of resources, resource types, and other resource groupings, which is used for reporting on planning and actual amounts on a project. Also, unlike planning and billing resource breakdown structures, you can use reporting resource breakdown structures in allocation rules to determine the allocation source and basis amounts.

What happens if I change a name used in a resource combination on a resource breakdown structure?

You must run the Refresh Resource Breakdown Structure Element Names process to refresh the value that appears in the combination.

For example, you have a resource that includes the Telephone Charges expenditure type in the resource combination and you change the name from Telephone Charges to Communication Charges in the Manage Expenditure Types page. The change will not appear in the resource combination until you run the process.

Why can't I change the name of a planning resource?

You cannot change the name of a planning resource after the planning resource breakdown structure is used to create a control budget.

Why can't I find persons in the list of resources when I enter team members, planning resources, or person rate schedules?

You can't find persons in the list of resources when you enter team members, planning resources, or person rate schedules in the following situations:

- The administrator didn't assign a department while creating users. Persons must have an active assignment and be assigned to a department in Oracle Fusion Human Capital Management before they can be added as team members or entered as resources on the planning resource breakdown structure or person rate schedule.
- The resource isn't active in Oracle Fusion Human Capital Management because the current date is before the effective date of the resource. If you want to include persons who will start in the future, select the **Include people with future-dated effective start dates** option when you search for the person.
- Persons assigned as project managers aren't active as of the project start date.
- The assignment of the person is terminated and an appropriate value isn't set for the number of days to display people with terminated assignments. You can set the profile value appropriately at the site profile level using the **Specify Number of Days to Display People with Terminated Assignments** task in the Setup and Maintenance work area.

What happens when I delete a resource from a non-project specific planning resource breakdown structure?

The resource is immediately deleted from the non-project specific planning resource breakdown structure (PRBS) if the PRBS isn’t assigned to any projects.

If the PRBS is assigned to at least one project then deletion of a resource from the UI marks the resource as disabled in the UI. When you run the Update Project Performance Data (UPPD) process then, the process first rolls up the actuals or planned amounts for the resource and then deletes the resource from the PRBS.

What are the resource types supported in the FSM export and import process?

The Functional Setup Manager (FSM) export and import process supports the following resource types:

- Person
- Organizations

- Jobs
- Expenditure categories
- Expenditure types
- Resource class
- Nonlabor resource

To import all the resource types and formats, you can use the PRBS FBDI. For more information, refer to the *How You Set Up Planning Resource Breakdown Structures* section.

9 Project Foundation Configuration: Burdening

Burden Cost Base Types, Bases, and Codes

How Burden Costs Are Calculated

Burdening provides the aggregate of raw and burden costs to represent the total cost of doing business accurately. You can calculate burdened costs as a markup of costs by using a precedence of multipliers.

The application performs a summation of burden costs with raw costs to provide a true representation of costs. Using burdening, you can perform internal costing, revenue accrual, billing, asset capitalization, and budgetary control including the type of burden costs that your company applies to raw costs.

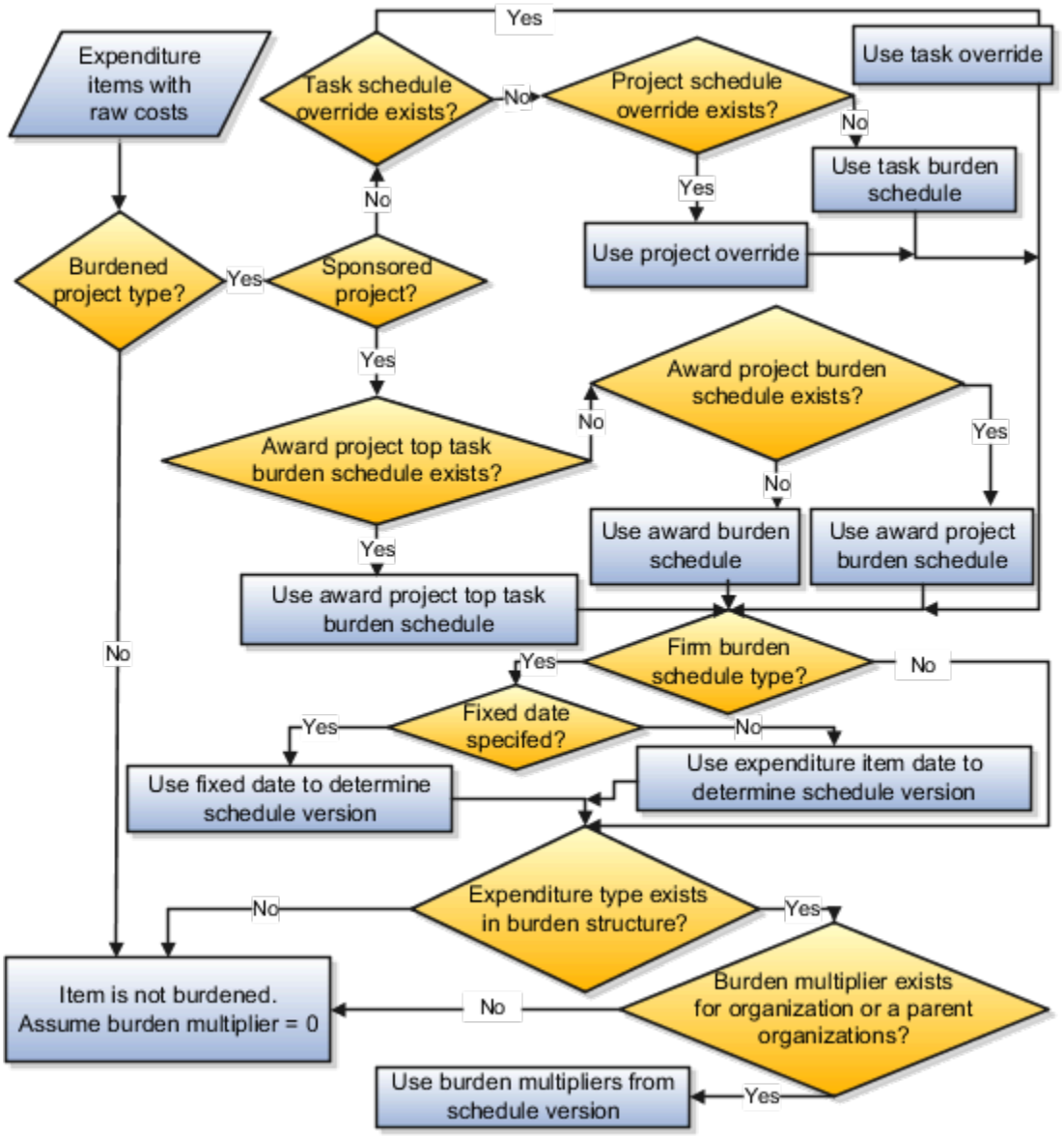
Settings That Affect Burden Cost Calculation Processing

You define the projects that need to be burdened by enabling project types for burdening. When you specify that a project type is burdened, you must then specify the burden schedule to be used. The burden schedule stores the burden multipliers and indicates the transactions to be burdened, based on cost bases defined in the burden structure. You specify the expenditure types that 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 burden schedules for costing, revenue, and billing purposes.

If you enable the option to create separate expenditure items for burden costs at the project type level and the transaction is eligible for budgetary control, then you must associate an expenditure type to the burden cost code in the cost bases of the burden structure.

How Burden Costs Are Calculated

The following graphic shows the decision points and process for calculating burdened costs.



1. The application selects the expenditure items with raw cost amounts for processing.
2. The process determines if the related project type of the expenditure item is enabled for burdening.
3. If the project type is enabled for burdening, then the process determines the burden schedule to be used.
4. If the project type is not enabled for burdening, then the expenditure item is not burdened. The process assumes the burden multiplier is zero; therefore, burden cost is zero and thus burdened cost equals raw cost.
5. To determine which burden multiplier to use, the process determines if there is a burden schedule override for the expenditure.
6. If a burden schedule override exists, then the process uses the task burden schedule override on the associated task. For sponsored projects, the process ignores the task burden schedule overrides.
7. If no task burden schedule override exists on the associated task, then the process uses the project burden schedule override on the associated project. For sponsored projects, the process ignores the project burden schedule overrides.

8. If there are no burden schedule overrides, the process uses the burden schedule assigned at the task level for burden cost calculations.

   For sponsored projects, the process determines the burden schedule to use for burden cost calculations in the following order:

   a. Burden schedule assigned at the summary task level of the award project
   b. Burden schedule assigned at the award project level
   c. Burden schedule assigned at the award level
9. If the burden schedule type is a firm schedule, then the process checks if a fixed date is specified for burdening. If yes, it uses the fixed date to determine the schedule version. If a fixed date isn't specified, then the process uses the expenditure item to determine the burden schedule version.
10. After a schedule version is determined, the process verifies that the expenditure type of the expenditure item is found in any of the cost bases of the selected burden schedule version.
11. If an expenditure type is excluded from all cost bases in the burden structure, then the expenditure items that use that expenditure type aren't burdened (burden cost equals zero, thus burdened cost equals raw cost).
12. The process then checks if burden multipliers exist for the organization to which the cost transaction belongs. If burden multipliers aren't defined for the organization, then the process checks if multipliers are defined for any of the parent organizations in the hierarchy. If burden multipliers don't exist for the organization or any of the parent organizations, then the expenditure isn't burdened.
13. The application calculates burden cost and burdened cost amounts according to the following calculation formulas:

    - For additive burden structures, burden cost equals raw cost multiplied by a burden multiplier.

      burden cost = raw cost * burden multiplier
    - For precedence burden structures, burden cost equals the sum of raw cost and preceding burden costs multiplied by a burden multiplier.

      burden cost = (raw cost + preceding burden cost) * burden multiplier
    - Burdened cost equals the sum of raw cost and burden costs.

      burdened cost = raw cost + burden cost

Burdened Cost Calculation

The burden structure assigned to the burden schedule version determines whether calculations are additive or based on the precedence assigned to each cost code. 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. The examples in the following tables illustrate how burdened cost is calculated as a combination of raw and burden costs and how different burden structures using the same cost codes can result in different total burdened costs.

The following table lists the cost codes and multipliers for calculating burdened cost using the additive burden structure.

Cost Code	Precedence	Multiplier
Overhead	1	0.10
Material Handling	1	0.10

Cost Code	Precedence	Multiplier
General Administrative Costs	1	0.10

The following table describes an example of calculating the burdened cost using the additive burden structure for an expenditure item that is not rate based.

Cost Type	Calculation	Amount
Raw Cost	Not Applicable	1000.00
Overhead	1000.00 * 0.10	100.00
Material Handling	1000.00 * 0.10	100.00
General Administrative Costs	1000.00 * 0.10	100.00
Burdened Cost	1000.00 + 100.00 + 100.00 + 100.00	1300.00

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 calculation applies the multiplier for the cost code with the lowest precedence number to the raw cost amount.

The calculation applies the cost code with the next lowest precedence to the subtotal of the raw cost plus the burden cost for the first multiplier. The calculation logic continues in the same way through the remaining cost codes. If two cost codes have the same precedence number, then both are applied to the same subtotal amount.

The following table lists the cost codes and multipliers for calculating burdened cost using the precedence burden structure.

Cost Code	Precedence	Multiplier
Overhead	10	0.10
Material Handling	20	0.10
General Administrative Costs	30	0.10

The following table describes an example of calculating the burdened cost using the precedence burden structure for an expenditure item that is not rate based.

Cost Type	Calculation	Amount
Raw Cost	Not Applicable	1000.00

Cost Type	Calculation	Amount
Overhead	1000.00 * 0.10	100.00
Material Handling	(1000.00 + 100.00) * 0.10	110.00
General Administrative Costs	(1000.00 + 100.00 + 110.00) * 0.10	121.00
Burdened Cost	1000.00 + 100.00 + 110.00 + 121.00	1331.00

The order of the burden cost codes has no effect on the total burdened cost with either additive or precedence burden structures.

Related Topics

- Recalculate Burden Costs

Example of Creating Burden Cost Bases

You use burden cost bases in burden structures to group the burden cost codes with expenditure types. You create burden cost bases to support unique groupings of burden cost codes and expenditure types.

The following scenario illustrates burden cost bases that are used to group raw costs for the purpose of calculating burdened costs.

Burden Cost Bases

Burden cost bases with the type Burden Cost, shown in the following table, group raw costs to calculate burdened costs. Reports sort cost bases first by the Report Order value and then by the Cost Base name.

Cost Base	Report Order	Cost Base Type
Labor	10	Burden Cost
Material	20	Burden Cost
Expense	30	Burden Cost

Note: The Burden Cost and Other cost base types are predefined.

Example of Creating Burden Cost Codes

The following scenario illustrates burden cost codes that represent distinct types of burden to apply to raw costs.

Burden Cost Codes

Burden cost codes are created for each type of burden that will be applied to raw costs, and are defined on the Manage Burden Cost Codes page. In this example, assume that labor raw costs are burdened with fringe benefits, overhead, and administrative costs. Material raw costs are burdened with material handling fees and administrative costs. Expenses are burdened only with administrative costs.

You can optionally assign an expenditure type to any burden cost code to capture burden costs on separate, summarized expenditure items. Only expenditure types with a Burden Transactions expenditure type class are available for assignment to a burden cost code. The assigned expenditure type becomes the expenditure type for that type of burden cost.

Ensure that the expenditure types that you assign to burden cost codes are:

- Classified as a Burden Transactions expenditure type
- Assigned to the reference data sets for each project unit that will own projects receiving summarized burden transactions

The following table shows burden cost codes that represent distinct types of burden to apply to raw costs.

Burden Cost Code	Description	Expenditure Type
Administrative	Corporate expenses such as corporate staff and marketing	General and Administrative
Fringe - Faculty	Employer paid payroll costs, insurance, and pension for faculty	Fringe Benefits
Fringe - Staff	Employer paid payroll costs and insurance for staff	Fringe Benefits
Material Handling	Material handling fees	Material
Overhead	Support staff, equipment rental, supplies, building rent, and facilities	Overhead

FAQs for Burden Cost Base Types, Bases, and Codes

What's a cost base type?

Identifies if the burden cost base is used for burden cost calculations or grouping expenditure items. The application provides two predefined cost base types:

- Burden Cost: Used for burden calculations.

When do I assign an expenditure type to a burden cost code?

Burden cost codes are assigned to cost bases. When you assign an expenditure type to a burden cost code, burden cost is processed as a separate, summarized burden transaction.

The expenditure type assigned to a burden cost code must be classified as a burden transaction and belong to the reference data set for the project unit.

> **Note:** To process burden cost on the same line expenditure item, you don't need to assign an expenditure type to a burden cost code.

How can I track the burden cost as direct cost in the Federal Financial Report?

Specify the burden cost code to report the cost as a direct cost in the Manage Burden Cost Codes page.

This burden cost is reported as a direct cost in the Federal Financial Report in Oracle Fusion Grants Management. However, this is stored as a burden cost in all other pages of the application.

Burden Structures

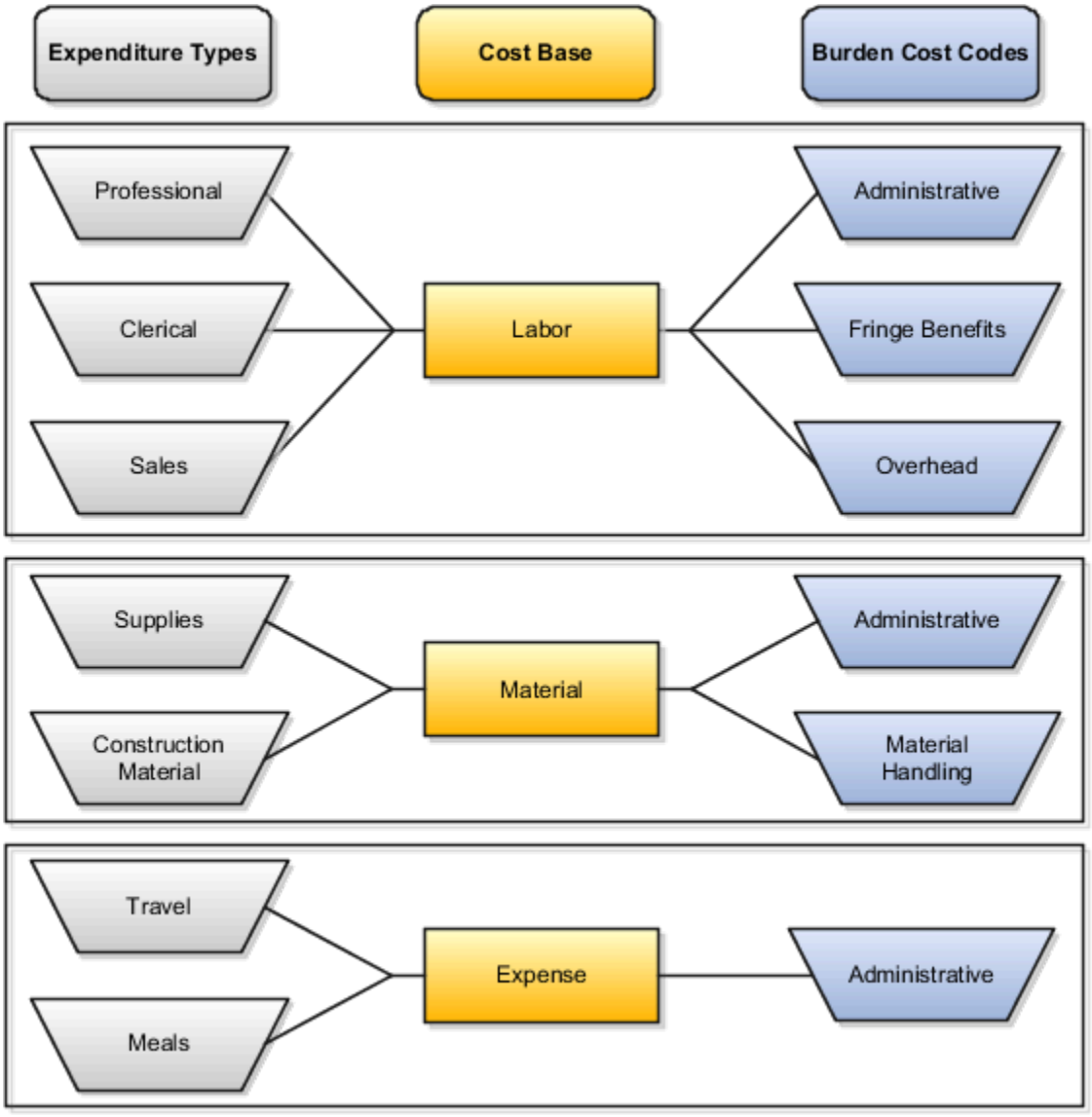
Example of Defining Burden Structures

The following scenario illustrates the relationship between expenditure types and burden cost codes in a burden structure. This relationship determines what burden costs Oracle Fusion Project Costing applies to specific raw costs.

> **Note:** Before you can define burden structures, you must define expenditure types, burden cost bases, and burden cost codes. Use the Define Burdening task list to manage burden cost bases, burden cost codes, and burden structures.

Burden Structure

The following graphic shows an example of the expenditure types and burden cost codes that are assigned to the Labor, Material, and Expense burden cost bases.



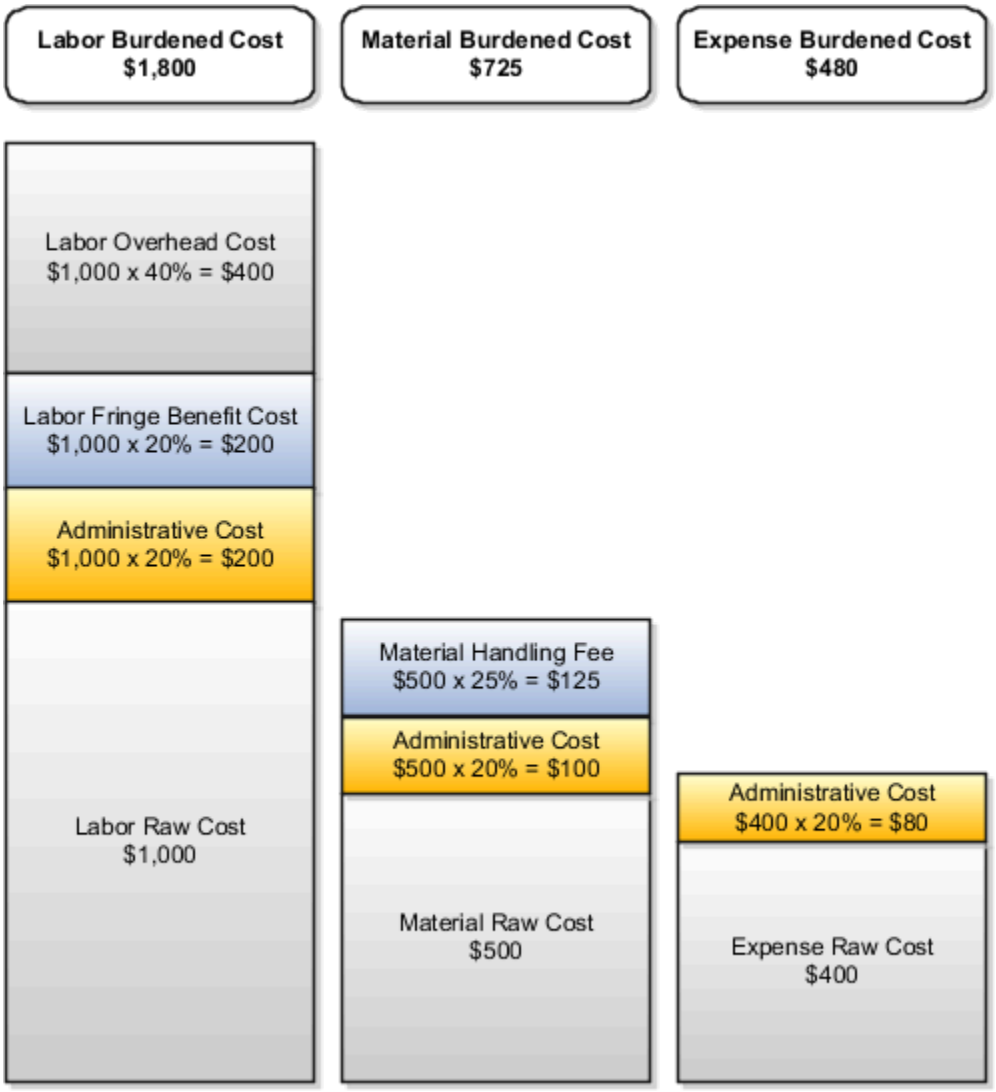
The following table is an alternative to the graphic to explain expenditure types and burden cost codes that are assigned to the Labor, Material, and Expense burden cost bases.

Cost Base	Expenditure Type	Burden Cost Codes
Labor	Professional, Clerical, Sales	Administrative, Fringe, Overhead
Material	Supplies, Construction Material	Administrative, Material Handling
Expense	Travel, Meals	Administrative

The following table shows an example of the multipliers that are used to calculate burden costs for raw costs in the Labor, Material, and Expense cost bases. This is an additive burden structure that applies each burden cost code to the raw costs in the appropriate cost base. Multipliers are defined on the burden schedule.

Burden Cost Base	Raw Cost Amount (USD)	Administrative Cost Code Multiplier	Labor Fringe Benefit Cost Code Multiplier	Labor Overhead Cost Code Multiplier	Material Handling Cost Code Multiplier
labor	1,000	0.20	0.20	0.40	0
material	500	0.20	0	0	0.25
expense	400	0.20	0	0	0

The following graphic shows an example of the resulting burdened costs for labor, material, and expenses.



- The following example shows the resulting burdened costs for labor.

  The following example shows the resulting burdened costs for labor.

  labor burdened cost = labor overhead cost + labor fringe benefit cost + administrative cost + labor raw cost

  labor overhead cost = $1000 * 0.40 = $400

  labor fringe benefit cost = $1000 * 0.20 = $200

  administrative cost = $1000 * 0.20 = $200

  labor raw cost = $1000

  labor burdened cost = $400 + $200 + $200 + $1000 = $1800

- The following example shows the resulting burdened costs for materials.

  materials burdened cost = material handling fee + administrative cost + material raw cost

  material handling fee = $500 * 0.25 = $125

  administrative cost = $500 * 0.20 = $100

  material raw cost = $500

  materials burdened cost = $125 + $100 + $500
- The following example shows the resulting burdened costs for expense.

  expense burden cost = administrative cost + expense raw cost

  administrative cost = $400 * 0.20 = $80

  expense raw cost = $400

  expense burden cost = $400 + $80

Related Topics

- How Burden Schedule Components Work Together

Examples for Additive and Precedence Burden Structures

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 cost in the appropriate cost base.

A precedence burden structure is cumulative and applies each cost code to the running total of the raw cost, burdened with all previous cost codes. You assign the multiplier on the burden schedule that Oracle Fusion Project Costing uses to perform the cost buildup for each detailed transaction.

Additive Burden Structure

Create an additive burden structure to apply each burden cost code assigned to a cost base using the same precedence when calculating burden costs. The following table describes an example of calculating burdened cost using an additive burden structure.

Cost Code	Precedence	Multiplier	Formula	Amount (USD)
Raw Cost	0	0	0	100.00
Overhead	1	0.50	0.50 * 100.00	50.00
Fringe Benefits	1	0.30	0.30 * 100.00	30.00
General and Administrative	1	0.20	0.20 * 100.00	20.00

Cost Code	Precedence	Multiplier	Formula	Amount (USD)
Burdened Cost	0	0	0	*200.00*

Precedence Burden Structure

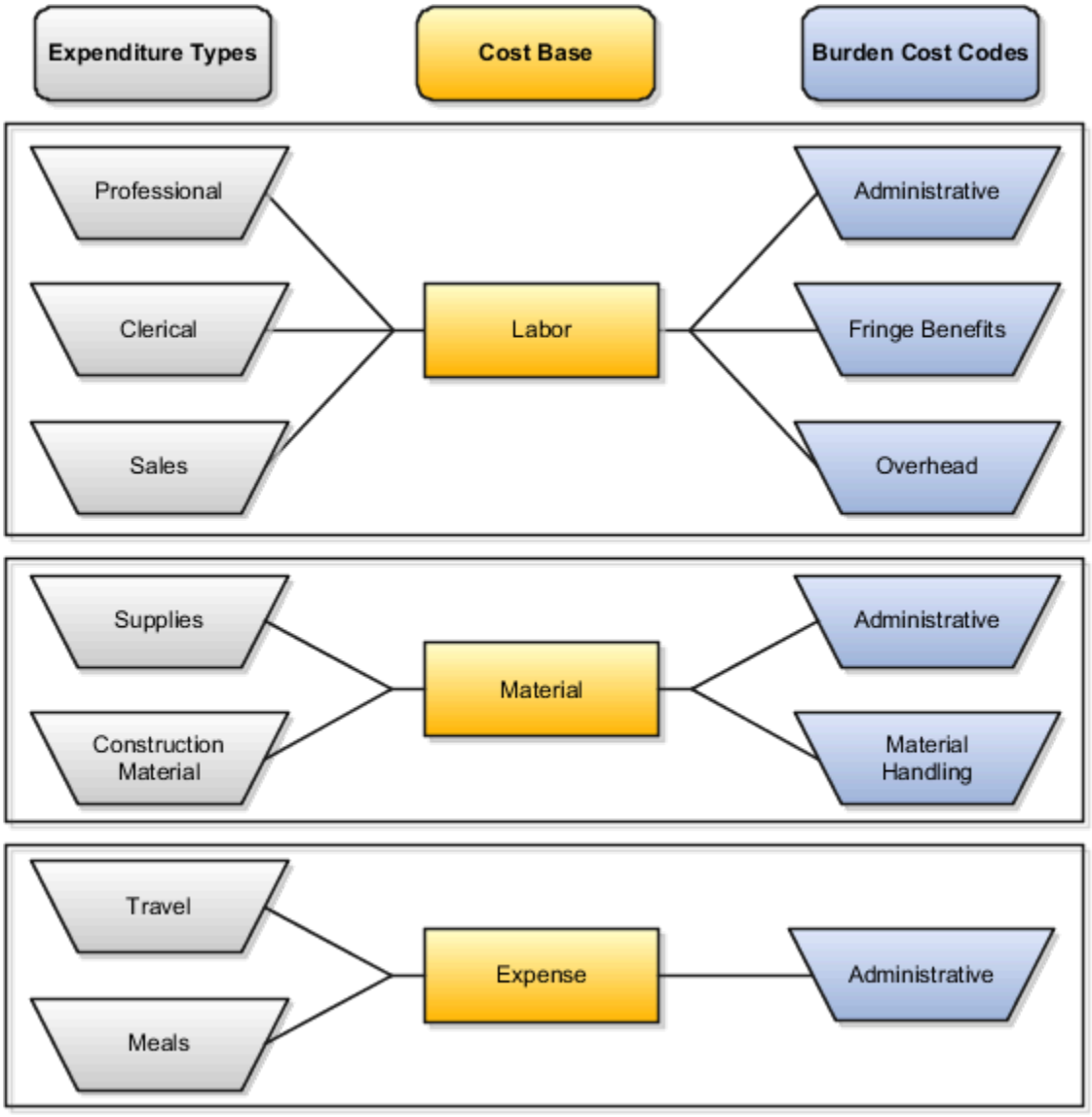
The following table lists an example which explains how each burden cost code assigned to a cost base is applied to raw costs.

Cost Code	Precedence	Multiplier	Formula	Amount (USD)
Raw Cost	0	0	0	100.00
Overhead	10	0.50	0.50 * 100.00	50.00
Fringe Benefits	20	0.30	0.30 * 150.00	45.00
General and Administrative	30	0.20	0.20 * 195.00	39.00
Burdened Cost	0	0	0	*234.00*

How Burden Structure Components Work Together

You define the project cost buildup using a burden structure. A burden structure determines how you group expenditure types into burden cost bases and establishes the method of applying burden costs to raw costs.

Before creating burden structures you must define expenditure types, cost bases, and burden cost codes, which are the main components of a burden structure.



The diagram illustrates a burden structure with the following cost bases.

- Labor
  - Includes the expenditure types Professional, Clerical, and Sales.
  - Is assigned the burden cost codes Administrative, Fringe Benefits, Overhead.
- Material
  - Includes the expenditure types Supplies and Construction Material.
  - Is assigned the burden cost codes Administrative and Material Handling.
- Expense
  - Includes the expenditure types Travel and Meals.
  - Is assigned the burden cost code Administrative.

Cost Bases

Cost bases are the groups of raw costs used for applying burden costs. You assign cost bases to burden structures, and then specify the types of raw costs, represented by expenditure types, that are included in the cost base, and the types of burden costs that are applied to the cost base.

Burden Cost Codes

Burden cost codes represent the distinct type of burden to apply to raw costs. For example, if labor costs receive both fringe benefits and overhead burden, then define a cost code for each type of burden. Assign an expenditure type to each burden cost code that Oracle Fusion Project Costing processes as separate, summarized expenditure items. The assigned expenditure type becomes the expenditure type for that type of burden cost.

Cost Base Types

Cost base types refer to the use of cost bases. Oracle Fusion Project Costing provides the following cost base types.

- Burden Cost: Assign to cost bases that are used to calculate burden costs.
- Other: Assign to cost bases that are used for other purposes than to calculate burden costs.

You can define additional cost base types to use for non-burden transactions.

Expenditure Types

Expenditure types classify raw costs and burden cost codes classify burden costs. The relationship between expenditure types and burden cost codes within each cost base determines what burden costs are applied to specific raw costs, and the order in which processing applies the burden costs.

In a burden structure, each expenditure type can belong to only one cost base with a cost base type of Burden Cost. This restriction ensures that Oracle Fusion Project Costing doesn't burden an expenditure type more than once. If you don't assign an expenditure type to a cost base, then burden costs aren't applied to the raw costs with those expenditure types. In other words, the burdened cost for these transactions is the same as the raw cost of the transaction.

FAQs for Burden Structures

Why is burden cost missing on a transaction?

Burden costs aren't applied to a transaction if either of these situations exist:

- The expenditure type associated with the transaction isn't assigned to a cost base.
- The project type for the project isn't enabled for burden calculation. In this situation, raw cost is equal to burdened cost.

Burden Schedules

How Burden Schedule Components Work Together

Burden schedules establish the multipliers used to calculate the burdened cost, revenue, or bill amount of each expenditure item charged to a project. The burden schedule determines which transactions the application burdens, based on burden cost bases defined in the burden structure.

The project type determines which projects are burdened and contains the default burden schedule. A burden schedule type can be firm or provisional. You can override rates by using a schedule of multipliers negotiated for a specific project or task.

Burden Schedule Types

Use a firm burden schedule if you don't expect the multipliers to change. Firm burden schedules can have multiple versions, but never more than one version for a date range.

Use a provisional burden schedule if you based the multipliers on estimates, such as a yearly forecast budget. Provisional schedules can have provisional and actual versions active for the same date range. When the actual multipliers are available, replace the provisional version with the actual version. When you build the actual burden schedule, the application automatically reprocesses the impacted expenditure items to adjust the burden cost amounts.

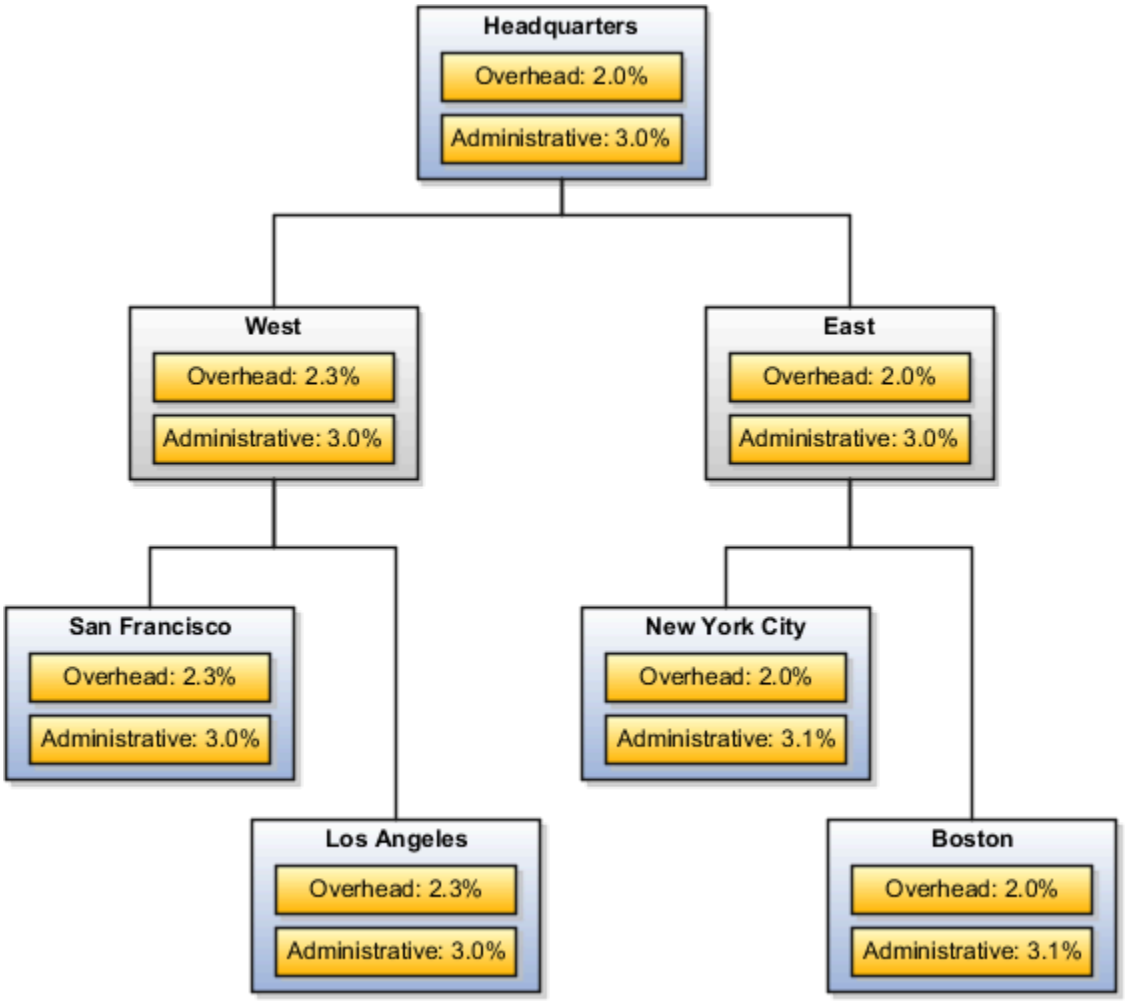
Multipliers

The multiplier specifies the rate by which to multiply the raw cost amount to obtain the burden cost amount. If you don't use organization hierarchies, you can assign a multiplier to a combination of burden cost code and either a unique organization or all organizations. If you use organization hierarchies, you can assign a multiplier to a combination of burden cost code and either a unique organization or a parent organization.

You can use the organization hierarchy to cascade rates down to lower-level organizations without explicitly defined multipliers. If the Project Financial Management applications find a level in the hierarchy without a multiplier, they use the multipliers of the parent organization. Therefore, an organization multiplier schedule hierarchy is used to identify the exceptions. You only define the multipliers for an organization if you're overriding the multipliers of the parent organization.

The following diagram shows an example of organizations using multipliers. The parent organization, Headquarters, has two defined multipliers: Overhead with a multiplier of 2.0, and Administrative with a multiplier of 3.0.

- The application doesn't find any multipliers when it processes transactions for the East organization. Therefore, the application uses the multipliers from the parent organization, Headquarters.
- The Boston and New York City organizations are assigned an Administrative multiplier of 3.1, and no Overhead multiplier. Therefore, the application uses the Administrative multiplier of 3.1, and the Overhead multiplier from the Headquarters organization, when processing transactions for the Boston and New York City organizations.
- The West organization is assigned an Overhead multiplier of 2.3, and no Administrative multiplier. Therefore, the application uses the Overhead multiplier of 2.3, and the Administrative multiplier from the Headquarters organization, when processing transactions for the West organization.
- No multipliers are assigned to the San Francisco and Los Angeles organizations. Therefore, the application uses the Overhead multiplier from the West organization, and the Administrative multiplier from the Headquarters organization, when processing transactions for the San Francisco and Los Angeles organizations.



Burden Schedule Versions

Burden schedule versions define the date range within which multipliers are effective. You build the burden schedule to make the burden schedule versions active and available for use.

Note: Submit the Build New Organization Burden Multipliers process if you add an organization to the hierarchy after you built the schedule. A burden schedule version must be active to add multipliers for a new organization.

Related Topics

- Considerations when Editing Burden Schedule Multipliers

Burden Multipliers for New Organizations: How They Are Added to Burden Schedules

The Build New Organization Burden Multipliers process adds burden multipliers to burden schedules for an organization when you add a new organization to your organization hierarchy.

If you don't add the organization to a specific burden schedule version, this process builds multipliers for the organization in all burden schedule versions. It uses the multipliers of the parent organization as defined in the organization hierarchy. A burden schedule version must be active to add multipliers for a new organization.

Run this process:

- After you create the organization and before you charge transactions using this organization as the expenditure organization.
- For the parent organization before you run it for the child organization.

If the new organization requires multipliers that are different than the multipliers assigned to the parent organization, you can manually add multipliers for each burden cost code on the burden schedule versions, and then rebuild the versions.

Settings That Affect Burden Multipliers for New Organizations

The process parameter is the new organization for which you want to build multipliers for existing burden schedule versions. Typically you run this process during implementation as part of the Burden Definition setup task list.

Process results are summarized in the Build New Organization Burden Multipliers Execution Report that displays the impacted burden schedules and burden schedule versions.

Related Topics

- How Burden Schedule Components Work Together
- Considerations when Editing Burden Schedule Multipliers

Recalculate Burden Costs

When you perform certain actions on a project that's enabled for burdening, you need to recalculate the existing burden costs.

Let's say that you change the multiplier on an organization's burden schedule version. All of the existing transactions that are associated with that organization need to be recalculated.

The conditions that require burden cost recalculation are:

- You updated a previously built burden schedule.
- You built an actual burden schedule version to replace a provisional burden schedule version.
- You modified the version dates such that the transactions for which burden is calculated using existing version no longer fall within the new version dates.
- You have previous unprocessed adjustments on transactions.
- An error occurs during the process.

Recalculate the costs for a burden schedule version.

1. In the Costs work area, click the Manage Burden Schedule task.
2. On the Manage Burden Schedules page, select the burden schedule.
3. Click the Recalculate Burden Costs button. The Recalculate Burden Costs process initiates the Import Costs process to create expenditure items and cost distribution lines for the eligible transaction. In case of separate line burdening, you must also run the Generate Burden Costs process after recalculating the burden costs.

4. Review the Recalculate Burden Cost output report and the Import Costs output report. If any transactions were excluded from the recalculation, fix the conditions and recalculate again.

Related Topics

- Considerations when Editing Burden Schedule Multipliers

Burden Cost Calculations Test

Test burden cost calculations to view a breakdown of the total burdened cost for a specific project transaction and to verify your burden structure and burden schedule implementation.

The test emulates an actual burden cost transaction for a set of criteria consisting of the project, task, burden schedule, expenditure type, expenditure organization, raw cost, quantity, and transaction date.

The application uses the burden schedule that you specify as burden cost criteria to calculate burden amounts. If you specify a project as burden cost criteria, and you don't specify a task or burden schedule, then the application uses the burden schedule on the project. If you specify a project and task, and you don't specify a burden schedule, then the application uses the burden schedule on the task.

Test burden cost calculations to:

- Verify that the amounts for each burden cost code and for the total burdened cost are calculated correctly according to the specified criteria.
- Confirm that the correct schedule is used for the given project and task.
- Confirm that the desired burden cost codes and rates are used for the organization and expenditure type.

FAQs for Burden Schedules

How can I prepare for creating burden schedules?

Before you create burden schedules, you must define burden structures and optionally define organization hierarchy.

What's a burden schedule?

Establishes the multipliers that are applied to the raw cost of each expenditure item to calculate the burdened cost, revenue, or bill amount charged to a project.

Assign burden schedules to project types, projects, or tasks. The project type provides the default burden schedule for a project. You can override the default burden schedule for each project by using a schedule of multipliers negotiated for the project or task.

In planning, when using planning rates, you assign a burden schedule in the project or financial planning options. The set of resources and rates are global and have no project context from which to derive a burden schedule.

What's burden costing?

A method of applying burden costs to raw costs to track the burdened cost of your projects.

What's the difference between a firm burden schedule and a provisional burden schedule?

Firm burden schedules are typically used for internal costing or commercial billing schedules. You can have multiple versions, but only one version for an effective date range. Use firm burden schedules if you expect no changes in your burden multipliers.

Provisional multipliers are typically estimates based on the annual forecast budget. When you determine the actual multipliers to apply to raw costs, then you replace the provisional multipliers with the actual multipliers. Use provisional multipliers if you don't know burden multipliers when calculating total burdened costs.

The adjustments are processed from provisional to actual changes for costing, revenue, and billing transactions.

Why can't I select a hierarchy tree version for the default organization hierarchy while creating burden schedules?

The organization tree version isn't in the Active status. You must change the status of the organization tree version to Active for it to display in the Manage Burden Schedules page.

What happens if I recalculate burden costs?

The outcome of the Recalculate Burden Costs process depends on whether your project uses same line or separate line burdening. Recalculation uses the latest burden schedule.

In case of same line burdening, the adjusted expenditure item creates two distribution lines.

- A reversed cost distribution line for the original burden schedule.
- A new cost distribution line for the updated burden schedule.

In case of separate line burdening, after the Recalculate Burden Costs process finishes, run the Generate Burden Costs process to regenerate the burden costs. Any transactions that are being processed for the first time aren't included because the burden on the expenditure item was already reserved when you imported the cost.

If the transactions are eligible for budgetary control, then the latest cost distribution lines for these transactions are used.

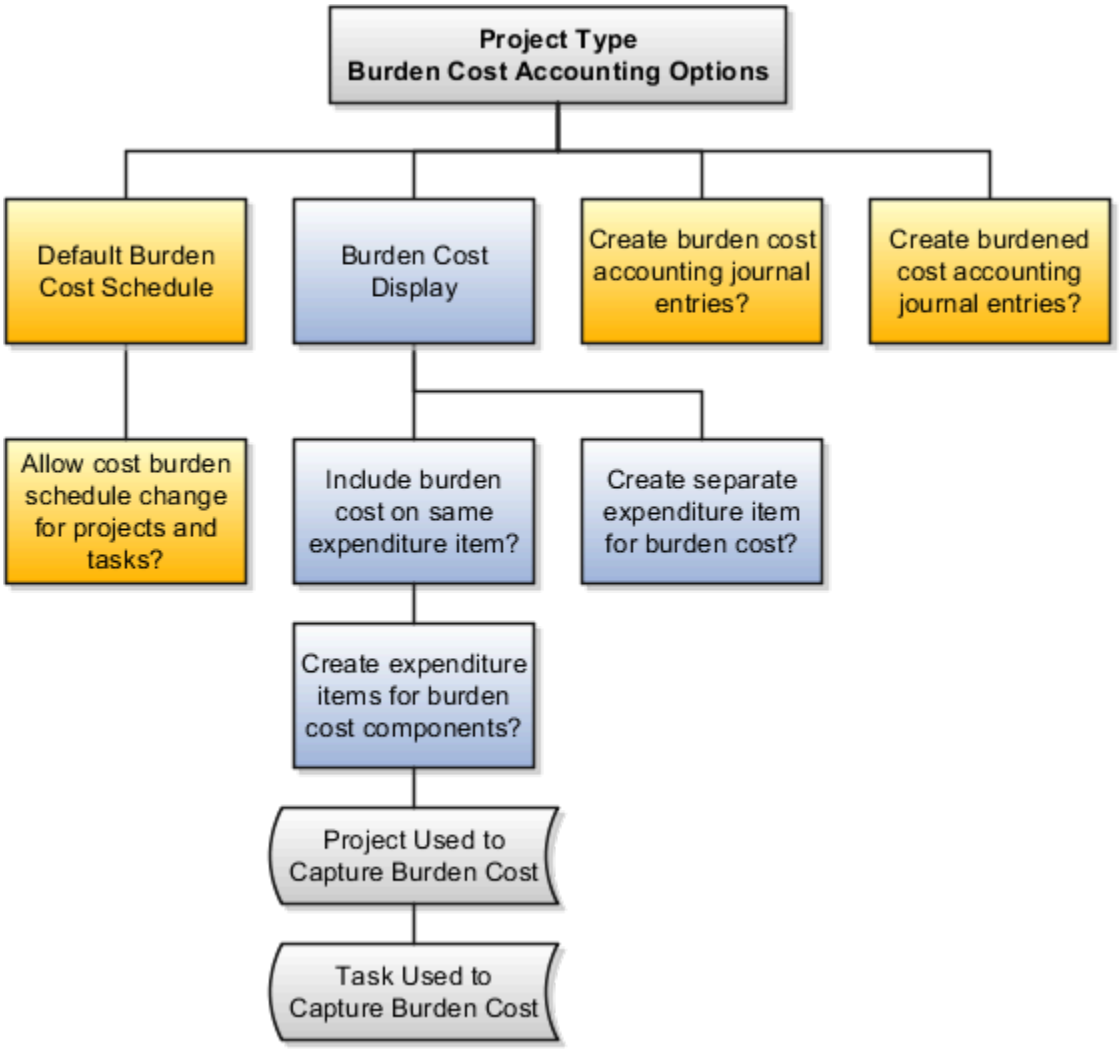
10 Project Foundation Configuration: Project Types

Considerations for Burden Cost Options for Project Types

Burdening is a method of applying one or more burden cost components to the raw cost amount of each individual transaction to calculate burden cost amounts. Use project types to control how burden transactions are created and accounted.

If you enable burdening for a project type, you can choose to account for the individual burden cost components or the total burdened cost amount.

The following graphic illustrates the burden cost accounting options for project types.



You specify the following options when setting up burdening options for project types.

- Default Cost Burden Schedule
- Allow Cost Burden Schedule Change for Projects and Tasks
- Include Burden Cost on Same Expenditure Item
    - Create Expenditure Items for Burden Cost Components
- Create Separate Expenditure Item for Burden Cost
- Create Burden Cost Accounting Journal Entries
- Create Burdened Cost Accounting Journal Entries

Default Cost Burden Schedule

If you enable burdening for the project type, you must select the burden schedule to use as the default cost burden schedule for projects that are defined with this project type.

Allow Cost Burden Schedule Change for Projects and Tasks

Enable this option to allow a change of the default cost burden schedule when entering and maintaining projects and tasks. Don't enable this option if you want all projects of a project type to use the same schedule for internal costing.

Include Burden Cost on Same Expenditure Item

Enable this option to include the burden cost amount in the same expenditure item. You can store the total burdened cost amount as a value with the raw cost on each expenditure item. Oracle Fusion Project Costing displays the raw and burdened costs of the expenditure items on windows and reports.

If you include burden cost amounts on the same expenditure item, but want to see the burden cost details, enable the option to create expenditure items for each burden cost amount on an indirect project and task.

Create Separate Expenditure Item for Burden Cost

Enable this option to account for burden cost amounts as separate expenditure items on the same project and task as the raw expenditures. The expenditure items storing the burden cost components are identified with a different expenditure type that's classified by the expenditure type class Burden Transaction. Oracle Fusion Project Costing summarizes the cost distributions to create burden transactions for each applicable burden cost code. The most important summarization attributes are project, lowest task, expenditure organization, expenditure classification, supplier, project accounting period, and burden cost code.

Create Burden Cost Accounting Journal Entries

Indicate whether to create an entry for the burden cost amount.

If burdened costs are calculated for reporting purposes only, and you don't want to interface burdened costs to the general ledger, you can disable the creation of accounting journal entries. If you select this option, only the burden cost, which is the difference between the burdened cost and raw cost, is interfaced to general ledger.

Create Burdened Cost Accounting Journal Entries

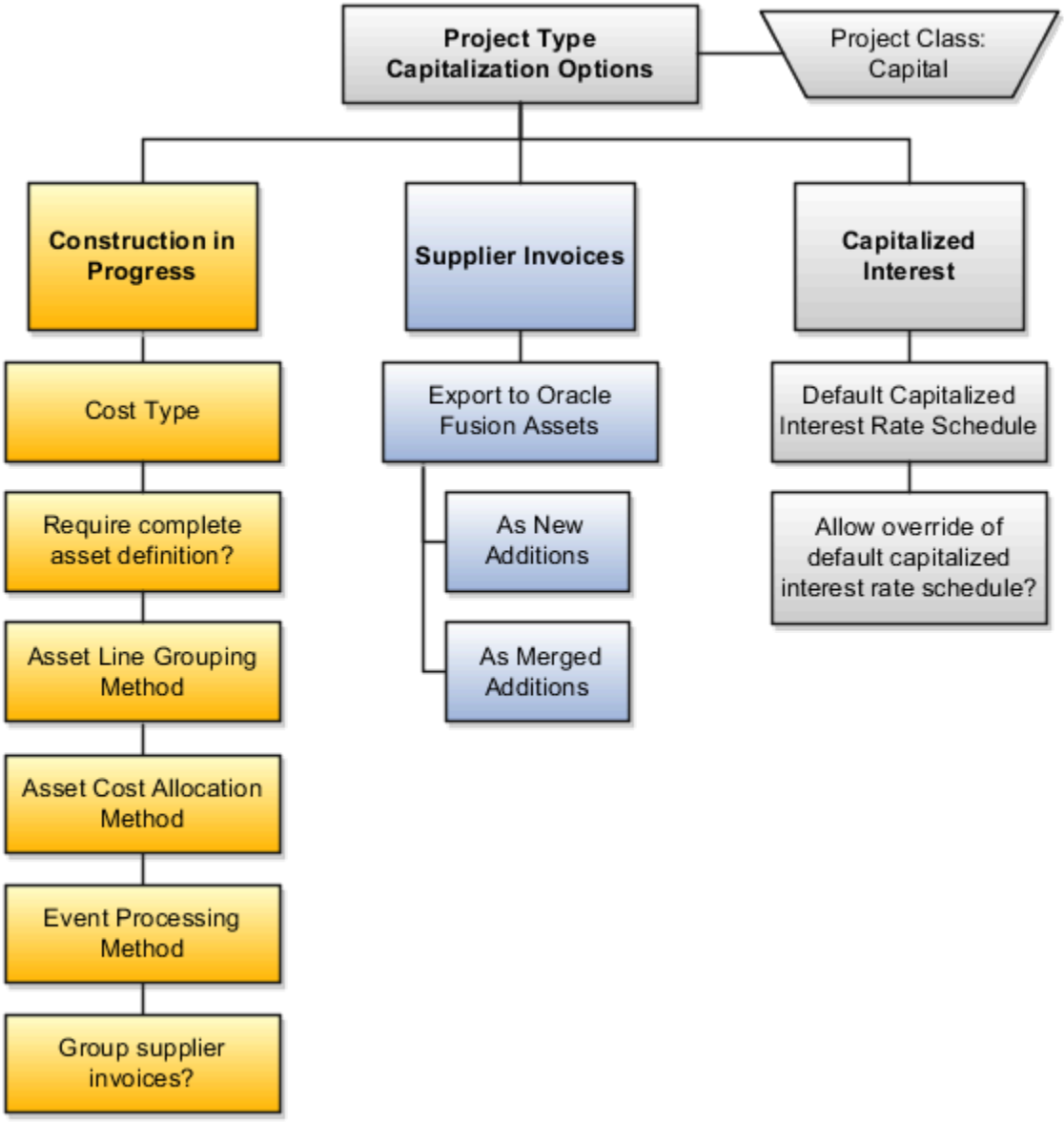
Indicate whether to account for the total burdened cost amount of the items. You typically use this option to track the total burdened cost amount in a cost asset or cost work-in-progress account.

The burdened cost is the sum of raw and burden costs. Therefore, selecting this option may result in accounting for raw cost twice. For example, assume that the raw cost of an item is 100 USD, the burden cost is 50 USD, and the burdened cost is 150 USD. When the application creates a journal entry for 150 USD, it accounts for the 100 USD that was already accounted for as raw cost, plus the 50 USD burden cost.

Capitalization Options for Project Types

You can assign assets to a project by associating it with a project type that's enabled for capitalization. Enable capitalization for a project type using the Manage Project Types task.

The following graphic illustrates the capitalization options for project types.



Specify the following information when setting up capitalization options for project types.

- Construction in Progress (CIP) Options
- Supplier Invoices Export Options
- Capitalized Interest Options

Construction in Progress Options

You specify the following Construction in Progress options when setting up capitalization options for project types.

Cost Type

Indicate whether to capitalize costs at the burdened or raw cost amount for projects associated with this project type.

Complete Asset Definition

Enable this option to require a complete asset definition in Oracle Fusion Project Portfolio Management before sending costs to Oracle Fusion Assets. If you select this option, you don't need to enter information for the imported asset lines in Oracle Fusion Assets. The Transfer Assets to Oracle Fusion Assets process places asset lines with complete definitions directly into the post queue in Oracle Fusion Assets.

Asset Line Grouping Method

Specify one of the following methods to summarize asset lines.

- **All**, which is the highest level of summarization
- **Expenditure Category**
- **Expenditure Category Nonlabor Resource**
- **Expenditure Type**
- **Expenditure Type Nonlabor Resource**
- **Expenditure Organization**
- **Expenditure Item**

Asset Cost Allocation Method

Select one of the following predefined allocation methods to automatically distribute indirect and common costs across multiple assets, or select no allocation method.

- **Actual Units**
- **Current Cost**
- **Estimated Cost**
- **Standard Unit Cost**
- **Spread Evenly**

Event Processing Method

Specify a capital event processing method to control how assets and costs are grouped over time. You can select either periodic or manual events, or no events.

Supplier Invoices Options

You specify the following Supplier Invoices options when setting up capitalization options for project types.

Grouping Supplier Invoices

You can use the grouping options to do one of the following:

- Enable this option to consolidate the expenditure items on a supplier invoice into one asset line according to the asset line grouping method.

- Disable this option to send the lines to Oracle Assets based on the supplier invoice export option

Exporting Supplier Invoices

If you choose not to group supplier invoices, then select one of the following supplier invoice export options.

- **As New Additions**: Sends each expenditure item on a supplier invoice line to Oracle Fusion Assets as a separate addition line with a status of New.
- **As Merged Additions**: Sends each supplier invoice line to Oracle Fusion Assets as a separate addition line with the status of Merged.

Previously capitalized assets are transferred as new additions to Oracle Fusion Assets.

- If the asset was assigned an asset number in Project Costing, then you must remove or change the asset number in Oracle Fusion Assets before you can post the new addition.
- After the addition lines are sent to Oracle Fusion Assets, you can split, merge, or split the lines manually in Oracle Fusion Assets.

Capitalized Interest Options

Use this field to specify a default interest rate schedule for capitalized interest.

You can select the **Allow Override** option to allow an override of the default capitalized interest rate schedule for individual projects.

Example of Project Types Association with Class Categories

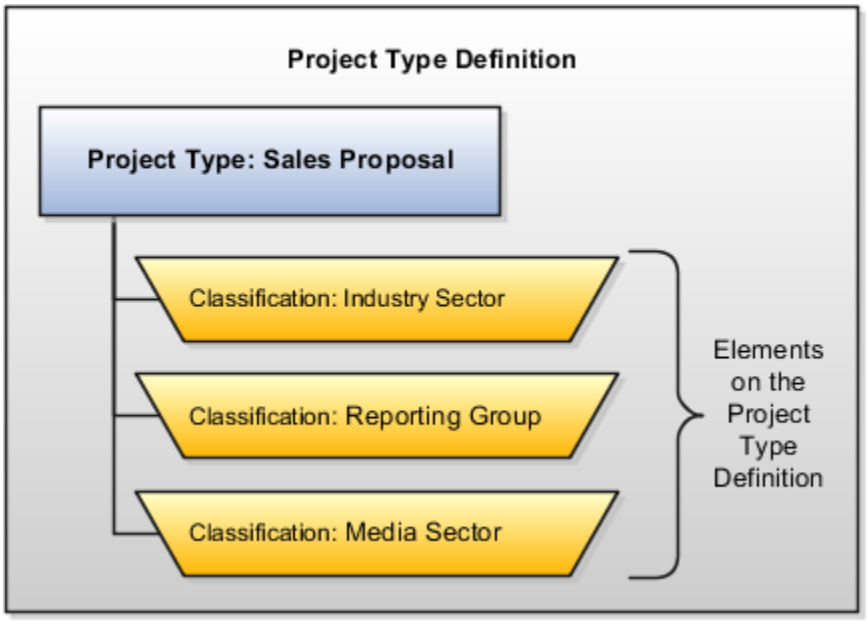
Project classifications group your projects according to categories and codes that you define. When you associate project classifications with project types, the classification is available for selection on projects with that project type.

Use any of the following methods to associate class categories with project types:

- Add a classification to the project type definition
- Add a project type to the class category definition
- Enable the **Assign to all Project Types** option on the class category definition

Add Classification to Project Type Definition

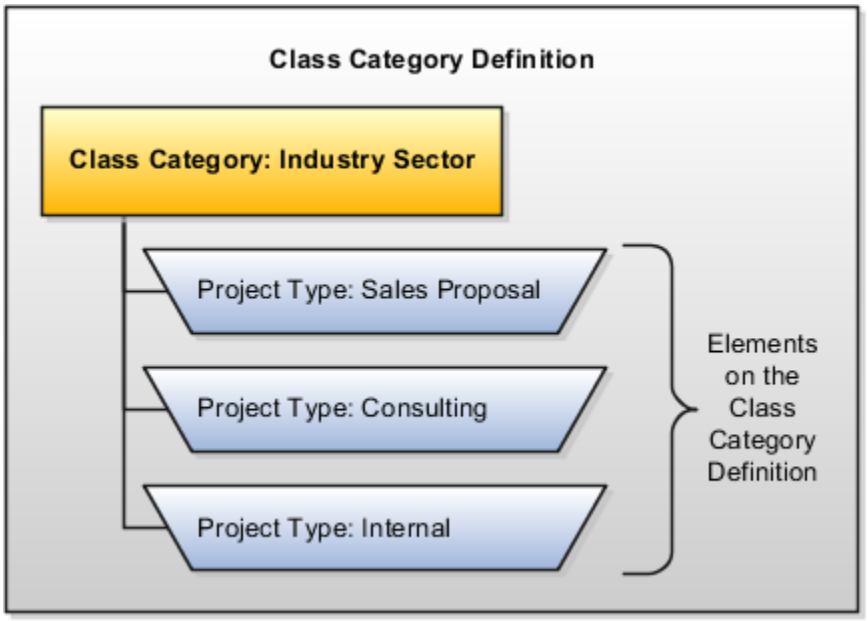
The following graphic shows an example of three classifications associated with a project type definition. In this example, the Industry Sector, Reporting Group, and Media Sector classifications are available for selection on projects with the Sales Proposal project type.



For each classification that you associate with the project type, you can enable the **Assign to All Projects** option to automatically add the classification to the project definition for all new projects with the project type. When this option is enabled, all projects with this project type must be assigned a class code for the class category.

Add Project Type to Class Category Definition

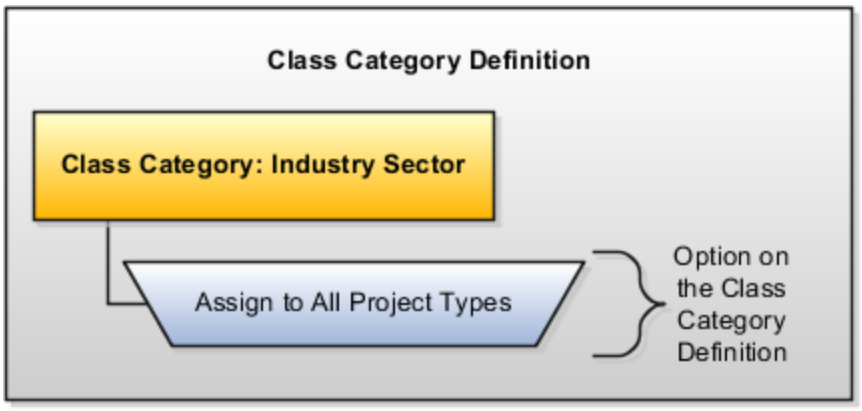
The following graphic shows an example of three project types associated with a class category definition. In this example, the Industry Sector classification is available for selection when you create projects with the Sales Proposal, Consulting, or Internal project types.



For each project type that you associate with the class category, you can enable the **Assign to All Projects** option to automatically add the class category to the project definition for all new projects with any of these project types. When this option is enabled, all projects with this project type must be assigned a class code for the class category.

Assign to All Project Types

The following graphic shows an example of a class category definition with the **Assign to All Project Types** option enabled. In this example, a code for the Industry Sector class category is required for all projects, regardless of the project type.



FAQs for Project Types

Can I update the capitalization options for a project type?

Project application administrators can update the capitalization options for a project type after projects or templates are created using that project type.

You can update the asset line grouping method for a project type using the Manage Project Types setup task at any point of time.

If you update the value for the Asset Line Grouping Method either to or from Expenditure Item then you have certain restriction on the options that you can select for the supplier invoices. You can modify the capitalization options based on the following criteria.

- Asset Line Grouping Method option isn't set to Expenditure item in either existing or updated configuration:
    - If Group Supplier Invoices option is currently enabled then you can:
        - Disable the grouping method for supplier invoices and Set export supplier invoices option as Merged additions but not as New additions.
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as New Additions then you can do one of the following:
        - Enable the grouping method for supplier invoices only if no project belonging to the project type exists with transferred asset lines.
        - Set the export supplier invoices to Merged additions only if no project belonging to the project type exists with transferred asset lines.
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as Merged Additions then you can do one of the following:
        - Set the export supplier invoices to New additions only if no project belonging to the project type exists with transferred asset lines.
        - Enable the grouping method for supplier invoices.
- Asset Line Grouping Method option is set to Expenditure item in existing configuration and changed to a different value in the updated configuration:
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as New Additions then you can do one of the following:
        - Enable the grouping method for supplier invoices only if no project belonging to the project type exists with transferred asset lines.
        - Set the export supplier invoices to Merged additions only if no project belonging to the project type exists with transferred asset lines.
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as Merged Additions then you can do one of the following:
        - Set the export supplier invoices to New additions only if no project belonging to the project type exists with transferred asset lines.
        - Enable the grouping method for supplier invoices.
- Asset Line Grouping Method option isn't set to Expenditure item in existing configuration and changed to Expenditure item in the updated configuration.
    - If Group Supplier Invoices option is currently enabled then you can do one of the following:
        - Disable the grouping method for supplier invoices and set export supplier invoices as Merged additions.
        - Disable the grouping method for supplier invoices and set export supplier invoices as New additions if no project belonging to the project type exists with transferred asset lines.
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as New Additions then you can:

        - Set the export supplier invoices to Merged additions only if no project belonging to the project type exists with transferred asset lines.
    - If Group Supplier Invoices option is currently disabled and Export Supplier Invoices option is set as Merged Additions then you can:
        - Set the export supplier invoices to New additions only if no project belonging to the project type exists with transferred asset lines.

11 Project Foundation Configuration: Project Numbering

Considerations for Setting Up Project Numbering

You have more flexibility to set up project numbering using the Configure Project Numbering task in the Setup and Maintenance work area.

You can either specify a default configuration that determines project numbering for all your projects. Or, have it differently for any one of the predefined objects: project units, project types, or business units.

Look at these considerations while configuring the project numbering.

- You can either have manual or automatic numbering for your projects. By default, it's manual method.
- If you choose manual method then you must also select if the project number should be numeric or alphanumeric. You can't enter a duplicate project number.
- If you choose automatic method then you must define a next number to start your project numbering and optionally add a prefix for the numbering.
- If the next number conflicts with another project unit, project type, or business unit at setup level then the project isn't created.

> **Note:** You also have an option to disable the **Flexibly Set Up Automatic Numbering for Projects** feature in which case the **Configure Project Numbering** task will no longer be available in the Setup and Maintenance work area. The project numbering setup appears back in the **Manage Project Unit Options** task.

By default, project numbering is manual. If your project numbering is set to automatic, migrating older projects while preserving their original numbers will cause errors. To avoid this, change the project numbering setting to manual before starting the migration. After the migration is successfully completed, you can change the setting back to automatic to ensure any newly created projects are numbered automatically.

To change the project numbering to manual:

1. In the Setup and Maintenance work area, go to the **Configure Project Numbering** task.
2. In the Configure Project Numbering page, select a project unit.
3. From the **Method** drop-down list, select **Manual**.
4. From the **Type** drop-down list, select the type of numbering.
5. Click **Save and Close**.

Can I change the project number for an existing project?

Yes, but you can't edit project numbers for the following scenarios:

- Project has existing billing events or cost transactions.
- Project has a budget enabled for budgetary control.
- Project number originates from an external application.
- You have enabled automatic project numbering using the Manage Project Number task in the Setup and Maintenance work area.
- Action controls exist that disallow edits to project number.

12 Project Foundation Configuration: Action Controls

Action Controls

Use the Manage Action Controls setup task to specify the actions you don't want performed on projects that are enabled for financial management and imported from external applications.

After you specify action controls for a source, you can't perform the configured actions after the date from which the action control is effective. The action controls aren't applicable for execution only projects.

For your source application to appear in the Manage Action Controls page, you must define it as a lookup under the lookup type **PJF_PM_PRODUCT_CODE** using the Manage Standard Lookups setup task.

Available Action Controls

Here's the list of actions you can disable for projects imported from external applications.

- Add Financial Task
- Delete Financial Task
- Update Project Dates
- Update Project Description
- Update Project Name
- Update Project Number
- Update Project Organization
- Update Project Status
- Update Financial Task Dates
- Update Financial Task Description
- Update Financial Task Name
- Update Financial Task Number
- Update Financial Task Organization

Example

For MSP integration, suppose you want scheduling and deletion of projects only in Microsoft Project. To enforce this, select Microsoft Project as the source application and select **Update Project Dates**, **Update Financial Task Dates**, and **Delete Financial Task** actions to disable them.

13 Project Foundation Configuration: Distribute and Install Desktop Integrator Client

How Project Costs are Imported

Collect and import all types of project costs from Oracle Fusion and third-party applications. During this process you can validate transactions to reduce corrections and rework. Before you import the transactions, you can review the exceptions and correct the errors.

Settings That Affect Transactions Import

Setup options in the transaction document and document entry specify how cost transactions are imported and processed.

How Transactions Are Imported

You create, validate, and transfer the transactions to the Oracle Fusion Project Costing interface as specified in the following table.

Transactions Type	Creating Transactions	Validating Transactions	Importing Transactions
Oracle Fusion Project Costing • Uncosted labor transactions • Uncosted nonlabor transactions	Initially only in Excel templates. You can later edit or add transactions in the Manage Unreleased Costs page.	Validation is compulsory and is performed automatically during transaction entry.	Click the **Export** button in the Excel spreadsheet to export, and optionally, process transactions.
Third-Party Application • Uncosted labor transactions • Uncosted nonlabor transactions • Costed or accounted labor or nonlabor transactions	Web services, ADFdi Excel spreadsheets, or Oracle Cloud templates. You can also create transactions in the Manage Unprocessed Costs page.	If you're using the ADFdi Excel, optionally validate transactions during export. Validation is optional when you enter or export transactions but is always performed when you run the **Import Costs** process.	Methods to import: • For ADFdi Excel, click the **Export** button on the Excel spreadsheet to export, and optionally, process transactions. • Use web services to transfer transactions to the Oracle Fusion Project Costing interface. • For Oracle Cloud, use the Load Interface File for Import process.
Other Oracle Fusion Applications	Source applications	Validation is compulsory. The Import Costs process revalidates the cost transactions that you import if the **Revalidate during import** option is enabled at the transaction source	Use the **Import Costs** process. If you are using Labor Schedules to distribute payroll costs, see *Import Payroll Costs*.

Transactions Type	Creating Transactions	Validating Transactions	Importing Transactions
		document level. This option is available for the following transaction sources: • Oracle Fusion Payables • Oracle Fusion Cost Management • Oracle Fusion Time and Labor	

All transactions are validated but at different points, for example, transaction entry, transfer, or processing. If you're exporting transactions from ADFdi Excel spreadsheets, you can release the transactions directly from the spreadsheet by selecting the **Process Costs** option. Costs are submitted for the **Import Costs** process avoiding the need to do it from the application.

The **Process Costs** option isn't available in the Excel template when the transaction source document requires expenditure batch approval. You can review expenditure batches in the Manage Expenditure Batches page and submit them for processing. If the transaction source document doesn't require expenditure batch approval, you can choose to process costs or only validate them.

After you import the transactions, the application tracks transactions with errors including the details for the cause of the error and the action to be taken to fix the error. The successful transactions are ready for cost processing.

Related Topics

- Transaction Document Import and Accounting Options
- How Source, Document, and Document Entry Components Work Together

Document and Document Entry Edit Options of Predefined and Third-Party Sources

You can define the transaction document and document entry options for transactions that originate from predefined sources and third-party application sources.

However, there is a limitation in editing these options. The options that you can edit for each source depend on whether the document entry is predefined for use with Oracle Fusion Applications or defined during implementation for use with third-party application sources.

Document Edit Options

The following table provides a list of document options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Options	Predefined Sources	Third-Party Application Sources
Import raw cost amounts	Not editable	Not editable

Document Options	Predefined Sources	Third-Party Application Sources
Import burdened cost amounts	Not editable	Not editable
Allow duplicate reference	Not editable	Not editable
Allow override of person organization	Not editable	Not editable
Reconcile with source	Not editable	Editable
Archive after import	Editable	Editable
Revalidate during import	Editable	Not editable
Accounted in source application	Not editable	Not editable
Create raw cost accounting journal entries	Not editable	Not editable
Create adjustment accounting journal entries	Editable	Editable

Document Entry Edit Options

The following table provides a list of document entry options that you can edit for predefined and third-party application source transactions. For third-party application source transactions, the table specifies whether the options are editable after you have created and imported transactions for the source.

Document Entry Options	Predefined Sources	Third-Party Application Sources
Expenditure type class	Not editable	Not editable
Allow adjustments	Editable	Editable
Allow reversals	Not editable	Editable
Allow modifications to unprocessed transactions	Editable for Oracle Fusion Projects Not editable for other predefined sources	Editable
Process cross-charge transactions	Editable	Editable
Create related items	Editable	Editable

Related Topics

- How Source, Document, and Document Entry Components Work Together
- Transaction Document Import and Accounting Options

FAQs for Distribute and Install Desktop Integrator Client

Can I change the source and document for transactions after exporting them to Oracle Fusion Project Costing?

No. You can't change the source, document, or document entry after exporting a transaction to Project Costing.

What's the difference between Export to Excel and desktop integration for Excel?

You use the Export to Excel button or menu option to download data from your table as a Microsoft Excel file. You can then use this file to view or analyze your data.

You use desktop integration for Excel to create or edit records in Excel workbooks, and then upload them back into the application. This comes in handy when you have to work offline or make mass updates. In most cases, you download the desktop integrated workbook from a link in a panel tab or your table.

Related Topics

- Guidelines for Using Desktop Integrated Excel Workbooks

Why can't I find the business unit in the downloaded desktop Excel integration spreadsheets?

If your access is revised, then you have to download the desktop Excel integration spreadsheets again.

For example, if you initially have access to Vision Operations business unit, then you view only this business unit listed in the Excel spreadsheets. If new business units are assigned or removed, you must download the templates again to view the business units according to your access in the Excel spreadsheets.

14 Project Control Configuration

Overview of Oracle Project Control Configuration

The Oracle Project Control functional area lets you manage the financial and budgeting aspects of projects.

Using Project Control, you can configure your enterprise on how you monitor project execution, budget, forecast, and track progress. You can configure period profiles, spread curves, project plan types, and financial plan types and use Business Process Engineering Language (BPEL) workflows to manage budget and forecast approvals.

The preliminary step is to use the Setup and Maintenance work area to select the features and settings that you want to implement for your enterprise.

This table describes the setup tasks for Project Control.

Task Name	Description
Manage Period Profiles	Specify how time periods are grouped and displayed when editing budgets, forecasts, and project plan costs.
Manage Spread Curves	Specify how quantity, cost, and revenue amounts are automatically distributed across a range of accounting or project accounting periods.
Manage Resource Classes: Spread Curves	Review and update resource classes to specify the spread curve to be used.
Manage Financial Plan Types	Specify options used to control planning scenarios for budget and forecast versions.
Manage Project Plan Types	Specify default planning options that cascade down to the template and project levels.

15 Project Control Configuration: Period Profiles

Period Profiles

Period profiles specify how periods are grouped and displayed when you edit financial or project plans that allow entry of amounts based on a calendar.

> **Note:** Period profiles don't affect the periods for which you enter amounts. That is determined by the start and end dates of the financial or project plan line.

You select a period profile when specifying plan settings for a financial plan type or a project plan type. With the appropriate access, you can override this selection when creating budget or forecast versions for a project. Similarly, you can override the period profile associated with the project plan type at the project template or project level.

Period profiles are based on groups of periods from either an accounting calendar or a project accounting calendar. You can define an unlimited number of period groupings of varying duration in a period profile.

Predefined Period Profiles

The Project Financial Management applications contain two predefined period profiles:

- One based on the accounting calendar
- One based on the project accounting calendar

Both have 52 single period groupings. That is, each period grouping contains one period of a week's duration.

Designate Current Period for a Period Profile

You designate one period grouping in a period profile as the current period. The current period provides a reference point for grouping historical, current, and future period amounts.

When reviewing financial or project plans, the current planning period determines the period grouping with the current period. Periods before and after the current period are grouped using the period groupings. Amounts for periods outside the range specified by the period profile are summed and displayed as total amounts for a preceding period or succeeding period.

The following table describes a period profile set up to accommodate detailed and summary-level planning for long-term projects. This period profile enables entry of amounts for a mix of monthly, quarterly, semiannual, and annual periods for a span of five years.

Period Grouping	Number of Periods	Year
1	12	1

Period Grouping	Number of Periods	Year
2	6	2
3	3	2
4	3	2
5	1	3
6 (current period)	1	3
7	1	3
8	1	3
9	1	3
10	1	3
11	3	3
12	3	3
13	12	4
14	12	5

Assume that the period profile is associated with a project with the following details:

- Start Date: July 1, 2005
- Duration: 10 years
- Current Planning Period: Aug-2010

When you review financial or project plans, information appears as described in the following table:

Period or Period Group	Number of Periods	Duration
Preceding	36	July 2005 to June 2008
1	12	July 2008 to June 2009
2	6	July 2009 to December 2009

Period or Period Group	Number of Periods	Duration
3	3	January 2010 to March 2010
4	3	April 2010 to June 2010
5	1	July 2010
6	1	August 2010
7	1	September 2010
8	1	October 2010
9	1	November 2010
10	1	December 2010
11	3	January 2011 to March 2011
12	3	April 2011 to June 2011
13	12	July 2011 to June 2012
14	12	July 2012 to June 2013
Succeeding	36	July 2013 to June 2015

Examples of Period Profiles

Period profiles specify how periods are grouped and displayed when you edit financial or project plans that allow entry of amounts based on a calendar.

The following are examples of defining period profiles for planning short-term and long-term projects. Both examples assume the use of one-month periods from the accounting calendar.

Period Profiles for Short-Term Projects

The following table describes a period profile configuration that accommodates detailed planning for short-term projects. This period profile enables entry of amounts by month for a period of one year.

Period Grouping	Number of Periods
1	1

Period Grouping	Number of Periods
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1

Period Profiles for Long-Term Projects

The following table describes a period profile configuration that accommodates detailed and summary-level planning for long-term projects. This period profile enables entry of amounts for a mix of monthly, quarterly, semiannual, and annual periods for a span of five years.

Period Grouping	Number of Periods	Year
1	12	1
2	6	2
3	3	2
4	3	2
5	1	3
6	1	3

Period Grouping	Number of Periods	Year
7	1	3
8	1	3
9	1	3
10	1	3
11	3	3
12	3	3
13	12	4
14	12	5

16 Project Control Configuration: Spread Curves

Spread Curves

Spread curves let you distribute quantity, cost, and revenue amounts automatically across accounting or project accounting periods.

You assign a spread curve to each resource class. Planning resources (in the planning resource breakdown structure) inherit the spread curve setting from the associated resource class. You can change the spread curve for the planning resource and for any corresponding task assignments, or budget or forecast lines.

You can create spread curves, use predefined spread curves, or edit them as required. This topic describes the following spread curve components:

- Spread curves
- Spread points
- Distribution factors
- Predefined spread curves

Spread Curves, Spread Points, and Distribution Factors

Spread curves other than Daily Spread Basis and Even contain 10 spread points. Specify distribution factors for any combination of the spread points.

When using a daily spread basis, the application allocates amounts to each period based on the ratio of the days in the period to the duration of the task assignment. Spread points are distributed proportionately across periods during financial or project planning. For example, if amounts are to be spread across four periods, the application allocates the combined value of 2.5 spread points to each period. The spread points for each period are the total number of spread points divided by the total number of periods (10 / 4).

Distribution factors are prorated according to the spread points allocated to each period. For example, if $100 is to be spread across four months for a planning resource that uses an even spread curve (where amounts are distributed evenly), the application assigns each period $25. The amount assigned to each period is the total amount multiplied by the spread points for the period (2.5 * 10).

> **Note:** Spread points without values are assigned a zero distribution factor and hence corresponding periods aren't allocated any amounts.

Predefined Spread Curves

The following table lists the predefined spread curves:

Name	Description	Distribution Factors
Even	Linear distribution of financial or project plan values across periods.	10-10-10-10-10-10-10-10-10-10
Prorated Even	Linear distribution of financial or project plan values across periods, with an exception of the first period and last period in the financial plan. Financial or project plan values for the first period and last period are prorated based on the number of days in the period.	10-10-10-10-10-10-10-10-10-10
Back Loaded	Back-loaded distribution of financial or project plan values across periods. Assigned amounts increase over succeeding periods.	0-5-10-15-20-25-30-35-40-45
Front Loaded	Front-loaded distribution of financial or project plan values across periods. Assigned amounts decrease over succeeding periods.	45-40-35-30-25-20-15-10-5-0
S Curve	S-shaped distribution of financial or project plan values across periods.	18-10-8-10-15-17-18-17-15-8
Bell Curve	Bell-shaped distribution of financial or project plan values across periods. Assignment of plan values is highest in the middle periods.	0-4-10-12-14-12-10-4-0-0
Daily Spread Basis	Spread is based upon the number of days in each financial period throughout the duration of the task assignment. Amounts are proportionally distributed throughout all periods for the duration of the task assignment.	None

Spread Curve Distribution

As a project manager, with the Enhanced Spread Curve Distribution feature, you can now manage the different stages in your project timeline by extending resource assignment dates in the financial project plan without spreading the periodic amounts again. You can modify the resource assignment to end early, and select a period from which to spread the amounts that aren't allocated. Use the Edit Task Assignment Dates window of the Edit Period Amounts page to extend resource assignments dates.

Related Topics

- Examples of Distribution Factor Calculations for Spread Curves
- Calculate Project and Financial Plan Period Amounts Using Daily Spread Basis

Calculate Project and Financial Plan Period Amounts Using Daily Spread Basis

Assign the Daily Spread Basis spread curve to a resource class or planning resource to proportionately distribute amounts across periods based on the ratio of the days in each period to the duration of the task assignment.

Settings That Affect Amount Distribution

You can't define spread points for the Daily Spread Basis spread curve. Therefore, distribution factors aren't calculated. Task assignment start and finish dates determine the number of days in each period, including the first and last periods, and consequently the allocation factor for each period.

Note: Assignment start and finish dates are included in the number of days in the period.

How Daily Spread Basis Amounts Are Calculated

When calculating period amounts, Oracle Fusion Cloud Project Management performs the following steps:

1. Determines the number of days in the first and last period within the task assignment duration using assignment start and finish dates.
2. Determines the number of days in the other periods within the assignment duration.
3. Determines the total number of days for the duration of the task assignment.
4. Calculates the allocation factor for each period using the following formula:

   period allocation factor = number of days in period / task assignment duration
5. Calculates the periodic amount using the following formula:

   amount = period allocation factor * total resource cost or revenue

Example: Standard Accounting Calendar

In this example, a company uses an accounting calendar with periods that are identical to calendar months. A resource is assigned to a task for 121 days, from February 21 until June 21.

The following table shows how the task assignment days are determined, and the resulting allocation factors.

Month	Period Dates	Days in Period	Task Assignment Days	Period Allocation Factor
January	January 1 through January 31	31	0	0
February	February 1 through February 28	28	8	8 / 121 = 0.0661
March	March 1 through March 31	31	31	31 / 121 = 0.2561

Month	Period Dates	Days in Period	Task Assignment Days	Period Allocation Factor
April	April 1 through April 30	30	30	30 / 121 = 0.2479
May	May 1 through May 31	31	31	31 / 121 = 0.2561
June	June 1 through June 30	30	21	21 / 121 = 0.1735
			121	121 / 121 = 1

Example: 4-4-5 Accounting Calendar

In this example, a company uses a 4-4-5 accounting calendar, with four weeks in the first and second months of the quarter, and five weeks in the third month of the quarter. A resource is assigned to a task from February 21 until June 21.

The following table shows how the task assignment days are determined, and the resulting allocation factors.

Month	Weeks in Period	Week Number	Ledger Start Date	Ledger End Date	Days in Period	Days in Ledger	Task Assignment Days	Period Allocation Factor
January	4	1	1	7	7			
		2	8	14	7			
		3	15	21	7			
		4	22	28	7	28	0	0
February	4	1	29	4	7			
		2	5	11	7			
		3	12	18	7			
		4	19	25	7	28	5	5 / 121 = 0.0413
March	5	1	26	4	7			
		2	5	11	7			
		3	12	18	7			
		4	19	25	7			

Month	Weeks in Period	Week Number	Ledger Start Date	Ledger End Date	Days in Period	Days in Ledger	Task Assignment Days	Period Allocation Factor
		5	26	1	7	35	35	35 / 121 = 0.2892
April	4	1	2	8	7			
		2	9	15	7			
		3	16	22	7			
		4	23	29	7	28	28	28 / 121 = 0.2314
May	4	1	30	6	7			
		2	7	13	7			
		3	14	20	7			
		4	21	27	7	28	28	28 / 121 = 0.2314
June	5	1	28	3	7			
		2	4	10	7			
		3	11	17	7			
		4	18	24	7			
		5	25	1	7	35	25	25 / 121 = 0.2066
							121	121/121 = 1

Examples of Distribution Factor Calculations for Spread Curves

Distribution factors are prorated according to the spread points allocated to each period.

For example, if $100 is to be spread across four months for a planning resource that uses a prorated even spread curve (where amounts are distributed evenly), then each period is assigned $25 each. That is, 10 spread points spread over 4 months equals 2.5 spread points per period. Each spread point has a distribution factor of 10.

The following is a description of how distribution factors are calculated for full or partial periods.

Calculating Weighted Distribution Factors

To continue our previous example: Say our planning resource was using a back-loaded spread curve rather than a prorated even spread curve.

> **Note:** Default distribution factors for a back-loaded spread curve are as follows: 0-5-10-15-20-25-30-35-40-45. Hence the total distribution for the spread curve is 225.

The following table describes how distribution factors are determined and amount allocated over the four planning periods.

Period	Distribution Factor Calculation	Weighted Distribution Factor	Distribution Percentage	Distributed Amount
1	Distribution factors assigned to spread points 1 and 2 plus half of the distribution factor assigned to spread point 3: 0 + 5 + (0.5 * 10)	10.0	4.44%, (10.0/225)	$4.44
2	Half of distribution factor assigned to spread point 3 plus distribution factors assigned to spread points 4 and 5: (0.5 * 10) + 15 + 20	40.0	17.78%, (40.0/225)	$17.78
3	Distribution factors assigned to spread points 6 and 7 plus half of the distribution factor assigned to spread point 8: 25 + 30 + (0.5 * 35)	72.5	32.22%, (72.5/225)	$32.22
4	Half of distribution factor assigned to spread point 8 plus distribution factors assigned to spread points 9 and 10: (0.5 * 35) + 40 + 45	102.5	45.56%, (102.5/225)	$45.56

Period	Distribution Factor Calculation	Weighted Distribution Factor	Distribution Percentage	Distributed Amount
	Totals	225	100%	$100

Deriving Spread Point Values and Prorating Distribution Factors for Partial Periods

Transaction start dates associated with a planning resource or task frequently don't coincide with the start or end dates of a period. In such a case, the actual number of planning resource or task transaction days determines how spread points and constituent distribution factors are allocated to full and partial periods.

Assume that the dates for a task assignment cover only 15 days of the first month (a 30-day month) of a four-month planning period. That first month represents the value of 0.5 spread points.

In such a case, the spread point value for each full period is calculated by dividing the total number of spread points (10) by the number of periods corresponding to the transaction (3.5). In other words, spread point values are as follows:

- Full period : 10/3.5 = 2.8571
- Partial Period: (10/3.5) * 0.5 = 1.4287

Related Topics

- How are distribution factors calculated for forecast ETC periods?

17 Project Control Configuration: Financial and Project Plan Types

Financial and Project Plan Types

Financial plan types contain default setup information and planning options that you use for creating different types of budgets or forecasts. Similarly, project plan types contain default information used for creating a project plan and capturing progress.

When creating budget or forecast versions for a project, you must select an appropriate financial plan type. Versions inherit planning options from the financial plan type. Depending on access levels, you can change some settings.

You associate one project plan type to a project template, and override planning options if required. Projects created using the template inherit the updated planning options. You can revise these options at the project level, or even replace the project plan type.

As a project application administrator, you can now modify the project workflow status changes and enable the multicurrency support for a financial plan type after creating a financial plan type version.

Financial and Project Plan Setup Options

The following table describes the basic budget, forecast, or project plan setup options that determine how a plan type is used in the context of a project. Except for third-party scheduling, you can't edit these options at the project level.

Option	Location	Description
Planning amounts	Financial plan type	Indicates that the financial plan type supports the creation of versions with the following amounts: • Cost amounts • Revenue amounts • Both cost and revenue amounts • Either cost or revenue amounts
Approved budget or primary forecast	Financial plan type	Determines whether a financial plan type is used for creating approved budget versions or primary forecast versions that are used for plan comparison or project performance reporting.
Default financial plan type	Financial plan type	Determines whether the financial plan type is the default selection when you create budget or forecast versions.
Workflows	Financial plan type	Enables the use of a workflow for managing budget or forecast status changes.

Option	Location	Description
		A financial plan version baseline or approval will undergo the approval process only if the Use workflow for status changes option is enabled at the financial plan type level.
Third-party scheduling software	Project plan type	Indicates whether project planning is performed in Microsoft Project. If third-party scheduling is disabled in the project plan type, you can use the associated project or project template to create a project in Microsoft Project. However, you can't export the new project or link it to one created in Oracle Fusion Cloud Project Management.
Multiple transaction currencies	Financial and project plan type	Enables entry of plan amounts in currencies other than the project currency. When the financial plan type allows transactions in multiple currencies, the **Assign Resource in Single Currency for a Task** check box is displayed under the Currency Settings tab. Select this check box to assign resources in a single currency for a task to create a budget or forecast line. Project costs that are incurred in another currency are mapped to the existing budget or forecast line. For example, this check box is selected on a forecast version with a forecast line in USD. If project costs are incurred in EUR for the same forecast line, then the project cost is mapped to the existing forecast line in USD instead of creating a new forecast line in EUR. **Note:** The option to assign a resource in single currency for a task applies only to the financial plan type.
Budgetary control settings	Financial plan type	Manages options for creating control budgets in Oracle Budgetary Control.

Related Topics

- Options for Planning Amounts in Financial Plan Versions
- What happens if I use Microsoft Project as a third-party scheduling application?

Considerations for Selecting Rate Schedules for Project and Financial Planning

When specifying rate settings for financial or project plan types, you select to use either actual or planning rates for calculating cost or revenue for planning resources.

Actual rates are those that are used for calculating actual amounts for expenditure items. If you use planning rates, then you can select rate schedules created specifically for planning purposes.

The following is a description of the points to consider when selecting actual or planning rate schedules for calculating raw costs, burdened costs, and revenue.

Selecting Rate Schedules when Using Actual Rates

When using actual rates for project plan types and financial plan types that support cost amounts, you select cost rate schedules at the resource class level. Similarly, for financial plan types that support revenue amounts, you select bill rate schedules at the resource class level. If the application is unable to determine cost or bill rates for a planning resource, then it uses the resource class rates schedules that you defined in the Rate Settings tab. For named persons, the rates for planning costs are derived from the named person's business unit or organization when the projects business unit or organization is different from the named person's business unit or organization.

The precedence order for determining the rate schedule to compute the planning costs for the resource is as follows:

1. Cost rate overrides defined at the project or task level.
2. Rates or rate schedules associated with the labor costing overrides.
3. Rate schedules associated with the organization costing rules.

If cost rate overrides are defined at the project or task level, then the relevant cost rate override that's active for the resource assignment duration is used.

If cost rate overrides aren't defined but labor costing overrides are defined for the person in the **Manage Labor Costing Overrides** setup task, then the override that's active on the start date of the planning period (or the start date of the financial project plan, budget, or forecast in case of non-periodic plans) is used to determine the rate or the rate schedule to compute the planning costs for the resource.

Lastly, if neither cost rate overrides nor labor costing overrides are defined but the organization costing rules are defined for the business unit (or expenditure organization or both) in the **Manage Organization Costing Rules** setup task, then the rule that's active on the start date of the planning period (or the start date of the financial project plan, budget, or forecast in case of non-periodic plans) is used to determine the rate schedule to compute the planning costs for the resource.

If the **Use planning rates** check box (under the Rate Settings tab in the Planning Options section) isn't selected and the actual cost rates can't be determined because cost rate overrides, labor costing overrides, or organization costing rules aren't defined, then the **Resource Class Raw Cost Rate** that you defined in the Rate Settings tab is used to compute the planning costs for the resources in the financial project plans, budgets, and forecasts.

Selecting Rate Schedules when Using Planning Rates

Some of the reasons for using planning rates are as follows:

- Project planning extends into the future, beyond dates for which actual rates are available. Using planning rates enables you to plan for future periods by making assumptions about potential rate increases or decreases.
- Planning is at a more summary level than when using actual rates. For example, use job-based rate schedules to plan, but actually track labor costs using cost rates defined at the employee level.

When using planning rates, you select rate schedules at the resource, job, and resource class levels. The following table summarizes the precedence order for determining cost or bill rates for a planning resource when deriving raw costs or revenue for rate-based planning resources.

Rate Source	Precedence	Description
Override rate	1	Rate manually entered by users in the budget, forecast, or project plan
Labor or nonlabor rate schedules	2	Rate schedules selected for labor or nonlabor resources
Job rate schedules	3	Applicable only for labor resources
Resource class rate schedules	4	Used when rates aren't available at the resource level. Specifying a resource class rate schedule is optional.

Specifying a Burden Schedule when Using Planning Rates

Optionally specify a burden schedule when specifying planning rate schedules. Project Financial Management applications use this burden schedule to calculate the burdened cost for all planning resources (including those that aren't rate-based).

If an expenditure type isn't associated with the planning resource, then Project Financial Management applications use the expenditure type defined for the associated resource class to determine the burden multiplier, and ultimately, the burdened cost.

Specifying Rate Derivation Dates

While creating or editing a financial or project plan type, under the Plan Settings tab in the Planning Options section, you can select the rate derivation date type based on which the date calculations are performed.

If you select **Effective resource rate dates** as the rate derivation date type, then the existing rates are overridden. The application checks for rates on the period start date and considers the multiple rates defined for specific time-intervals throughout the period.

Some points to consider:

- The **Effective resource rate dates** option is available for planning cost amounts. It's not available for planning revenue amounts.

- The rates (for example, person rate and job rate) within a period must be defined in the same currency.
- After a rate schedule is determined to calculate the planning cost for a period, if no rates are found within that rate schedule for one or more days, the application doesn't search for other rate schedules to compute cost.

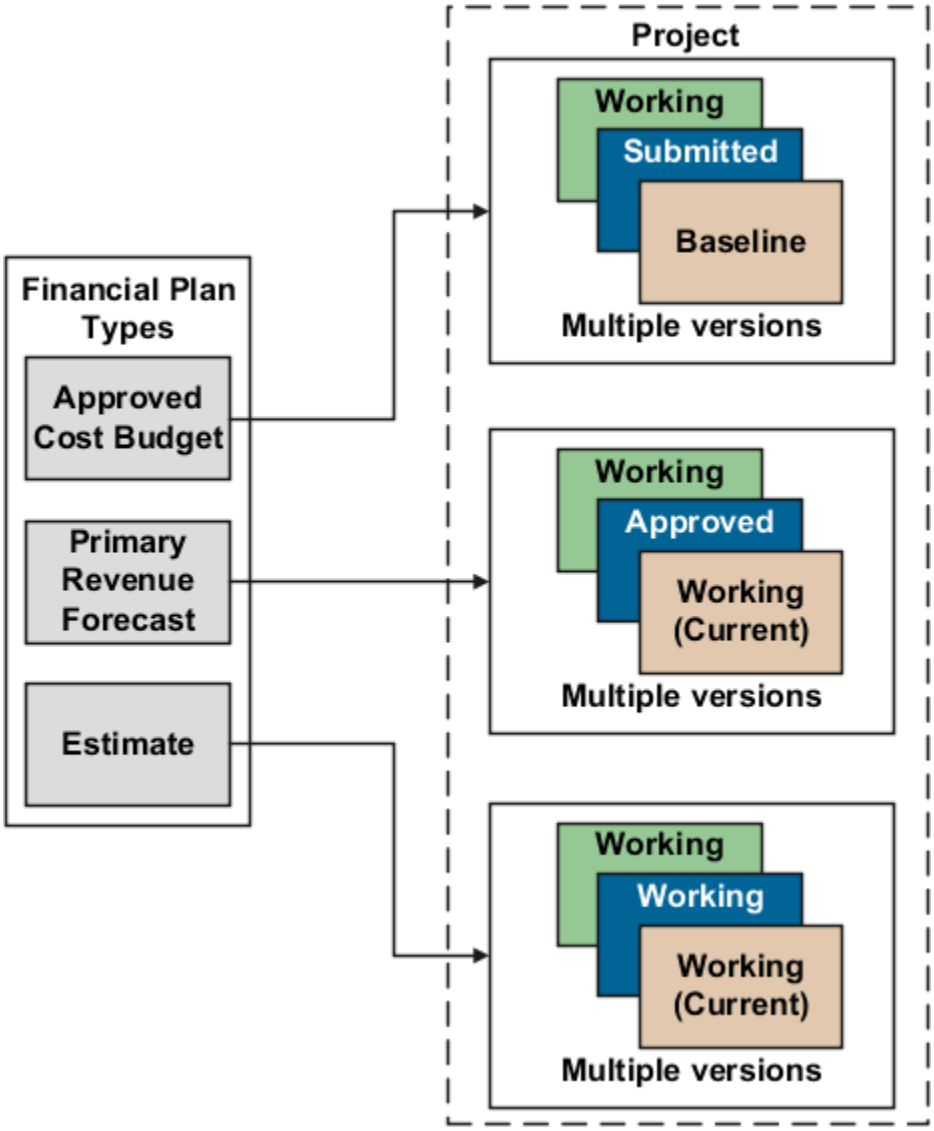
Create Financial Plan Types

Create financial plan types to define default information and planning options for creating different types of budgets or forecasts.

While creating a financial plan type, you can associate one or more sets, specify plan, currency, rate, and budgetary control settings, and select generation, export, and reporting options.

Create any number of financial plan types based on company requirements as illustrated in the following figure. For example, if your organization has stringent financial planning and oversight requirements, you can create separate financial plan types for each planning scenario. Alternatively, you may create only a few financial plan types, for example, for approved budgets and primary forecasts.

The following graphic illustrates how you can have multiple financial plan types for your projects. The financial plan types can be approved cost budget, primary revenue forecast, estimate, and so on. The versions can be working, submitted, approved, baseline and so on.



Here's how you create financial plan types.

Enter Basic Information and Setup Options

To create a financial plan type:

1. In the Setup and Maintenance work area, go to the **Manage Financial Plan Types** task.
2. Use the Manage Financial Plan Types page to create, review, edit, or delete existing financial plan types.
3. Click the **Create** icon to open the Create Financial Plan Type page.

   Use the Create Financial Plan Type page to enter basic financial plan type information, and setup and planning options that determine how associated financial plan versions are created.
4. Enter a unique financial plan type name and select a date from which the financial plan type is available for use.
5. Optionally, provide a description and a date to which the financial plan type is available for use.
6. Use the **Plan Class** list to determine whether project managers will use the financial plan type to create budget versions or forecast versions.

7. Use the **Planning Amounts** list to determine whether associated financial plan versions will contain cost amounts, revenue amounts, or both.

   If you want to create a financial plan type to plan for both cost and revenue, indicate whether one version will contain both amounts, or if project managers must select to include either cost or revenue amounts when creating a budget or forecast version.
8. Select setup options depending on whether you're creating a financial plan type of the **Budget** or **Forecast** plan class.

   If you're creating a financial plan type of the **Budget** plan class, make decisions as listed in the following table.

Option Name	Decision	Notes
Designate as approved cost budget Designate as approved revenue budget	Is the financial plan type an approved budget?	Decide whether the financial plan type will create cost and revenue versions used for plan comparison or project performance reporting.
Designate as award budget	Will you use the financial plan type to create budgets for sponsored projects?	Select this option if the financial plan type will create control budgets for sponsored projects.
Use workflow for status changes	Will you use an approval workflow?	Use workflow to trigger notifications when project managers change the version status or submit a request to change the version status.
Set as default financial plan type Set as default award financial plan type	Do you want the financial plan type to be the default selection?	Set the financial plan type as the default, if for example, you anticipate it to be the most commonly used for creating budget versions.
Enable planning in multiple transaction currencies	Will project managers enter amounts in multiple currencies?	Decide whether project managers can enter amounts in currencies other than the project currency. **Note:** o To use transaction currencies, you must define currency attributes on the Currency Settings tab. o When the financial plan type allows transactions in multiple currencies, the **Assign Resource in Single Currency for a Task** check box is displayed under the Currency Settings tab. Select this check box to assign resources in a single currency for a task to create a budget or forecast line. Project costs that are incurred in another currency

Option Name	Decision	Notes
		are mapped to the existing budget or forecast line. For example, this check box is selected on a forecast version with a forecast line in USD. If project costs are incurred in EUR for the same forecast line, then the project cost is mapped to the existing forecast line in USD instead of creating a new forecast line in EUR.
Enable budgetary controls	Will you create control budgets with the financial plan type?	Decide whether the financial plan type will create cost budget versions that create control budgets in Oracle Budgetary Control. **Note:** In the Manage Budgetary Control and Encumbrance Accounting setup page, if the **Control Budget Filter** option is set to **Ledger only**, then you can't create a budget using a financial plan type that's enabled for budgetary controls.

If you're creating a financial plan type of the **Forecast** plan class, make parallel decisions for the following attributes:

- Designate as primary cost forecast
- Designate as primary revenue forecast
- Use workflow for status changes
- Set as default financial plan type

The following table lists a few more decisions that you need to take when creating a financial plan type of the **Forecast** plan class.

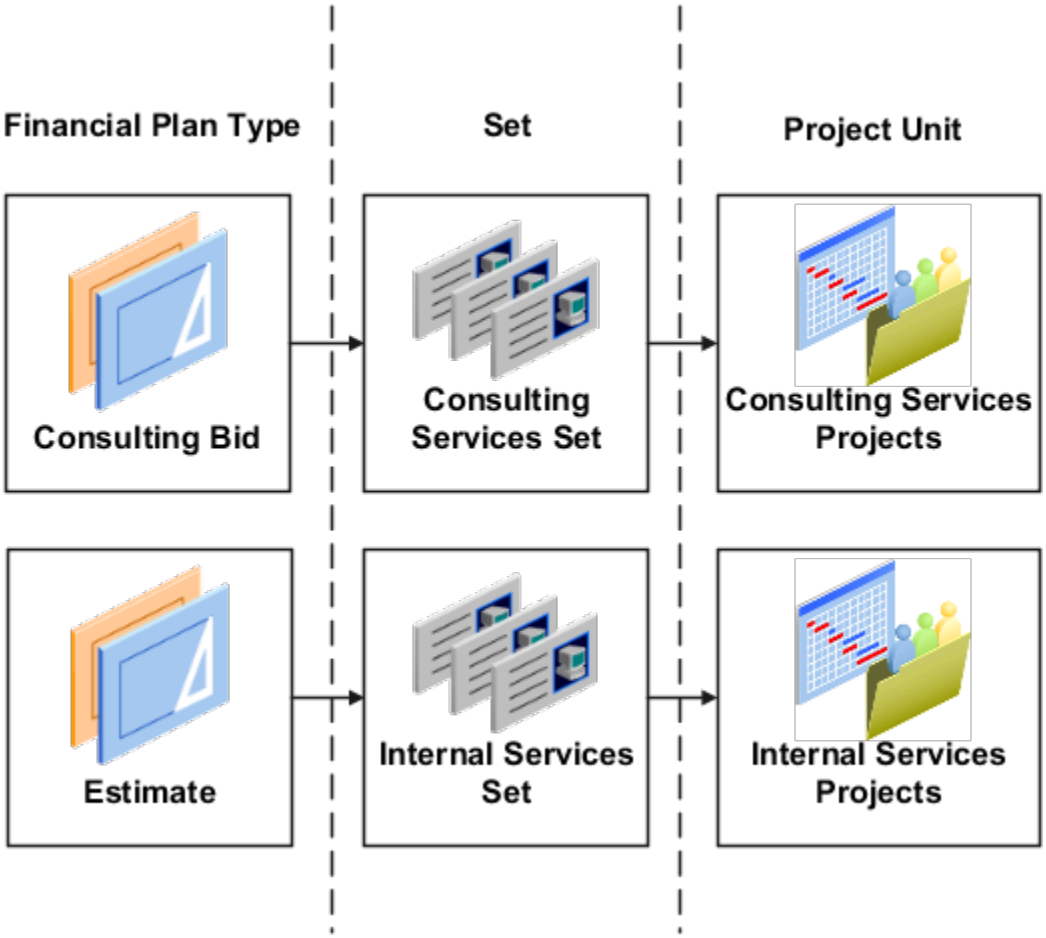
Option Name	Decision	Notes
Automatically submit forecasts for approval	Can forecasts be automatically submitted for approval?	Automatic submission for approval applies only to primary forecasts. When the project manager creates the first baseline version for the approved budget, the application creates the primary forecast version and submits it for approval.
Automatically approve forecasts	Can project managers directly approve forecasts?	If you don't use workflow for forecast approvals, decide if project managers can approve forecast versions directly (without first submitting them to an approver).

Option Name	Decision	Notes
		Tip: The automatically approve forecasts option applies even if project managers aren't entitled to approve forecasts. So, use it to enable automatic approval for certain financial plan types while controlling the forecast approval entitlement for others.

Assign Sets

You associate one or more sets with financial or project plan types so that project managers can use them to create financial plans (budget or forecast versions) for projects or project templates. Financial plan types are available for selection only when projects or project templates are created for project units linked to selected sets.

The following figure illustrates an example of set assignments. The Consulting Services set is associated only with the Consulting Services project unit. You associate the Consulting Bid financial plan type only with the Consulting Services set. In this case, only project managers who create projects for Consulting Services can create versions of the Consulting Bid financial plan type.



If you associate the Internal Services Set to the Consulting Bid financial plan type, then project managers from the Internal Services project unit can also access that financial plan type.

> **Tip:** To make financial plan types available more widely across your organization, you can assign them to a common set.

To assign sets:

1. Navigate to the Set Assignments tab.
2. Click the **Add Row** icon to add a set assignment.
3. Select the **Code** of the desired set.
4. Repeat the process for each set to which the financial plan type is assigned.
5. Click **Save**.

Specify Plan Settings

Use the Plan Settings tab to specify the cost and revenue amounts to include in budget or forecast versions, level of detail for planning, calendar and period options, and rate derivation options.

Navigate to the Plan Settings tab and make the following decisions related to the amount types that are available for editing on budget and forecast versions and how they're edited and displayed.

Option Name	Decision	Notes
Amount Types	What measures can project managers plan for on a budget or forecast?	Decide whether to plan for quantities, amounts, and rates. When selected, corresponding fields are editable on the Edit Budget and Edit Forecast pages. For example, when creating a financial plan type for internal projects that don't track cost amounts, project managers can select quantity and deselect cost and rates. **Tip:** If you're planning for cost and revenue, select the **Use cost plan options for revenue** check box to replicate your cost selections to revenue. Note that this check box applies to current changes only. If you update cost options later, you must select the check box again to copy.
Planning Level	What measures can project managers plan for on a budget or forecast? At what level of the task hierarchy will project managers plan?	Determine the level of the task structure at which project managers will enter budget or forecast amounts. For example, create one financial plan type for capturing detail cost amounts at the lowest task level, another to capture summary cost amounts at the top task level, and a third to capture total revenue amounts at the project level.
Calendar Type	Will project managers plan by period or for duration of plan lines?	Decide whether to plan for the duration of budget or forecast lines or to plan for specific periods in the accounting calendar or project accounting calendar.
Calendar Type	Will you use the financial plan type to create control budgets for sponsored projects?	Select the **Award Calendar** calendar type if you will use the financial plan type to create control budgets for sponsored projects. This calendar type creates the calendar for control budgets based on the budget periods defined for the award.
Calendar Type	Will you use the financial plan type to create control budgets for nonsponsored projects?	Select either the **Accounting Calendar** or **Project Accounting Calendar**, or **None** as the calendar type if you will use the financial plan type to create control budgets for nonsponsored projects. These calendar types create calendars for control budgets by using the accounting period or project accounting period. If you select **None** as the calendar type, then either the project duration or the maximum

Option Name	Decision	Notes
		task assignment duration is used to create calendars for control budgets.
Cost Rate Derivation Date Type	How will cost rates be determined?	If project managers won't plan based on a calendar, determine whether cost rates are derived based on the start or end date of plan lines, system date, a fixed date, or on effective resource rate dates. If project managers plan based on the accounting calendar or project accounting calendar, then determine whether cost rates are derived based on the start date of plan lines or on effective resource rate dates.
Period Profile	How will period amounts be displayed?	If project managers enter planning amounts by period, select how the periods are grouped for display when editing budget or forecast versions. Use predefined period profiles or create period profiles based on your requirements on the Manage Period Profiles page.
Maintain manual spread on date changes	Do you want to retain manual periodic spread on date changes?	Decide whether to retain manual periodic spread even if the duration changes due to a scope change. The period-level adjustments previously made to the forecast or budget line aren't lost when you modify the line dates in the user interface. **Note:** The **Maintain manual spread on date changes** option doesn't apply to non-periodic calendar versions.
Associate project costs or revenue to summary tasks (if you're planning in both cost and revenue planning amounts) Associate project costs to summary tasks (if you're planning in cost only planning amounts) Associate project revenue to summary tasks (if you're planning in revenue only planning amounts)	Do you want to associate cost and revenue to planned resource assignments in the task hierarchy?	Decide whether to associate the incurred costs or revenue for resources on the task hierarchy at the level planned. **Note:** This check box is available for selection only when the **Plan Class** is set to **Forecast** and the **Planning Level** is set to **Project and all tasks**.

Select Currency Settings and Rate Settings

Use the Currency Settings tab to select transaction currencies in which to enter financial plan amounts, and the rates for converting those amounts to project currency, project ledger currency, or planning currency.

1. Navigate to the Currency Settings tab.

   If you selected the **Enable planning in multiple transaction currencies** check box, then the following options are displayed:

   - **Assign Resource in Single Currency for a Task** check box - Select this check box to assign resources in a single currency for a task to create a budget or forecast line. Project costs that are incurred in another currency are mapped to the existing budget or forecast line. For example, this check box is selected on a forecast version with a forecast line in USD. If project costs are incurred in EUR for the same forecast line, then the project cost is mapped to the existing forecast line in USD instead of creating a new forecast line in EUR.
   - **Edit** icon - Click this icon and set the planning currency.
2. Select the following currency conversion attributes to define how the application must convert transaction currency amounts to project currency, project ledger currency, and planning currency. If the financial plan type supports planning for cost and revenue, then you must provide currency conversion attributes separately for cost and revenue.

   - **Rate Type** as a source of conversion rates.
   - **Date Type** to determine whether conversion rates are derived based on the start or end date of plan lines, or a fixed date.
   - If you selected **Fixed date** as the **Date Type**, then enter the date from which conversion rates will be used in the **Fixed Date** field.

   Note:
   - When the **Use same conversion attribute for all currency conversions** check box is selected the same currency conversion attributes are used for all currencies. If you clear this check box, then you must repeat this step for each transaction currency that project managers can use.
   - If the **Enable planning in multiple transaction currencies** check box is selected and you clear the **Use same conversion attribute for all currency conversions** check box, then you must select the **Rate Type**, **Date Type**, and **Fixed Date** for the project currency, project ledger currency, and planning currency.
3. Click **Save and Close**.

Use the Rate Settings tab to specify the actual or planning rates used to calculate cost and revenue amounts on associated budget or forecast versions.

Note: If the financial plan type supports planning for cost and revenue, you specify rate settings separately for cost and revenue.

Add required project roles to the project and directly create work plan or financial plan by project roles and perform high-level planning. In either of these cases, the application derives cost rates for these project role resources from the project role rate schedules associated with the project, and bill rates from the project role overrides setup at the contract

level. Further, create project budget and forecast from the financial project plan containing the project role assignments or directly from project resources, thus accurately determining projections for cost and revenue.

1. Navigate to the Rate Settings tab.
2. Click **Add Row** in the Rate Schedules section to specify rate settings for a business unit. You must specify rate settings separately for each business unit.
3. Determine if project managers will use the same rate schedules defined for the project to calculate actual costs, or use separate rate schedules for planning purposes.
4. To use actual rates, deselect the **Use planning rates** check box. In the Details section, optionally select rate schedules for **Resource Class Raw Cost Rate** and **Resource Class Bill Rate**.

   If the application is unable to determine cost or bill rates for a planning resource, then it uses the resource class rates schedules you specify here.
5. To use planning rates, select the **Use planning rates** check box. In the **Details** section, select separate rates for Person, Job, Project Role, Nonlabor Resource, and Resource Class, as required. You can also select a burden schedule to use for calculating burdened costs for all planning resources (including those that aren't rate-based).
6. Repeat the process for each business unit for which you want to select rates.
7. Click **Save**.

Select Budgetary Control Settings

Use the Budgetary Control Settings tab to define the control budgets that you can create. Control budgets are automatically created in Oracle Budgetary Control when you create the baseline version of a project budget that's enabled for budgetary control.

> **CAUTION:** The financial plan type must be enabled for budgetary controls for the Budgetary Control Settings tab to be available.

Navigate to the Budgetary Control Settings tab and make the following decisions related to the project and top resource control budgets.

Option Name	Decision	Notes
Control Budget	How will you define the control budget, using which project-related segments?	Decide whether to control amounts in the budget version at the project or top resource level for non sponsored projects or at the project, award, top resource, or funding source level for sponsored projects. These amounts are passed to the control budget, and Oracle Budgetary Control uses the project and top resource level budget data to create control budget account segments.
Control Level	How strictly do you want to control the funds that are reserved for expenditures that impact the control budget?	Select a control level for the project and top resource control budgets. The options are: • Absolute • Advisory • Track • Do Not Create Control Budget

Option Name	Decision	Notes
Default Rate Type	Which rate type will convert the transaction amount to the control budget currency prior to the funds check?	Select a default rate type to use on control budgets that are created from this financial plan type. You can change the rate type on individual budget versions. If transactions fail processing due to missing currency conversion attributes, then ensure that you specify this rate type and that the conversion rate is setup using this rate type for the currency in the Manage Conversion Rate Types page.
Tolerance Percentage	By what percentage can transactions exceed the budgeted amount without generating a warning or exception?	Transactions that impact the control budget can exceed the budgeted amount by the percentage that you enter. After transactions meet or exceed the tolerance level, a notification is issued or the funds reservation process fails.

Select Generation Options

Use the Generation Options tab to indicate how cost and revenue are calculated when you generate a budget or forecast version from another financial plan or from the project plan.

Perform the following actions if you're creating a financial plan type of the **Budget** plan class.

1. Navigate to the Generation Options tab.
2. Select a **Generation Source** to determine whether budget versions must be generated from another financial plan or from the project plan.
3. If you selected **Financial plan type** as the generation source, select a **Source Plan Type** to indicate which financial plan type the source plan must belong to.
4. Select a **Source Plan Version**.
    - If your generation source is **Project plan type**, then you can select either **Working** or **Baseline**.
    - If your generation source is **Financial plan type** and your source plan type is a budget financial plan type, then you can select **Current baseline**, **Original baseline**, or **Current working**.
    - If your generation source is **Financial plan type** and your source plan type is a forecast financial plan type, then you can select **Current approved**, **Original approved**, or **Current working**.
5. If the financial plan type supports planning for revenue, select a **Revenue Generation Method**. The following table describes the options.

Option Name	Description
Manual entry	Revenue amounts aren't generated. Project managers can enter amounts manually. Manually entered revenue amounts are retained even if any changes are made to quantity, raw cost, or burdened cost of an individual plan line; at the periodic level or version level. Also, when you refresh rates, the revenue isn't recalculated based on the rate derivation logic to fetch rates from the rate schedules defined in plan settings.

Option Name	Description
Planning rate based	Revenue amounts are generated based on the planning rates you specify in the Rate Settings tab of the financial plan type.
Contract revenue classification method	Revenue is generated line by line, using the revenue method classification on the revenue plan that's associated with the contract line. The contract line revenue method classifications determines if revenue rates, bill rates, or contract line funding amounts are used to derive revenue. If you're using the **Contract revenue classification** method for determining revenue amounts for financial plans, then the expected revenue for the project is reflected based on the parameters known at that time. o For projects or tasks that are associated to contract lines with Amount Based revenue plans, the best estimate is the funding amount that's assigned to that project or task on the contract line. o For projects or tasks that are associated to contract lines with Rate Based revenue plans, for example, As Incurred, the best estimate is based on the planned resources and the rates that they will eventually use when billing and recognizing revenue. o For financial resources, the rate is determined using the Resource Class Bill Rate schedule that's assigned to the financial plan. If the assigned Resource Class Cost and Bill Rate schedules are the same, then the planned cost and revenue are also the same.

6. Select the **Retain manually added budget lines** check box if plan lines added by project managers must be retained when an existing version is generated again.
7. Select the **Retain override rates from source** check box if override rates entered in the source plan version must be used to generate amounts in the new budget version.
8. Click **Save**.

If you're creating a financial plan type of the Forecast plan class, in addition to the decisions listed for budget financial plan types, you must also determine the following:

1. The following table lists the **Forecast ETC Method** that you can use to determine how ETC amounts are calculated. Select one of the options.

Option Name	Resulting Calculation
Remaining plan	ETC = Plan - Actual
Plan to complete	ETC = Plan - Actual ETC = Plan * (1 - Physical Percent Complete from latest Published Progress)
Cost performance index based	ETC = (1 - Physical Percent Complete) / Physical Percent Complete * Actual Actual amounts are from summarized project plan data and physical percent complete from latest published progress.

Option Name	Resulting Calculation
	Note: If either the physical percent complete or actual amounts are zero, then the **Plan to complete method** is used.
Manual entry	ETC amounts not calculated

2. If you're using the **Remaining plan** ETC method, then select the **Carry forward unused amounts from past periods** check box to carry over unused source plan amounts from periods prior to the actual amounts through period.
3. Select one of the following options for the **Actual Amounts Through Period** field to determine the period through which to obtain actual amounts when generating forecast amounts:
    - **Current period**
    - **Prior period**
    - **Last closed period**
4. Select the **Allow negative ETC calculation** check box if you don't want negative results of ETC calculation to be set to zero.
5. Select the **Open commitments** check box to include commitments such as purchase orders and supplier invoices in the project forecast.
6. Click **Save**.

Select Reporting Options, Export Options, and Additional Information

Use the Reporting Options tab to indicate how to roll up amounts for planning resources, report quantity when planning for cost and revenue in separate financial plan versions, calculate margins, and display amounts.

The following table lists the decisions you need to take while setting up reporting options for your project.

Option Name	Decision	Notes
Report Quantity	What quantity will be used for reporting?	If the financial plan type supports planning for cost and revenue in separate plan versions, decide whether cost or revenue quantity is used for reporting.
Report Cost	How will margin be calculated?	Decide whether to calculate margins based on raw cost or burdened cost.
Amount Scale	How will large amounts be displayed?	Decide how you want whole number amounts to display when project managers view quantities and amounts when reviewing and finalizing budgets or forecast versions. For example, select a rounding factor of 100 and a value of 25,000 is displayed as 250.

Option Name	Decision	Notes
Currency Type	What currency will cost and revenue be displayed in?	Decide whether you want amounts to be displayed in project currency or project ledger currency.

Use the Export Options tab to determine the amounts, rates, and quantities that you can export to Excel. The following table lists the decisions you need to take:

Option Name	Decision
Use task planned dates as task assignment dates	Select the check box to display currency conversion attributes and costs and revenue in project currency and project ledger currency when you edit financial plan versions in Excel. **Note:** This option is enabled if you select the **Enable planning in multiple transaction currencies** check box in the Budget or Forecast Options section.
Display commitments	Select the check box to display commitment amounts in Excel.
Selected Measures	Use the **Available Measures-Selected Measures** select shuttle to determine what financial plan information you can review and edit in Excel.

Use the Additional Information tab to capture information specific to your organization. To enable data entry, configure the PJO_PLANNING_OPTIONS_DFF descriptive flexfield.

Related Topics

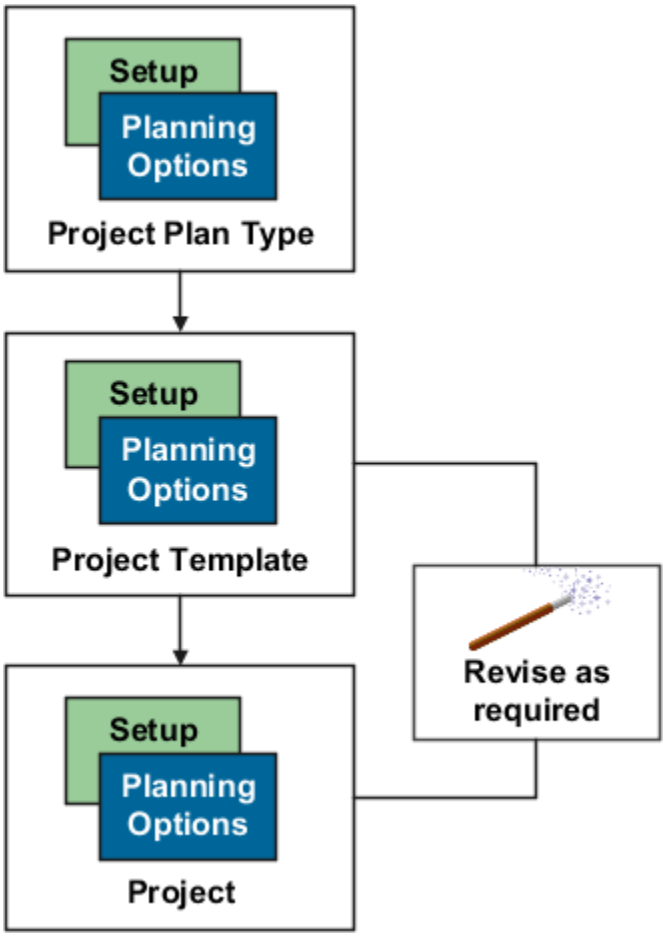
- Example of Set Association with Financial Plan Types
- How do I define the financial plan type to create an award project budget?
- Considerations for Selecting Rate Schedules for Project and Financial Planning
- Invoice and Revenue Method Components
- Invoice and Revenue Method Classifications
- How Financial Plan Types and Project Budget Versions Work With Budgetary Control
- Considerations for Changing a Revenue Method

Create Project Plan Types

Create project plan types to define default information used for creating a project plan and capturing progress.

While creating a project plan type, you can associate one or more sets, specify plan, task, currency, rate, and progress settings, and select budget generation options.

Associate one project plan type to a project template. Projects created using the template inherit setup and planning option values. You can revise setup or planning options at each level to match specific planning requirements. The following figure shows how you can edit the setup or planning options at the project template or project level.



The following sections describe how to create project plan types.

Enter Basic Information and Setup Options

To create a project plan type:

1. In the Setup and Maintenance work area, go to the **Manage Project Plan Types** task.
2. Use the Manage Project Plan Types page to create, review, edit, or delete existing project plan types.
3. Click the **Create** icon to open the Create Project Plan Type page.

   Use the Create Project Plan Type page to provide basic project plan type information and specify setup and planning options that determine how associated project plans and progress are created.
4. Enter a unique project plan type name and select a date from which the project plan type is available for use.
5. Optionally, provide a description and a date to which the project plan type is available for use.

6. Use the options in the Setup Options section to indicate whether:
    - Project managers can use Microsoft Project for scheduling.
    - Project managers can enter amounts in currencies other than the project currency.

    Note: When you select this option, you must provide currency conversion attributes in the Currency Settings tab.

Assign Sets and Specify Plan Settings

To assign sets and specify plan settings:

1. Navigate to the Set Assignments tab.

    Use the Set Assignments tab to associate sets with project plan types so that project managers can use them to create project plans for projects or project templates. For more information, see the Create Financial Plan Types section of this document.
2. Navigate to the Plan Settings tab.

    Use the Plan Settings tab to indicate whether you will track costs in the project plan and whether you will plan for the project duration or by periods.
3. The following table lists the decisions you need to take when assigning sets to your project.

Option Name	Decision	Notes
Enable project plan costs	Will project managers plan for costs on the project?	Enable project plan costs if project managers must plan for costs on tasks and task assignments and monitor actual costs through the project lifecycle. **Note:** If you don't enable planning for costs, then physical percent complete values are calculated based only on effort.
Set unplanned assignments as planned assignments	Can a resource with actuals get added directly as a planned resource to the financial project plan?	When this option is selected, as project costs are incurred, the resource is added as a planned resource to the financial project plan instead of being marked as unplanned. When assigning a resource as a planned resource, the application: - Defaults the dates from the task dates. You can edit these dates unless the **Use task planned dates as task assignment dates** check box is selected at project plan type level. - Defaults the currency to the actual currency if the project plan type allows

Option Name	Decision	Notes
		planning in multiple currencies, else it always assigns in the project currency. o Periodic spread for planned resource happens from the planned start date of the task or the actual period.
Associate project costs to summary task assignments	Do you want to associate cost to planned resource assignments in the task hierarchy?	Decide whether to associate the incurred costs for resources on the task hierarchy at the level planned. **Note:** This check isn't available for selection if the **Set unplanned assignments as planned assignments** or **Use third-party software for scheduling** check box is selected.
Calendar Type	Will project managers plan by period or for duration of plan lines?	Decide whether project managers will plan for the task assignment duration or if they can plan for specific periods in the accounting calendar or project accounting calendar.
Rate Derivation Date Type	How will cost rates be determined?	If project managers won't plan based on a calendar, then determine whether cost rates are derived based on the start or end date of plan lines, system date, a fixed date, or on effective resource rate dates. If project managers plan based on the accounting calendar or project accounting calendar, then determine whether cost rates are derived based on the start date of plan lines or on effective resource rate dates.
Fixed Date	How will cost rates be determined?	If the rate derivation date type is **Fixed Date**, then select the date from which rates will be used for calculating costs.
Period Profile	How will period amounts be displayed?	If project managers will enter planning amounts by period, then select how periods will be grouped for display when project managers view amounts for task assignments.

Option Name	Decision	Notes
Maintain manual spread on date changes	Do you want to retain manual periodic spread on date changes?	Decide whether to retain manual periodic spread even if the duration changes due to a scope change. The period-level adjustments previously made to the forecast or budget line aren't lost when you modify the line dates in the user interface. **Note:** The **Maintain manual spread on date changes** option doesn't apply to non-periodic calendar versions.

Specify Task Settings

Use the Task Settings tab to specify task and task assignment date settings.

1. Navigate to the Task Settings tab.
2. The following table lists the ways in which you can enter and calculate the planned dates for tasks and task assignments.

Option Name	Decision
Use task planned dates as task assignment dates	Must task assignment dates match corresponding task planned dates? If yes, then project managers can't edit task assignment dates.
Automatically roll up task planned dates	Must planned dates for lowest-level tasks roll up to summary tasks? If yes, then project managers can't edit summary task dates.

CAUTION: The **Use task planned dates as task assignment dates** check box and the **Automatically roll up task planned dates** check box are disabled if you enable use of Microsoft Project as the scheduling application.

3. The following table lists the options that you can use to enter transaction dates.

Option Name	Decision
Synchronize task transaction dates with planned dates	Decide whether transaction dates must match the planned dates for tasks, plus or minus the date adjustment buffer.

Option Name	Decision
	If you don't select this check box, then transaction dates for summary tasks are blank by default. Transaction dates for subtasks are set to summary task transaction dates.
Date Adjustment Buffer in Days	Optionally, specify a date adjustment buffer to determine the maximum lag (positive) or lead (negative) time between task planned dates and task transaction dates.

4. Click **Save**.

Specify Currency Settings and Rate Settings

Use the Currency Settings tab to select transaction currencies in which to enter project plan amounts, and the rates for converting those amounts to project currency or project ledger currency.

Use the Rate Settings tab to specify the actual or planning rates used to calculate cost and revenue amounts on the project plan.

For more information on both tabs, see the Create Financial Plan Types section of this document.

Specify Progress Settings

Use the Progress Settings tab to define how progress values are calculated and roll up the task hierarchy. These options indicate default values that you can modify at the project level.

1. Navigate to the Progress Settings tab.
2. The following table lists the decisions you need to take on how the application should calculate physical percent complete values and rolls up task hierarchy.

Option Name	Decision	Notes
Physical Percent Complete Calculation Method	How is physical percent complete calculated for lowest-level tasks?	Decide whether project managers must enter physical percent complete or if the application calculates the value based on either cost or effort. Calculation is based on the following formula, where amount can be cost or effort, as appropriate: Actual Amount / Estimate at Completion (EAC) Amount * 100
Primary Physical Percent Complete Method	How does physical percent complete roll up the task hierarchy?	Decide whether the rolled-up physical percent complete for summary tasks is based on cost or effort.

Option Name	Decision	Notes
		Calculation is based on the following formula, where amount can be cost or effort, as appropriate: Sum of Earned Value Amount from Subtasks / Sum of Baseline Project Plan Amount * 100 **Note:** The rolled up physical percent complete value is used in project forecasting, reporting, and revenue generation.

3. Decide how ETC amounts are calculated as listed in the following table. The following table lists the ways in which you can calculate ETC amounts.

Option Name	Decision	Notes
ETC Method	How are ETC amounts calculated?	Use one of the following methods to calculation ETC values: - Remaining plan: For all progress calculations (initial and subsequent) ETC cost is calculated as: Current Planned Cost - Actual Cost - Manual entry: For first progress as-of date, ETC cost is calculated as: Current Planned Cost - Actual Cost For all subsequent progress as-of dates, ETC cost equals ETC cost from the previous published progress.
Allow negative ETC calculation	Can ETC values be negative or should they be set to zero?	If you're using the Remaining plan ETC method and actual amounts are greater than the plan, then you can select to display negative ETC amounts that result.

4. The following table lists the ways in which you can update the project plan information and generate a forecast version when publishing progress.

Option Name	Decision
Update planned quantity with EAC quantity	Decide whether planned quantity in the project plan is updated with EAC quantity from progress.

Option Name	Decision
Automatically generate forecast version	Decide whether a forecast version is created when the project manager publishes progress.
Financial Plan Type	Select the financial plan type for use in forecast creation.

5. Click **Save**.

Select Budget Generation Options

Use the Budget Generation Options tab to decide whether a budget version is generated when you set a baseline for your project plan and to specify how the budget version is generated. These options indicate default values that you can modify at the project level.

1. Navigate to the Budget Generation Options tab.
2. The following table lists the decisions you need to take when choosing to generate a budget version while setting a baseline for a project plan.

Option Name	Decision
Generate budget version	Decide whether a budget version is created when the project managers sets a baseline for the project plan.
Financial Plan Type	Select the financial plan type for use in budget creation.
Automatically designate budget version as baseline	Decide whether the budget version must be set as the current baseline version. **Note:** If an existing current baseline budget version exists, then the existing version becomes a standard baseline version and the newly created baseline version becomes the current baseline version.

3. Click **Save**.

Provide Additional Information

Capture information specific to your organization using the descriptive flexfield PJO_PLANNING_OPTIONS_DFF.

Financial Plan Types Included in Summarization

Approved forecast and baseline budget versions of the following financial plan types are included in the summarization of project performance data by default.

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

A budget or forecast financial plan type may support both cost and revenue in one version.

Additional Financial Plan Types Included in Summarization

Apart from the financial plan types that are included in the summarization by default, you can manually include up to four financial plan types in summarization of project performance data.

Tip: You can include a financial plan type before it's used on a project for creating a version.

You can replace a financial plan type only until the project performance data is summarized for reporting. After that, you can only disable the financial plan type to exclude it from further summarization.

FAQs for Financial and Project Plan Types

What happens if I edit a financial or project plan type after using it on a project?

Once you associate a project plan type with a project or project template, or create budget or forecast versions using a financial plan type, you can't edit certain financial or project plan setup options.

These setup options include the primary forecast and approved budget designations, use of workflow, and the use of multiple transaction currencies.

Also, changes made to a financial plan type apply only to new financial plan versions. Similarly, there is no impact on existing project associations when you modify a project plan type.

Why can't I select some financial plan types when generating a budget version while setting a baseline for the financial project plan?

As a project manager, when you generate a budget when setting a baseline financial project plan, you can select any active budget financial plan type that's available for budget creation.

However, some financial plan types (including the default financial plan type selected in the budget generation options of the project plan type) are unavailable for selection in the following circumstances:

- If you already selected an approved cost or revenue budget financial plan type for creating a budget version, then no other approved budget financial plan types are available.
- If you want to select a financial plan type with budgetary control enabled on it, then it's unavailable for selection in the following circumstances:
    - The project or template isn't enabled for budgetary control.
    - The business unit isn't enabled for budgetary control.
    - The project is a sponsored project, then only an award budget is expected to be enabled for budgetary controls.
    - A different budgetary control enabled financial plan type is already used.

Why can't I enable budgetary control on a financial plan type?

Certain conditions must exist for you to enable the budgetary controls option on a financial plan type. You can enable budgetary controls if:

- Budgetary control is enabled for the Project Accounting Business Function. Manage this option in the Manage Budgetary Control task of the Setup and Maintenance work area.
- The plan class is Budget.
- The planning amounts contain a cost component.

> **Note:** The option to enable budgetary controls isn't present on the financial plan type if the planning amounts are for revenue only.

What's a baseline financial project plan?

Key planned information for tasks and task assignments, including dates, costs, quantity, effort, and rates, that you can save from current project plan values.

Setting a baseline for a financial project plan doesn't create a new plan version.

As a project manager, you must set a baseline for your project plan before capturing progress. You can use the Manage Financial Project Plan page to set a baseline. Baseline amounts determine earned value for lowest-level tasks, which in turn are used to roll up physical percent complete to summary tasks.

You can't delete baseline data, and baseline data doesn't change unless you override it when you next set a baseline for the tasks.

> **Tip:** By generating a budget version when you set a baseline for your financial project plan, you can refer to the historical record of past baseline data.

18 Project Control Configuration: Financial Plans

Workflow of Budget and Forecast Approvals

Use Business Process Execution Language (BPEL) workflows to manage budget and forecast approvals. To do so, select to use workflow for status changes when creating or editing a financial plan type.

The following is a description of security considerations, approval rules, and the workflow process.

Addressing Security and Setting Approval Rules

Project administrators can use the Manage Project Roles task in the Setup and Maintenance work area to configure the project roles and individual participants that receive budget or forecast version creation and withdrawal notifications. Such notifications can include various descriptive flexfields.

When the project administrator or project manager creates a budget or forecast version and submits them for approval, the application sends notifications to all the participants that are configured to receive notifications.

The project administrator can configure the project roles and individual participants who receive notifications using the Manage Project Roles task in the Setup and Maintenance work area.

The submitted budget or forecast versions undergo a single level of approval. However, during implementation, you can define approval rules based on the following parameters:

- Total raw cost
- Total burdened cost
- Labor effort
- Equipment effort
- Margin percentage
- Margin

For example, set rules such as:

- If total burdened cost is less than or equal to $50,000, then the project administrator can approve budget versions.
- If total burdened cost is greater than $50,000, then the project manager must approve budget versions.

By default, the project manager can approve the budget or forecast versions. Additionally, a project administrator can configure which participants can approve the budget or forecast versions, depending on the business requirements.

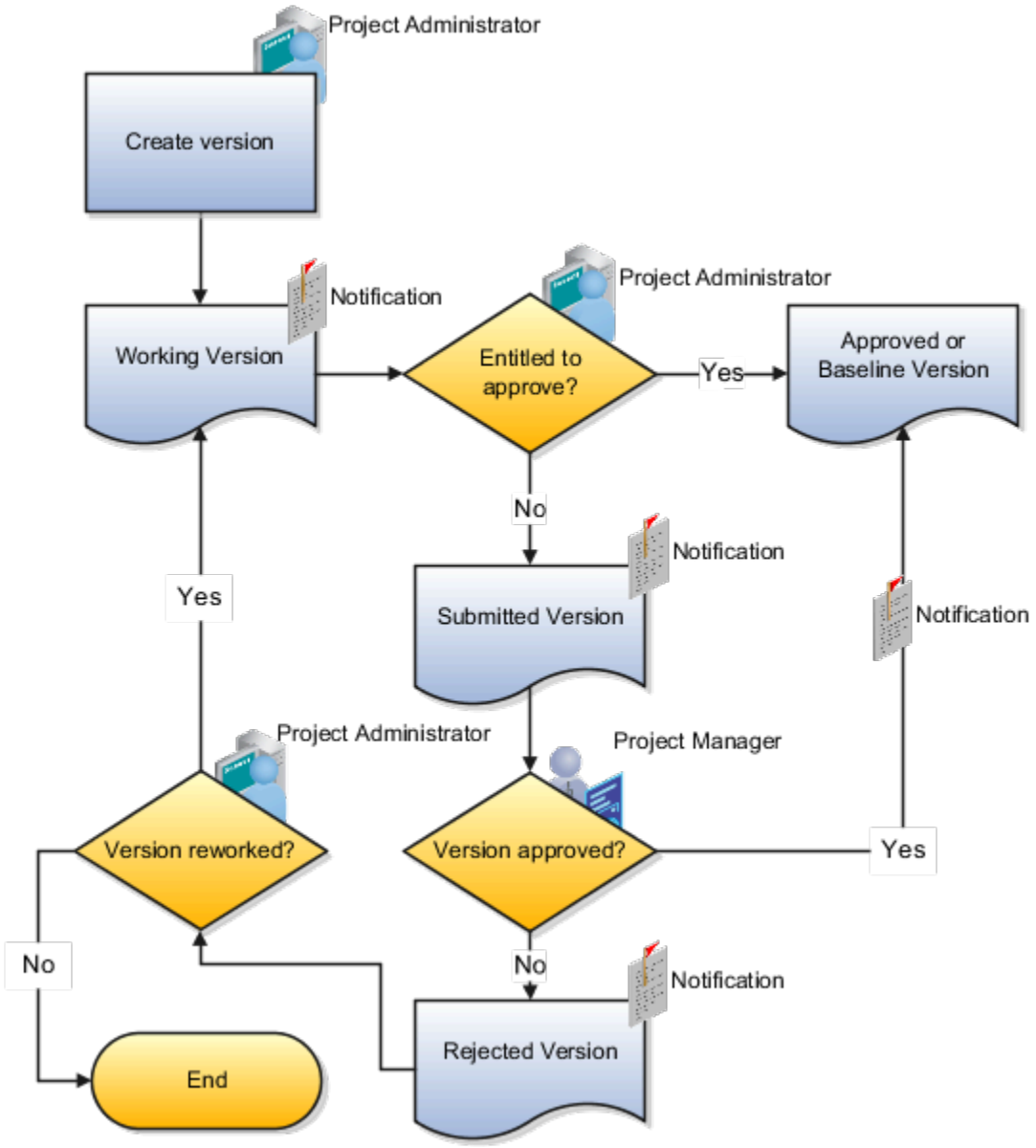
You can view the details of the pending approvals for the financial plans from the Manage Budget Versions or Manage Forecast Versions pages. You can also view the approval hierarchy and the actions pending or taken by the approver.

When the project administrator or project manager withdraws the notifications or the workflow results in errors, the application reverts the status of the budget or forecast versions to the previous status.

Understanding the Budget and Forecast Status Flow

The following table and figure describe the stages in the budget and forecast status flow.

Action Performed	Status	Notification Sent To	Action Required
Create version	Working	Creator (requester)	None.
Submit version	Submitted	Requester, approver, project roles, and participants	Approver can approve or reject version.
Approve version	Approved or Baseline	Requester, approver, project roles, and participants	None.
Reject version	Rejected	Requester, approver, project roles, and participants	None. Requester can optionally rework version.
Rework version	Working	Requester, approver, project roles, and participants	None.



Security Privileges for Budgets and Forecasts

Budget and forecast security is determined by a combination of project role, security roles (job and duty roles) and privileges, and workflow setup.

The following sections describe the privileges required to perform various steps in the budget creation, submission, and approval process. They also describe the impact of using workflow to manage status changes.

Note: The privileges and workflow setup for forecasting mirrors that for budgeting.

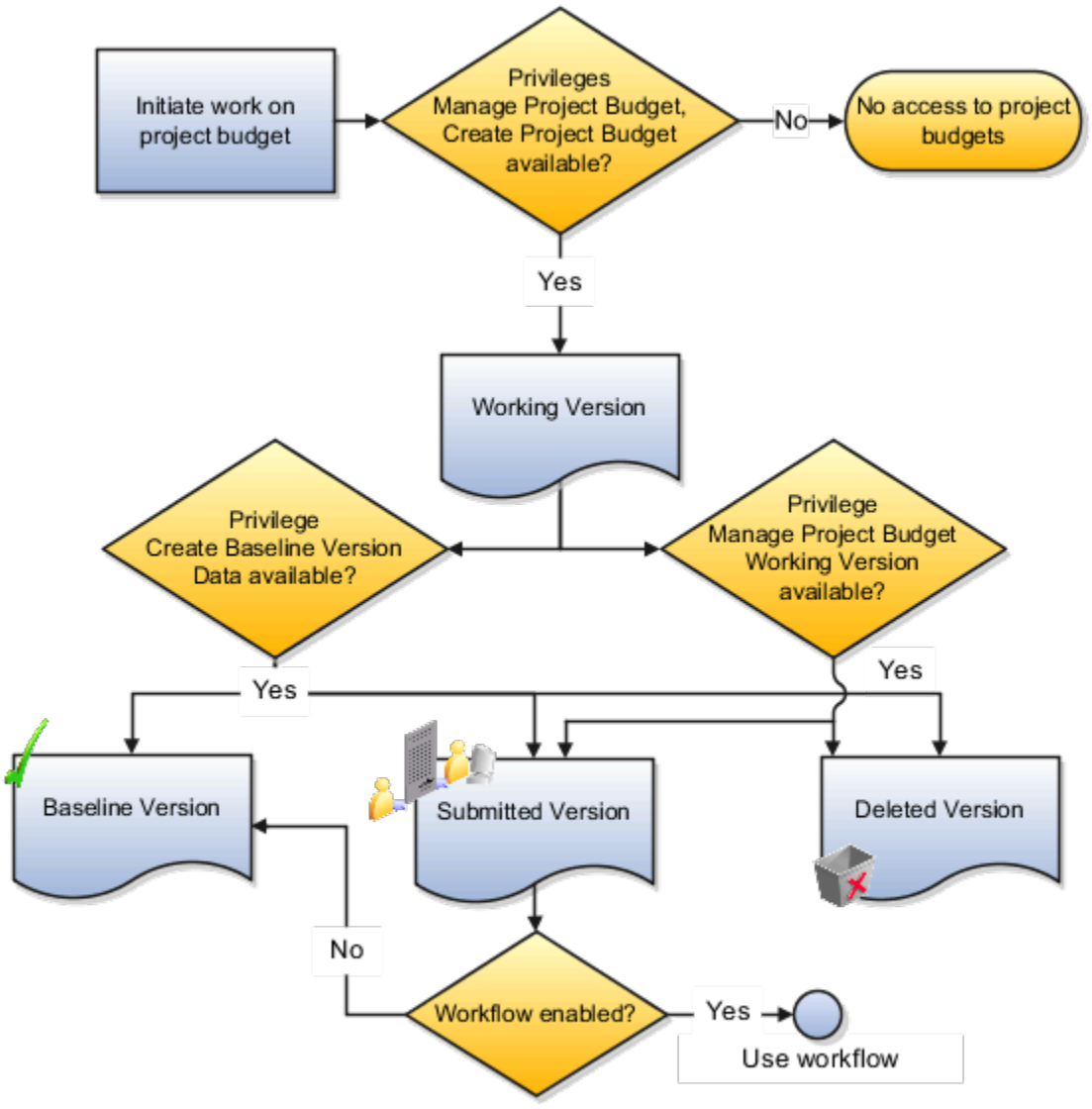
Creating and Submitting a Budget Version

The following table describes the access required to create and submit a budget version.

Step	Action	Privilege
1	Access budget versions for a project	Manage Project Budget
2	Create a budget version	Create Project Budget **Note:** The privilege required for editing budget versions in Excel is Manage Project Budget Excel Integration.
3	Submit working version	Manage Project Budget Working Version
4	Create baseline directly	Create Baseline Version Data **Note:** Project managers may select to create a baseline directly instead of submitting a version for approval first.

As a project application administrator, you can configure the financial plan approval rules to support integration with other Oracle cloud services. For example, you can add workflow rules to validate that the total budget amount doesn't exceed that of the strategic budget imported from the Enterprise Planning and Budgeting Cloud Service. The application auto-rejects the budget version if its total amount exceeds that of the Enterprise Planning and Budgeting Cloud Service (EPBCS) budget version with current baseline status.

This following figure describes the steps for creating and submitting a budget version for creation of a baseline.



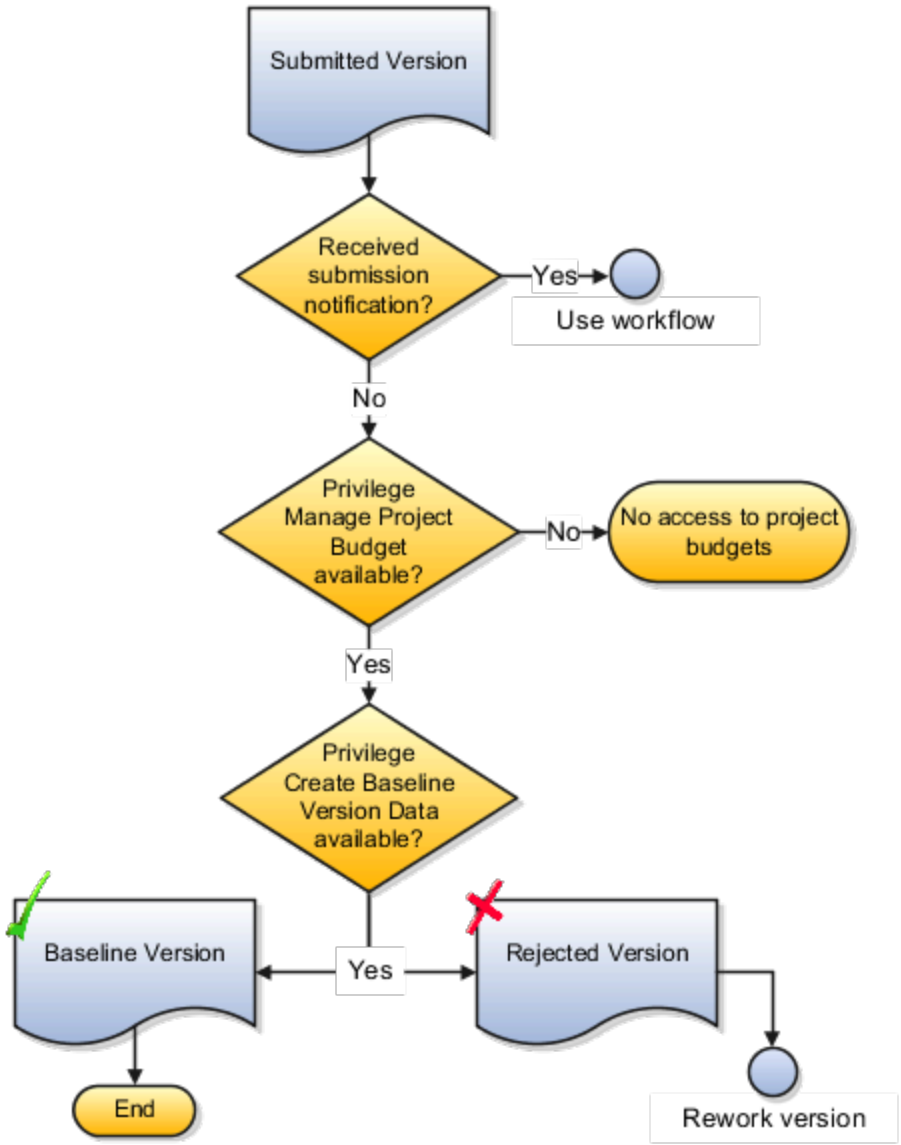
Creating a Baseline for a Budget Version

The following table describes the access required to create a baseline for a budget version or reject it.

Step	Action	Privilege
1	If using workflow, receive notification of budget submission	NA (Approver e-mail ID is entered manually by users)
2	Access budget versions for a project	Manage Project Budget

Step	Action	Privilege
3	Create baseline or reject budget	Create Baseline Version Data

This following figure describes the steps for creating a baseline for a budget version.

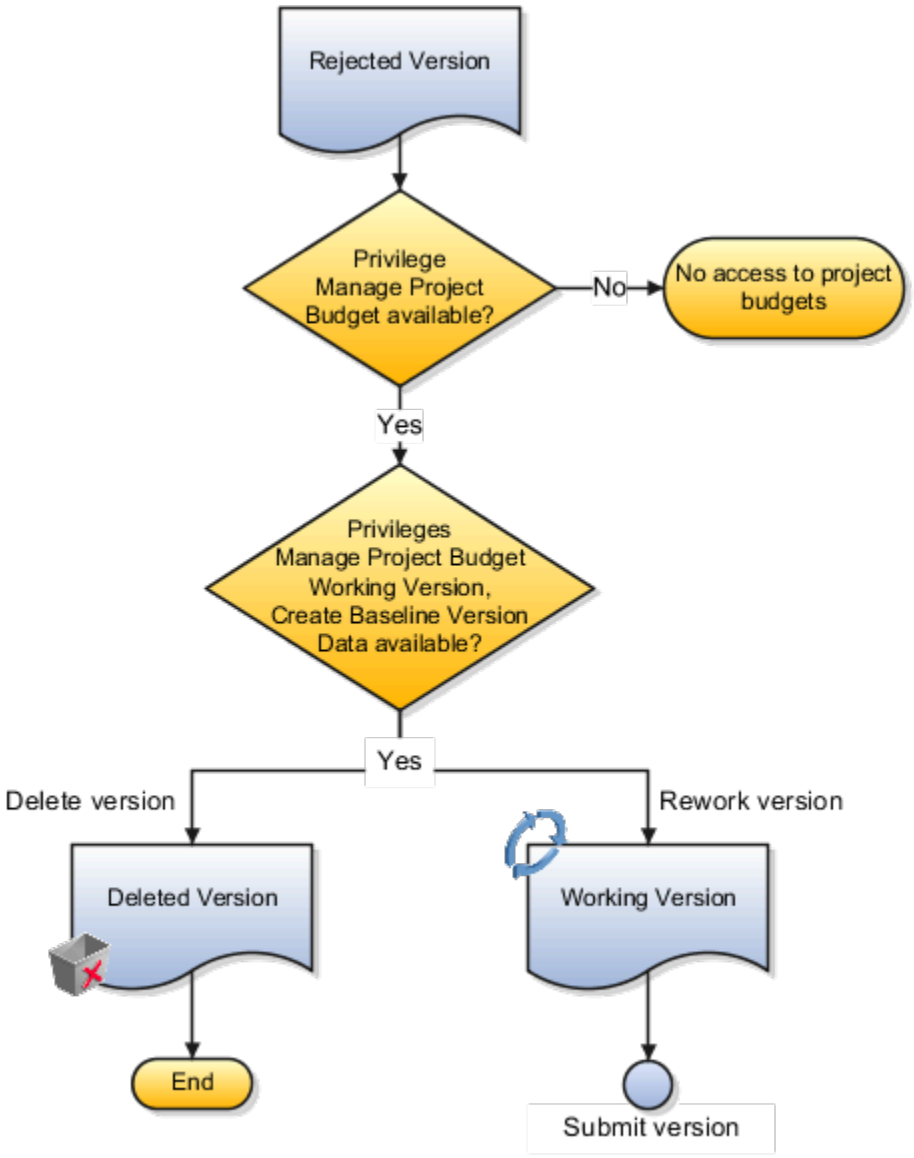


Reworking a Rejected Budget Version

The following table describes the access required to required to rework a rejected version (set it back to Working status) or delete it, if it's no longer required.

Step	Action	Privilege
1	Access budget versions for a project	Manage Project Budget
2	Rework working version	Manage Project Budget Working Version
3	Delete working version	Manage Project Budget Working Version

The following figure describes the steps for reworking a rejected budget version.



Related Topics

- Workflow of Budget and Forecast Approvals
- Project Roles in Budgeting and Forecasting

Options for Planning Amounts in Financial Plan Versions

For each financial plan type, you select the planning amounts included in the financial plan versions created using the plan type.

Options include the following:

- Cost amounts only
- Revenue amounts only
- Both cost and revenue amounts
- Either cost or revenue amounts

Planning for Cost Only or Revenue Only

If you select to plan only for cost or revenue, then all budget or forecast versions created for the financial plan type contain only those amounts.

When you review versions created for cost-only financial plan types, margin values and other comparisons dependent on revenue amounts aren't available. Similarly, cost amounts are unavailable during review of versions of revenue-only financial plan types.

Planning for Both Cost and Revenue

You can select to plan for cost and revenue together. In such a case, each budget or forecast version created for the financial plan type contains both cost and revenue amounts.

Planning for Either Cost or Revenue

If you select to plan for cost and revenue separately, then each budget or forecast version created for the financial plan type can contain either cost or revenue amounts. When you review cost versions, select any revenue version created for the same financial plan type as the source for revenue amount for use in plan comparison.

How Task Dates Work with Assignment Dates

Project application administrators can specify the task planned dates and task assignment date options when defining project planning options. These settings determine how planned and transaction dates are set for tasks and how dates are set for task assignments.

Want to see the settings? In the Setup and Maintenance work area, open the Manage Project Plan Types page in the Project Financial Management offering. Now, let's see what happens when you select or deselect the various settings.

> **Note:** You can also specify these task settings by navigating to the Manage Financial Project Settings page and then clicking **Planning**> **Edit** in the Project Plan Type section> **Task Settings**.

Use Task Planned Dates as Task Assignment Dates

When you select this option, task assignments last for the entire task duration. Let's say the project manager set the task duration from January 1 through May 31, and the task assignment is from February 1 through March 1. The task assignment now runs from January 1 until May 31.

If you don't select this option, the project manager can set the task assignment dates in the project and edit individual task dates.

Automatically Roll Up Task Planned Dates

When you select this check box on the Edit Project Plan Type page, task dates automatically roll up to project dates on the financial plan. On the Manage Financial Project Plan page, the project manager can edit the planned dates for the lowest level tasks. Planned dates at the summary and project levels are the earliest start date and last end date of the tasks.

To sync dates across the work plan and the financial project plan, perform any one of the following actions:

- Select the **Define Common Financial Task Dates Across Work and Financial Planning** check box. To select this check box, navigate to the Setup and Maintenance work area and search for the **Manage Project Management Implementation Options** task.
- Run the Update Financial Project Plan and Progress action on the Manage Project Plan page if the **Define Common Financial Task Dates Across Work and Financial Planning** check box isn't selected.

When the **Define Common Financial Task Dates Across Work and Financial Planning** check box isn't selected and the **Automatically roll up task planned dates** check box is selected, you can plan task dates outside of the project dates and run the Update Financial Project Plan and Progress action on the Manage Project Plan page to sync the dates on the financial plan.

Suppose that the project manager creates a project with dates between 1/1/23 and 8/25/23. On the Manage Project Plan page, the project manager then updates the finish date of a financial task to 8/31/23, which is a later date than the project finish date, and runs the Update Financial Project Plan and Progress action. The application updates the finish date as follows:

- Updates the planned finish date of the financial task to 8/31/23 and rolls up the project finish date as per the task finish date to 8/31/23 on the Manage Financial Project Plan page.
- Displays 8/31/23 as the finish date of the project on the Manage Financial Project Settings page.

Synchronize Task Transaction Dates with Planned Dates

When you select this option, planned dates and task transaction dates are synchronized. The transaction dates always match task planned dates, plus or minus the number of days specified as a date adjustment buffer.

Buffer Value	What Does It Mean?
Positive	The number of days before or after the planned start or finish dates, respectively, that a transaction can be charged to a task.
Negative	The number of days after or before the planned start or finish dates, respectively, that a transaction can be charged to a task.

Buffer Value	What Does It Mean?
	Note: With negative buffer, the transaction dates are always within the range of planned dates.

If you don't synchronize the dates, the project manager can edit the project, summary, and lowest-level transaction dates in the project. This table lists the available options for each task level.

Task Levels	Dates To Use
Lowest-level	Summary level-task dates as default transaction dates
Subtasks	Dates are within the transaction dates for the summary task
Transaction	Within the project date range

You can modify the date synchronization option until you charge transactions to a task. Let's see the implications of changing between options.

Change	What Happens?
Deselected to selected	Existing transaction dates are replaced with dates calculated based on task planned dates plus or minus the date adjustment buffer.
Selected to deselected	Existing transaction dates become editable and dates outside the project dates are cleared. New transaction tasks have blank dates.

Project Date Cascade Options

Use the Cascade Option drop-down list to determine whether your changes to project dates cascade to the tasks.

You can access the drop-down list either from the Basic Information region on the Edit Project Template page or the Edit Task Details window on the Manage Financial Project Plan page.

The Cascade Option drop-down list provides the following options. You must select the cascade option each time you change the project dates, as your selection isn't saved for future date changes.

- Don't cascade project date changes to tasks: This is the default option. This option allows to edit both the start and finish dates. However, you must ensure that:
  - The project start date isn't later than the earliest task start date.
  - The project finish date isn't earlier than the latest task finish date.
- Cascade project start date change to affected tasks: Allows to edit only the project start date.

- Cascade project finish date change to affected tasks: Allows to edit only the project finish date.

If you're rolling up planned dates for tasks or are using an external application for scheduling, then you can't modify the project start or finish dates.

Cascading Changes to Transaction Dates

If you're synchronizing transaction dates with planned dates, then transaction dates are updated automatically when date changes cascade to tasks. If transactions are already charged to a task, ensure that the existing transaction dates on the task lie within the new transaction dates.

Cascading Changes to Assignment Dates

If you're synchronizing task assignment dates with task dates, then your changes to project dates will cascade to assignments automatically. Otherwise, you must ensure that all task assignment dates are within the range of the new task dates.

19 Project Control Configuration: Import Processes from Third-Party Applications

Import Financial Project Plans

Import financial project plans from third-party applications into the Oracle Project Control work area by using the Import Financial Project Plans Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

For more information about the Import Financial Project Plans Excel workbook template or to download this template, see the File-Based Data Import (FBDI) for Project Management guide.

To import the financial project plans:

1. Prepare your data in the ImportFinancialProjectPlans macro-enabled Excel workbook template.
2. Click Generate CSV File in the template to create a comma-separated values file of awards.
3. Navigate to the Scheduled Processes page.
4. Submit the Load Interface File for Import process to load the financial plans data from your CSV file into the applications related open interface tables.
5. Submit the Import Financial Project Plans process to bring the data into the Project Control work area from the open interface tables.

Parameters for Load Interface File for Import Process

From Project Name

Beginning project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing financial project plans versions.

To Project Name

Ending project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing financial project plans versions.

Financial Project Plans Upload Error Report

Review the output reports and repeat the following steps until you import all the required financial project plans data successfully:

- Correct the errors in the Import Financial Project Plans Rejections report.
- Generate CSV files for the corrected financial project plans.
- Upload the CSV files into the open interface tables.
- Submit the Import Financial Project Plans process.

Related Topics

Import Project Budgets

Import project budgets from third-party applications into the Oracle Project Control work area by using the Import Project Budgets Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

> **Note:** For more information about the Import Project Budgets Excel workbook template or to download this template, see the File-Based Data Import (FBDI) for Project Management guide.

You can also update a project budget using the Import Project Budgets file-based data import process. For example, to adjust the budget in anticipation of cost overruns, enter **Update** as the processing mode and enter the plan line details including the **Plan Version Number** and the new amounts in the respective columns.

> **Note:** Only periodic and line-level updates are supported. You can't perform version-level updates, such as modifying the version name.

To import the project budgets:

1. Prepare your data in the ImportProjectBudgets macro-enabled Excel workbook template.
2. Click Generate CSV File in the template to create a comma-separated values file of awards.
3. Navigate to the Scheduled Processes page.
4. Submit the Load Interface File for Import process to load the budgets data from your CSV file into the applications related open interface tables.
5. Submit the Import Project Budgets process to bring the data into the Project Control work area from the open interface tables.

Parameters for Load Interface File for Import Process

From Project Name

Beginning project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing project budget versions.

To Project Name

Ending project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing project budget versions.

Project Budgets Upload Error Report

Review the output reports and repeat the following steps until you import all the required budgets data successfully:

- Correct the errors in the Import Project Budgets Rejections report.
- Generate CSV files for the corrected budgets.
- Upload the CSV files into the open interface tables.
- Submit the Import Project Budgets process.

Related Topics

Import Project Forecasts

Import project forecasts from third-party applications into the Oracle Project Control work area by using the Import Project Forecasts Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

> **Note:** For more information about the Import Project Forecasts Excel workbook template or to download this template, see the File-Based Data Import (FBDI) for Project Management guide.

You can also update a project forecast using the Import Project Forecasts file-based data import process. For example, to adjust the forecast in anticipation of cost overruns, enter **Update** as the processing mode and enter the plan line details including the **Plan Version Number** and the new amounts in the respective columns. Note that the amounts entered during update are considered as the Estimate at Completion (EAC) amounts.

> **Note:** Only periodic and line-level updates are supported. You can't perform version-level updates, such as modifying the version name.

To import the project forecasts:

1. Prepare your data in the ImportProjectForecasts macro-enabled Excel workbook template.
2. Click Generate CSV File in the template to create a comma-separated values file of awards.
3. Navigate to the Scheduled Processes page.
4. Submit the Load Interface File for Import process to load the forecasts data from your CSV file into the applications related open interface tables.
5. Submit the Import Project Forecasts process to bring the data into the Project Control work area from the open interface tables.

Parameters for Load Interface File for Import Process

From Project Name

Beginning project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing project forecast versions.

To Project Name

Ending project name in a range of projects, from the PJO_PLAN_VERSIONS_XFACE table, provided for importing project forecast versions.

Project Forecasts Upload Error Report

Review the output reports and repeat the following steps until you import all the required forecasts data successfully:

- Correct the errors in the Import Project Forecasts Rejections report.
- Generate CSV files for the corrected forecasts.
- Upload the CSV files into the open interface tables.

- Submit the Import Project Forecasts process.

Related Topics

20 Project Integrations

How Microsoft Project Works with Project Financial Management

Microsoft Project integration enables project managers to create projects, complete in-depth scheduling using dependencies and constraints, and perform what-if analysis offline before synchronizing project plan and progress information with Project Financial Management applications.

Project executives, project accountants, and billing specialists can use the information exported to Project Financial Management applications for financial planning, project costing, billing and revenue accrual, and performance reporting.

The integration of Microsoft Project versions 2016, 2019, or 2021 for desktop with Project Financial Management applications provides scheduling along with support of manual tasks, inactive tasks, and free text. You can do the following:

- Import templates or existing projects from Project Financial Management applications to create projects in Microsoft Project.
- Export projects from Microsoft Project to create projects in Project Financial Management applications.
- Synchronize existing projects with Project Financial Management applications.

  > **Note:** If Oracle Fusion Cloud Project Management offering is implemented, the synchronization option isn't available.

- Import resources from the primary planning resource breakdown structure to use for creating task assignments in Microsoft Project.
- Plan and schedule projects, assign resources, and track progress.
- Import planned quantities and costs into Microsoft Project for progress collection.
- Export project plan and progress information to Project Financial Management applications.
- Export and synchronize milestones between Microsoft Project and Project Financial Management.

Installing the Microsoft Project Integration Client

A project manager or project administrator can download and install the integration clients available for different versions of Microsoft Project to integrate with Project Management or Project Financial Management applications.

Before downloading the client, ensure that you have .NET Framework 4.5.2 or later versions installed on your computer. Contact your Help Desk to find the existing .NET Framework version and steps to upgrade it, if needed.

> **Note:** You can only have one integration client, for either Project Management or Project Financial Management applications, on your desktop. To switch between different clients, you must uninstall the existing client and install the other client.

To install the Microsoft Project Integration client for Project Financial Management applications:

1. Navigate to Project Financial Management.
2. From the My Projects page, open the Actions panel tab and select Install Microsoft Project Integration to download the required client.
3. Save the client, extract the installation files to a local folder, and run the installation file from that folder.
4. Open the Microsoft Project application.
5. From the Oracle Fusion Projects menu, select **Change Environment** and enter the URL for Oracle Fusion Applications.

   You can change the environment URL at any time to support subsequent server changes.

Importing Projects

You can import a template or an existing project from Project Financial Management applications to create a new project file in Microsoft Project. During import, select to import all project information or only planning resources. If you want to subsequently export new task assignments for the project to Project Financial Management applications, you must import resources from the primary planning resource breakdown structure.

While importing templates from Project Financial Management applications, you can't select a template that allows changes to the primary planning resource breakdown structure at the project level. This restriction doesn't apply when importing projects.

When importing an existing project, retain the link if you intend to synchronize the project. If you only want to view project details, or intend to export the project to Project Financial Management applications as a different project later, then don't retain the project link. The retain link isn't available if Oracle Fusion Cloud Project Management is implemented and you can't retain the project link if third-party scheduling is disabled for the project.

Importing Resources and Rates

You can import all planning resources from the primary planning resource breakdown structure associated with the project in Project Financial Management applications or import selected resources only.

Import rates from Project Financial Management applications to calculate planned costs in Microsoft Project. The **Cost Type** synchronization option determines whether raw cost rates or burdened cost rates are imported.

Before import, rates are derived for each resource based on the actual or planning rate schedules specified on the associated project plan type. Any override rates you specify on the project plan in Project Financial Management applications aren't imported.

Importing Actual Costs and Exporting Progress

You can import actual quantity and costs either from the latest summarized data or from draft progress. The source of actual amounts determines how progress is exported, as described in the following table.

Source of Actual Amounts	Impact on Exporting Progress
Latest summarized data	Actual amounts on the draft progress are refreshed from the latest summarized data when you export progress. You can specify the progress as-of date in the synchronization options.
Draft progress	Actual amounts on the draft progress aren't refreshed and hence, they match the actual amounts previously imported into Microsoft Project.

When you export progress from Microsoft Project, the estimate-to-complete (ETC) method and physical percent complete calculation method are set to Manual. Values for planned, actual, and estimated finish dates and physical percent complete are exported at each level in the task hierarchy and don't roll up in Project Financial Management applications. Values for all other attributes are transferred at the task assignment level and roll up in Project Financial Management applications.

After export, draft progress is published. A forecast version is generated depending on progress settings defined for the associated project plan type. You can export progress with raw cost if burdening isn't enabled on the project type. If burdening is enabled, then you must use burdened cost to export progress. To achieve this, set the **Cost Type** synchronization option to **Burdened cost**.

Exporting Projects from Microsoft Project

You can export a project from Microsoft Project to create a new project in Project Financial Management applications. Exporting links the projects in the two applications. Optionally, set a baseline for the project plan, and simultaneously generate a budget version and create a baseline.

> **Note:** When creating a new project, the financial plan type field shows the budgetary control enabled financial plan types only if the source project or template is enabled for budgetary control.

When exporting a project, you must select a source project or template unless you had originally imported a project or template from Project Financial Management applications. The source project or template must allow for third-party scheduling and the associated primary planning resource breakdown structure must not allow changes at the project level.

When exporting projects to Project Financial Management applications, Microsoft Project 2010 or later versions export the tasks based on various conditions as given in the following table.

Tasks	Condition
Inactive tasks	Doesn't export.
Manual tasks	Exports only if the manual tasks have valid dates and duration.
Manual summary tasks	Exports only if the schedule mode of all summary tasks is automatic. This is because the roll up doesn't happen in Project Financial Management applications.

Synchronizing Project Information

Use synchronization rules to transfer information from and to Microsoft Project. Select the required synchronization rule to synchronize all information, or import or export selected information only. For example, you can select to synchronize only schedule updates for the project. Depending on the synchronization rule, select synchronization options to determine how you transfer information. Also, ensure that you save the changes in Microsoft Project after synchronizing projects to avoid losing your data.

The following table describes the default direction in which attributes are transferred.

Attributes	Imported into Microsoft Project	Exported from Microsoft Project
Task structure	Yes	Yes
Resources and resource rates	Yes	No
Task attributes	Yes	Yes
Actual quantities and costs	Yes	No
Scheduling and progress	No	Yes

Note: While importing or exporting projects, if you use a screen reader application, ensure that the focus is on the Transfer Report to read the details after your project transfer.

Import Options while Synchronizing Projects

Microsoft Project schedules tasks differently from Project Financial Management applications. For example, Microsoft Project considers resource availability and tasks dependencies while Project Financial Management applications don't.

Microsoft Project uses three key attributes to schedule tasks: work, dates, and units. A change to one attribute must be offset by a change to one of the other two attributes. Because Microsoft Projects schedules tasks differently, you can't import work and dates for new task assignments and still have the assignment units as 100%. When you import, you must select which of the three values you want Microsoft Project to calculate and the remaining two values are imported.

For example, assume you import a new task assignment with the following attributes:

- Work: 16 hours
- Start date: 03-AUG-15
- Finish date: 03-AUG-15

You can import the new task assignments as explained in the following table based on the option selected during synchronization.

Option	Example Calculation
Calculate Dates	With the start date as 03-Aug-15, the work as 16 hours, and the units as 100%, Microsoft Project calculates the finish date as 04-Aug-15.
Calculate Work	With the start date as 03-Aug-15, the finish date as 03-Aug-15, and the units as 100%, Microsoft Project calculates the work as 8 hours.
Calculate Units in Microsoft Project 2007 or Peak in Microsoft Project 2010 and later versions	With the start date as 03-Aug-15, the finish date as 03-Aug-15, and the work as 16 hours, Microsoft Project calculates the units or Peak as 200%.

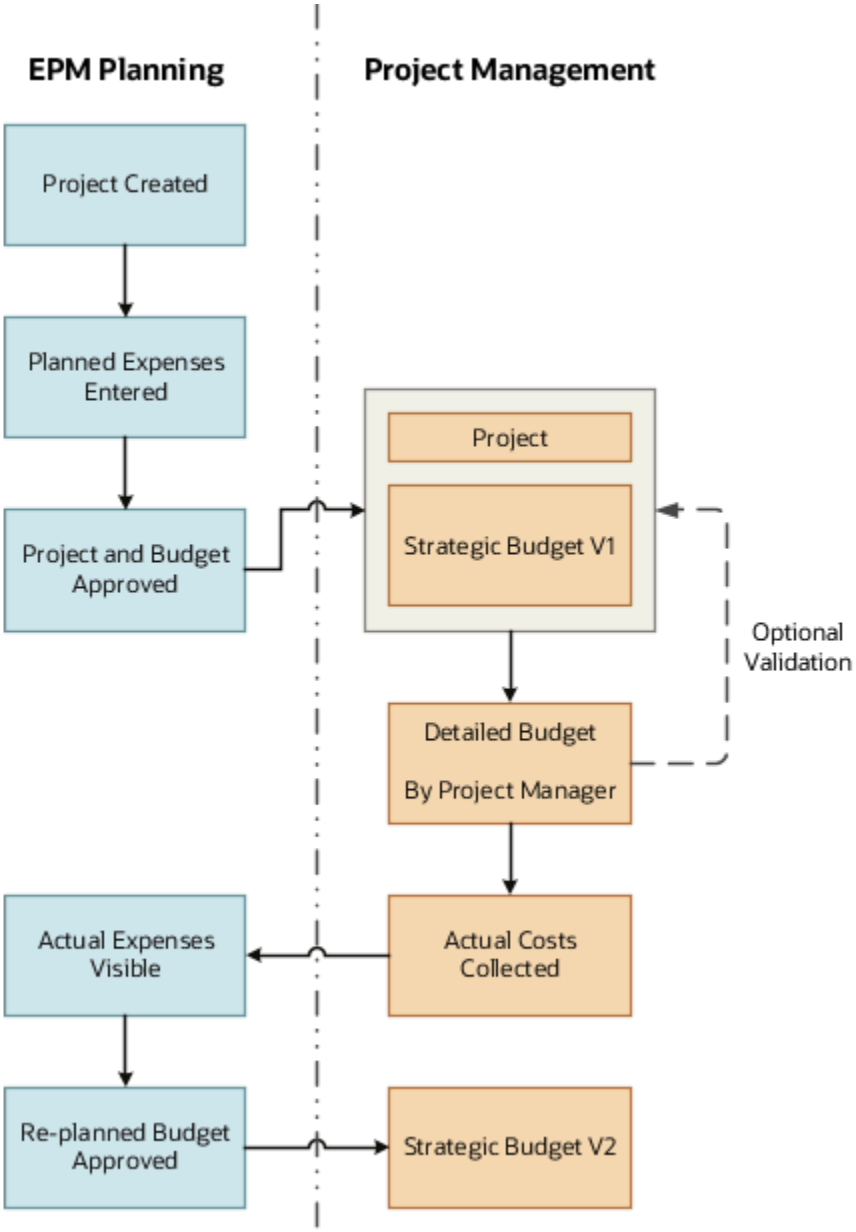
Related Topics

How Enterprise Performance Management Works with Project Management

You can integrate Enterprise Performance Management (EPM Planning) and Project Management to perform organizational planning and budgeting and to execute projects. With this integration, you can manage projects without any delays, duplication of effort, or manual budget validation.

Here's how the integration handles the projects.

- Transfer approved project and budgets created in EPM Planning to Project Management.
- Create detailed budget in Project Management.
- Optionally use the budget approval process to validate the detailed budgets in Project Management against the strategic budgets created in EPM Planning.
- Use actual cost amounts from Project Management in EPM Planning.
- Portfolio manager then analyzes the budget against the actual costs in EPM Planning. Sends re-planned budgets from EPM Planning to Project Management, in another budget version, at the resource class level.



Integration Settings

You use Data Integration and Data Migration to drive the data between the two products. Data Integration enables you to set up and run the initialization process, and then apply predefined mappings from the Project Management data model to target dimensions in the EPM Planning Projects module.

Following are the details required from Project Management for the integration.

- Setup Connection between EPM Planning and Project Management in Data Management. You must enable the EPM Planning and the integration options along with Project Management Cloud Integration, Project Reporting, and Expense.

- Add a Smart List entry in EPM Planning for each project template in Project Management you want to associate with projects in EPM Planning. Get the list of project template through the Export Project Templates Report. The report helps to classify the project as indirect or capital.
- Edit entity hierarchy in EPM Planning to include all project owning organizations from Project Management. The Export Project Owning Organizations Report provides the project owning organization details.
- Financial plan types in Project Management determine how budgets are calculated. You must associate a financial plan type used in Project Management with EPM Planning when interfacing budgets.

Integration Considerations

To export a project and project budget from EPM Planning to Project Management, the project status in EPM Planning must be Approved and the project integration status must be Initial (not yet sent to Project Management) or Ready (already sent to Project Management and can be sent again in case of changes).

Integration supports only:

- EPM Planning applications that have Hybrid Essbase enabled.
- EPM Planning applications that use a 12 month calendar.
- Indirect and Capital projects in EPM Planning.
- Indirect, capital, and nonsponsored projects in Project Management. Integration doesn't support contract projects and Grants.
- EPM Planning cubes; there is no support for custom cubes.
- Accounting Calendar of 12 periods which includes period of 4-4-5, 5-4-4, and 4-5-4 in Project Management. The 4-4-4 Accounting Calendar isn't supported.
- Planned expenses and actual costs at the resource class level, for example, labor, equipment, material, and other resources.
- Actual costs and not committed cost.

Note: If you have already implemented both EPM Planning and Project Management, and have either built a custom integration or used the application independently of each other, you must reconcile the projects as a prerequisite before using this integration. For more information on how to set up and execute the integration of EPM Planning and Project Management, see *Unified Planning Budgeting Execution and Analysis of Projects*.

Related Topics

21 Project Costing Configuration: General Costing Setup

Overview of Project Costing Configuration

This table lists setup tasks for Oracle Fusion Project Costing, grouping them into task lists. These tasks include setup configurations for descriptive PPM flexfields and profile options, project cost capitalization options, project cost distribution across organizations, and options to integrate Costing with other Oracle applications.

Task List Name	Description
Define General Costing Setup	Configure transaction sources, documents, profile options, and descriptive flexfields related to Oracle Fusion Project Costing functionality. For more information, see *Define an Additional Segment in the Cost Collection Flexfield* in the Getting Started with Your Project Management Implementation guide.
Define Capital Projects	Configure options used to capitalize project costs and place assets in service.
Define Borrowed and Lent Accounting	Configure borrowed and lent accounting to distribute project costs across organizations.
Define Project Costing Integrations	Configure options used to integrate Oracle Fusion Project Costing with other Oracle Fusion applications.

This chapter provides detailed setup steps for defining an additional segment for the cost collection flexfield.

See the Implementing Subledger Accounting guide for more details.

Related Topics

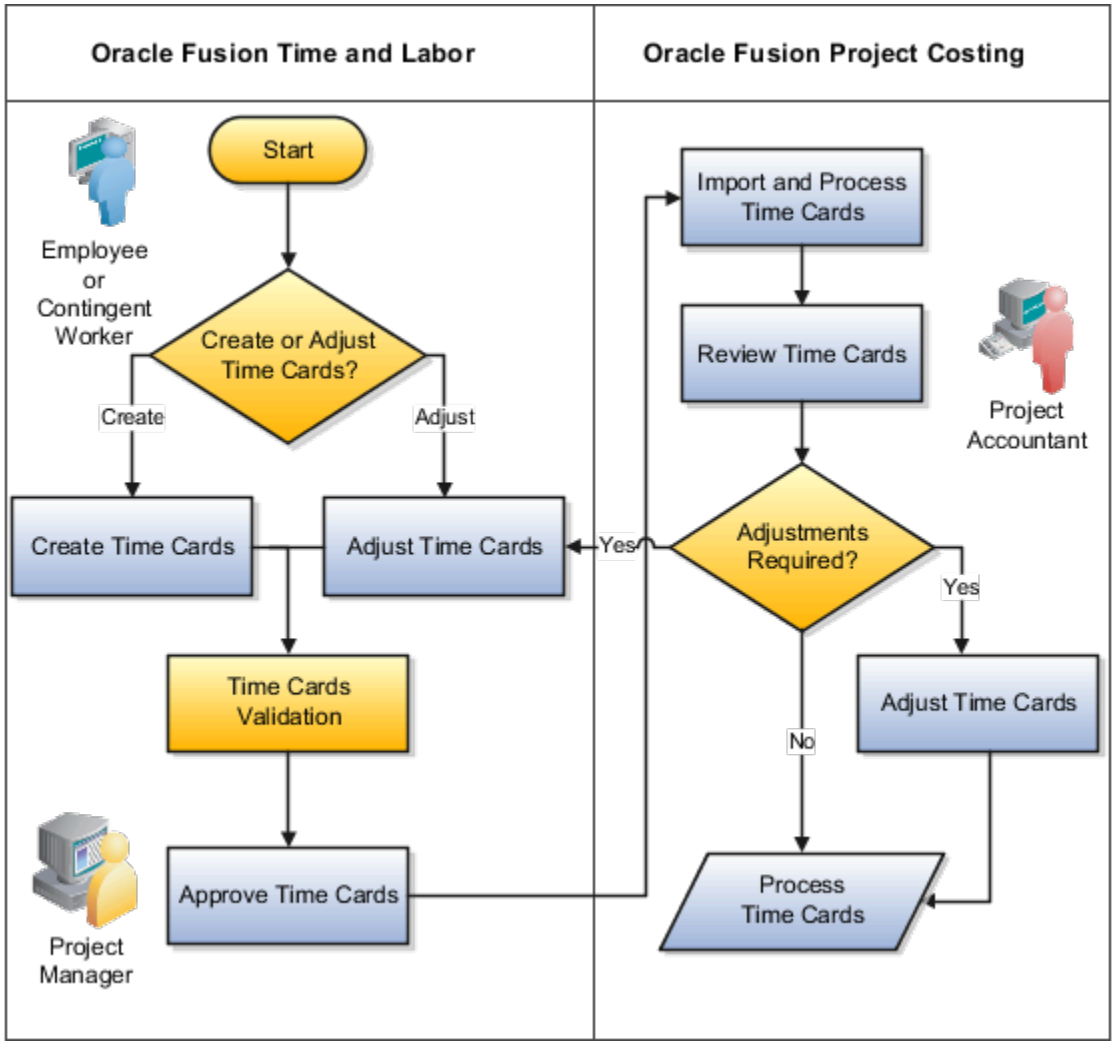
How Time and Labor Works with Project Costing

The integration between Time and Labor and Project Costing allows project managers and accountants to manage time cards for employees and contingent workers.

Employees and contingent workers can view and update the time cards that they create. Based on the setup, a time card either displays all projects in the time reporter's business unit or only those projects on which the time reporter is a team member.

Project managers review and approve time card entries created for their projects. Project accountants import the time cards into Project Costing for costing, accounting, analysis (including reviewing actual effort against planned effort), and potentially billing.

The following figure provides an overview of how time cards are created and approved in Time and Labor. It also illustrates how approved time cards are validated and imported into Project Costing. Once these costs are imported, project accountants can adjust them if required.



Using Time and Labor

Employees and contingent workers report project-related time in the Time work area. They account for their worked hours by selecting one or more projects, tasks, and expenditure types. Project managers approve the time cards submitted for their projects.

Here are a few considerations that you must keep in mind while entering time card details:

- The application validates time cards before allowing the user to submit them. It then sends submitted time cards to project managers for approval.
- Your organization may have opted to validate time cards once you save them instead of only upon submission.
- When the Project time card field filters projects based on team membership, then only those projects on which the time reporter has been assigned as a team member will appear.

Using Project Costing

Project accountants use the Import Costs process to validate and import approved time cards into Project Costing.

To import time cards into Project Costing:

1. Navigate to Projects > Costs and click **Import Costs** in the Process section of the tasks drawer.

   The Import Costs page appears.
2. Click **Process Options** to manage options associated with project cost related details, such as language, territory, number, time, and date format, and currency.
3. Select **Notify me when this process ends** to be notified once the import process completes, regardless of whether the process succeeded.
4. Provide additional information associated with the import process in the **Submission Notes** field.
5. Select the **Business Unit** associated with the costs that you want to import.
6. Leave the **Process Mode** as **Importing and Processing Transactions** and the **Transaction Status** as **Not previously imported**.
7. Select **Oracle Fusion Time and Labor** as the **Transaction Source**.
8. Optionally, select **Time Card** in the **Document** field.
9. Optionally, search and select the **Expenditure Batch** that you want to use to import time cards.
10. Enter the **From Project Number** and **To Project Number** values if you want to transfer these time cards from one project to another.
11. Use the **Process Through Expenditure Item Date** field to specify the expenditure item date up to which time cards must be imported, if required.
12. The process generates a summary report by default. Click the **Generate Report** drop-down list to specify whether you want to see a detailed report, or whether you don't want to see any report at all.
13. Click the **Advanced** button at the top of the field-set to specify scheduling and notification details. Review the sections below for guidance on working with these.
14. Once you're ready to submit your import job, click **Submit**.

Scheduling Project Cost Import

To schedule a process cost import job:

1. Click the **Advanced** button at the top of the field-set.

   The Schedule and Notification tabs appear.
2. Click the **Schedule** tab.
3. The default setting is to run the import process as soon as possible. To change this setting, select the **Run > Using a schedule** radio button.

   The field-set expands to display additional scheduling options.
4. Click the **Frequency** drop-down list to select the frequency with which the import operation must be run. Update the values in the additional frequency-related fields that appear based on your selection.

Specifying Notification Details

Use the Notification tab to enter details associated with the notifications that you want sent when the import succeeds, or when there are warnings or errors generated.

Importing Costs: Considerations

- Validations ensure that the project is valid, active, and supports transaction charges. The process also validates the following attributes.
  - Business unit
  - Transaction source information
  - Expenditure type and organization
  - Expenditure item date
  - Person
  - Worked hours
  - Project role
  - Contract number
  - Funding source
- All time entries on a time card must be approved before the time card can be imported.

Certain expenditure item attributes are derived during import. The following table describes the derivation rules for the expenditure item attributes derived during import.

Attribute	Derivation
Expenditure end date	Calculated from expenditure item date and business unit.
Expenditure batch end date	Set to the latest expenditure end date in the batch.
Work type	Derived from task details if the work type isn't entered on the time card.

Adjusting Time Cards

Employees and contingent workers can't modify their time cards in Project Costing. However, they can modify their time cards in the Time work area. For example, they can delete time cards for their projects or adjust time card details such as project, task, hours, or expenditure type.

Project accountants and project managers can adjust time cards in Project Costing using the following adjustments after importing them. You can make most of these adjustments using the Project Costing application interface; a few of these adjustments, however, can only be made using the **Adjust Project Costs** REST API.

Here's a table that lists out some of the key attributes that are frequently adjusted and explains how you can make these adjustments.

Time Card Attribute	Using the Projects > Costs > Manage Project Costs Page	Using the Projects > Project Management > Manage Project Costs Page	Using the Adjust Project Costs REST API
Project, Task, or Both	Use the **Transfer** or **Split and Transfer** adjustment action.	N/A	Use the **Transfer** adjustment type.

Time Card Attribute	Using the Projects > Costs > Manage Project Costs Page	Using the Projects > Project Management > Manage Project Costs Page	Using the Adjust Project Costs REST API
Expenditure Type	N/A	N/A	Use the **Transfer** adjustment type.
Quantity	You can't update the quantity attribute directly, but you can perform a **Split** adjustment.	N/A	Use the **Split** adjustment type.
Billable Indicator	Use the **Set to Billable** or **Set to Nonbillable** adjustment action.	Use the **Set to Billable** or **Set to Nonbillable** buttons.	Use the **Set to billable** or **Set to nonbillable** adjustment type.
Capitalizable	Use the **Set to Capitalizable** or **Set to Noncapitalizable** adjustment action.	N/A	Use the **Set to capitalizable** or **Set to noncapitalizable** adjustment type.
Utilization	Use the **Change Work Type** adjustment action.	N/A	N/A
Project Role	N/A	N/A	Use the **Transfer** adjustment type.
Contract Number	N/A	N/A	Use the **Transfer** adjustment type.
Funding Source	N/A	N/A	Use the **Transfer** adjustment type.

Note:

- Adjustments made in Project Costing are reversed if the time card is modified in Time and Labor and reimported.
- Adjust time cards in Time and Labor and then import them to Project Costing instead of performing adjustments in Project Costing. This ensures that the latest time card information is present in Time and Labor.

Importing Person-Related Project Cost Transaction Reversals

Time managers can delete time cards in Oracle Fusion Cloud Time and Labor for persons who no longer have active HCM assignments. This results in reversals for the original transactions already imported into Project Costing. For example, if employees or contractors leave the organization and no longer have an active status in Oracle Fusion Cloud Human Resources, time managers can delete their time cards in Oracle Time and Labor and import these deletions as reversals in Project Costing.

Project Accountants can also perform transfers, splits, and other adjustments on transactions originating from Oracle Time and Labor even though the corresponding Oracle Human Resources assignment is no longer active.

Project Transaction Sources

Transaction Sources

Transaction sources identify the source of transactions that you import into Oracle Fusion Project Costing. You control transaction import and processing by specifying transaction source, document, and document entry options.

Project Transaction Sources, Documents, and Document Entries

- Transaction sources represent source applications (such as Oracle Payables or PeopleSoft Payroll) or channels (such as external time entry systems) from which Oracle Projects can accept project cost transactions.
- Documents represent transactions (such as expense reports or interproject invoices) that emanate from a transaction source, and can be imported into Project Costing.
- Document entries in a transaction source document are associated with expenditure type classes. This association ensures that Project Costing knows how to work with that transaction. For example, a document entry of expenditure type class of Straight Time identifies that cost as labor-related. This means that the cost must be associated with a person.

Thus, each transaction source can have multiple documents, and each document can have multiple document entries. For more information, see *How Source, Document, and Document Entry Components Work Together*.

Transaction sources can be classified into two categories:

- Predefined sources
- Third-party application sources

Predefined Sources

Oracle Fusion Project Costing provides a set of predefined transaction sources that you can use to import transactions from other Oracle Fusion applications. The following table lists these predefined sources and their associated documents.

Predefined Source	Document
Oracle Fusion Payables	• Supplier invoice • Expense report • Intercompany invoice • Interproject invoice • Payment
Oracle Fusion Projects	• Time card • Usage expenditure • Miscellaneous expenditure • Inventory expenditure

Predefined Source	Document
	• Burden expenditure • Summarized burden expenditure • Work-in-progress expenditure • Capitalized interest expenditure • Allocation expenditure
Oracle Fusion Cost Management	• Purchase receipt • Miscellaneous inventory
Oracle Fusion Purchasing	• Purchase requisition committed cost • Purchase order commitment cost
Oracle Fusion Time and Labor	Time card

Third-Party Application Sources

You can define additional transaction sources to import transactions from non-Oracle applications. For example, you can define the transaction source Payroll to identify expenditure items imported from an external payroll system. Similarly, you can create documents for a specific transaction source and document entries for a specific document.

Related Topics

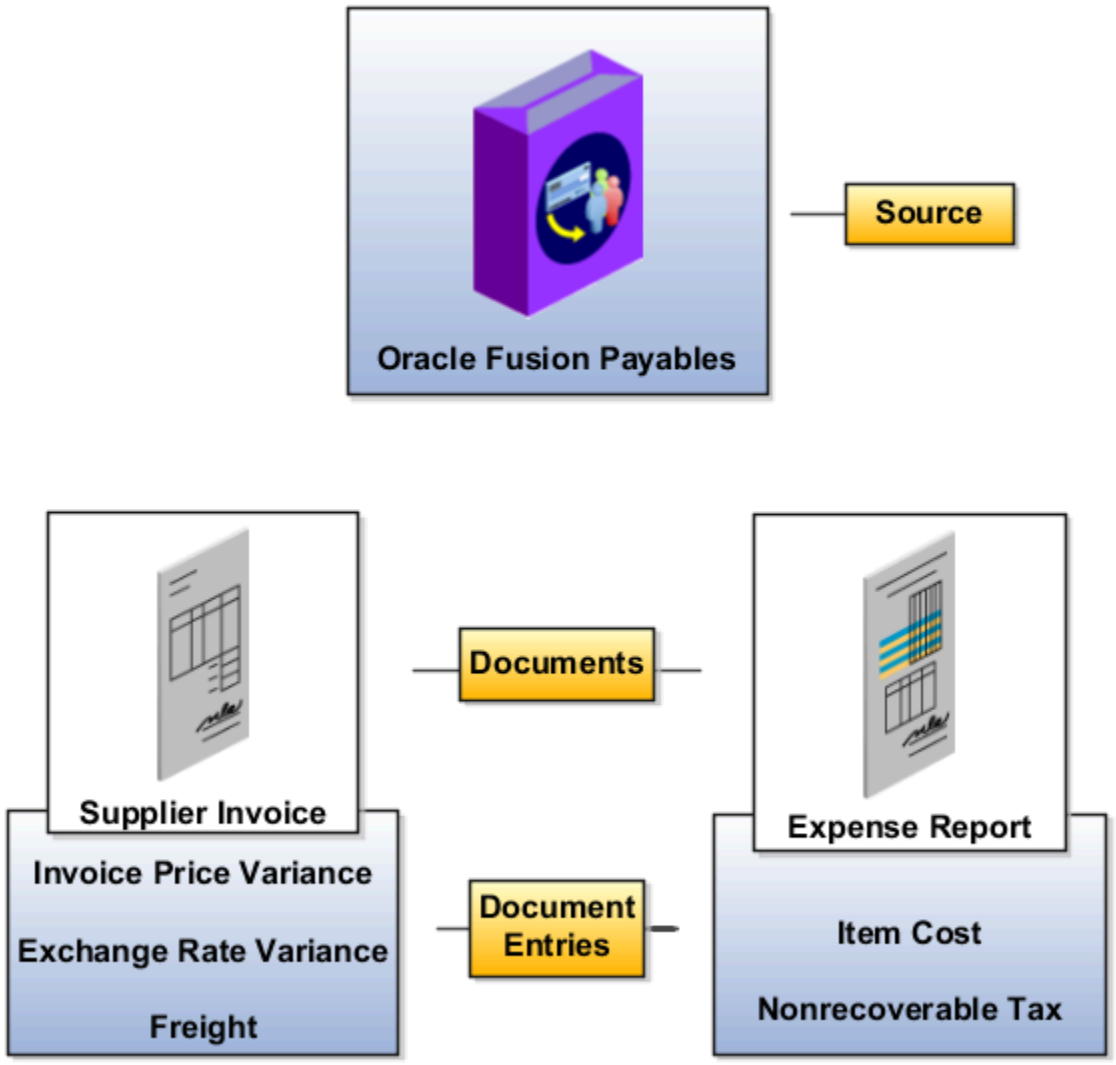
- How Source, Document, and Document Entry Components Work Together
- Can I delete transaction sources, documents, and document entries?

How Source, Document, and Document Entry Components Work Together

When you create a transaction source, you select the transaction source options to control the transaction import processing. Transaction source, document, and document entry definitions determine how the application handles validation, import, processing, adjustment, and accounting of project cost transactions.

The following figure provides an example of a transaction source called Oracle Fusion Payables, associated documents called Supplier Invoice and Expense Report, and their document entries

such as Invoice Price Variance, Exchange Rate Variance, Freight, Item Cost, and Nonrecoverable Tax.



Sources

At the transaction source level, you define the source and the processing set size. When transferring large number of transactions, you can reduce the impact of unexpected errors by processing transactions in sets. Define the set size by providing a value for the processing set size.

Documents

Documents represent the transactions that are imported to Oracle Fusion Project Costing. They are associated to a source. You specify the import and accounting options for transactions. Some of the options are interdependent.

- If the document entry is associated with the expenditure type class, Supplier Invoice or Expense Report, you cannot deselect the **Accounted in Source Application** and **Import raw cost amounts** options.
- If the document entry is associated with the expenditure type class, Burden Transactions, you cannot deselect the **Import raw cost amounts** or **Import burdened cost amounts** options.
- You can select the **Import burdened cost amounts** option only when the **Import raw cost amounts** option is selected.
- You can select the **Create raw cost accounting journal entries** option, if the **Accounted in Source Application** option is set to **No**.
- You cannot create a document for predefined transaction sources.

Document Entries

Document entries are a further breakdown of the document. They represent different types of transactions that come under a single, specific document. For the Burden Transactions expenditure type class, you specify the **Import raw cost amounts** and **Import burdened cost amounts** options at the document level; however, you cannot specify the **Allow adjustments** and **Allow reversals** options at the document entry level. Therefore, to allow adjustments and reversals, you either change the document options or select a different expenditure type class. You can define the following document entry options:

- **Allow modifications to unprocessed transactions**: After importing transactions from third-party application sources, you can edit the unprocessed transactions. You can also delete unprocessed transactions from third-party application and Oracle Fusion Projects sources.
- **Process cross-charge transactions**: You can allow cross-charge transactions processing.

Related Topics

- Transaction Sources
- Can I create documents and document entries for predefined transaction sources?
- Document and Document Entry Edit Options of Predefined and Third-Party Sources
- Transaction Document Import and Accounting Options

Transaction Source Options

Transaction sources identify the source of external transactions and determine how you import them into Project Financial Management. Consider the following aspects when you set up transaction sources:

- Transaction Source Options
- Document Options
- Document Entry Options
- Predefined Transaction Sources

Transaction Source Options

You specify the following option when setting up transaction sources.

Option	Description
Processing Set Size	Number of records processed in each set. When processing a large amount of data, reduce the impact of unexpected errors by processing transactions in sets. The import process saves information to the database after each set is complete. If an error occurs and a roll back is issued, only transactions in the current set are affected.

Document Options

You specify the following options when setting up transaction source documents.

Option	Description
Commitment Source	Identifies if the document is used for importing commitment transactions.
Commitment Type	Identifies type of the commitment transaction that you can import using the document. Possible values are: • Purchase order • Purchase requisition • Supplier invoice • Any other commitment transaction
Import Raw Cost Amounts	Imports transactions with the raw costs already calculated. The amount remains the same after you import the transaction. Designating an imported transaction as costed doesn't affect burdening or accounting. If Burden Transaction is the expenditure type class for one or more document entries, you can't disable the Import Raw Cost Amounts option for the document. If the Commitment Source option is activated, then the Import Raw Cost Amounts option is available, but not available for editing.
Import Burdened Cost Amounts	Imports burdened costs for transactions. If selected, transactions without a burdened cost amount are rejected. When you select this option, the Import Raw Cost Amounts option is automatically selected. If Burden Transaction is the expenditure type class for one or more document entries, you can't disable the Import Burden Amounts option for the document.
Allow Duplicate Reference	Allows the document to have multiple transactions with the same original application reference. If you select this option, then you can't uniquely identify the item by source, document, or original application reference.
Revalidate During Import	Select this option to revalidate cost transactions that you import from other Oracle Fusion applications. This option is available for all the documents for the following predefined sources: • Oracle Fusion Payables

Option	Description
	• Oracle Fusion Cost Management • Oracle Fusion Time and Labor For example, time cards are validated according to business rules when you create them in Oracle Fusion Time and Labor. However, when this option is enabled, these time cards are rejected during import if the project is closed.

You can't edit the following options for commitment document if you activate the Commitment Source option.

Option	Description
Allow Override of Person Organization	Allows the external application to provide an expenditure organization that is different from the owning organization of the person. If no expenditure organization is provided, the import process considers the owning organization of the person as the expenditure organization.
Reconcile with Source	Reconciles transactions between the document and the source application.
Archive After Import	Automatically archives successfully imported transactions when the import process completes.
Accounted in Source Application	Controls the accounts that are imported and the fields that are required from the transaction source application.
Create Raw Cost Accounting Journal Entries	Transfers cost accounting journals for the raw cost to the general ledger. Settings on the project type determine whether accounting journal entries for the burden cost and burdened cost are sent to the general ledger.
Create Adjustment Accounting Journal Entries	Transfers adjustments to the general ledger.

Document Entry Options

You specify the following option when setting up transaction source document entries.

Option	Description
Expenditure Type Class	Expenditure type class used for the document entry. If the document is a commitment document, then the expenditure type class is set to Supplier Invoice and you can't edit the expenditure type class.

You can't edit the following options if the document is a commitment document.

Option	Description
Allow Adjustments	Allows adjustments to imported transactions in Project Financial Management after import. If Burden Transaction is the expenditure type class, you can't disable the Allow Adjustments option.

Option	Description
Allow Reversals	Allow reversals of expenditure batches or expenditure items for the document entry. To manage reversals between the external application and Project Financial Management: • Create reversals in the external application. • Import the raw costs. This process creates reversal entries in Project Financial Management. If Burden Transaction is the expenditure type class, you can't select the Allow Reversals option.
Allow Modifications to Unprocessed Transactions	For transactions from third-party applications, allows deletion and edits to: • rejected transactions after the import process is completed. • pending transactions after they are loaded to the interface table and before the import process is submitted. For transactions from the Oracle Fusion Projects predefined source, allows deletion of rejected and pending transactions.
Process Cross-Charge Transactions	If you select this option for a document entry, Project Financial Management performs cross-charge processing for transactions that originate from the source, document, and document entry.

Predefined Transaction Sources

Project Financial Management provides a set of predefined transaction sources that you use to import transactions from other Oracle Fusion applications. In addition, Project Financial Management uses predefined transaction sources to import the following:

- Project allocations
- Capitalized interest transactions
- Summarized burden transactions generated internally

You can define additional transaction sources to import transactions from third-party applications. For example, you can define the transaction source Payroll to identify expenditure items imported from an external payroll application. You control the transaction import processing by the options that you select for each transaction source.

Predefined transaction sources exist for the following Oracle Fusion applications:

- Payables
- Cost Management
- Projects
- Purchasing
- Time and Labor

Transaction Document Import and Accounting Options

Specify import and accounting options in the transaction document to define how cost transactions emanating from this document must be imported and processed.

Transaction Import Options

Specify document import options to control how the application imports transactions that are associated with documents. Here's a table that lists out the import options available for each document.

Import Options	Description
Import raw cost amounts	Import raw cost amounts from transactions listed in a document.
Import burdened cost amounts	Import burdened cost amounts from transactions listed in a document.
Allow duplicate reference	Allow multiple transactions from a document to have the same original transaction reference value.
Allow override of person organization	Override the primary human resources assignment organization of the persons associated with the transactions in a document.
Revalidate during import	Revalidate cost transactions that you import from a document. This option is available for all the documents for the following predefined sources: • Oracle Payables • Oracle Cost Management • Oracle Time and Labor
Requires expenditure batch approval	Specify that the imported cost requires expenditure batch approval.
Allow transactions for inactive or suspended person assignments	Enables project accountants to import person-related cost transactions, such as time cards and expense reports, even when the person's associated HR assignment is no longer active. The **Allow transactions for inactive or suspended person assignments** document option, if enabled, takes precedence over the Allow Cost Transactions Until Certain Days After Person Termination (ORA_PJC_ALLOW_COSTS_UNTIL_DAYS_AFTER_PERS_TERM) administrator profile option, if you are using both. If the document option is not enabled, the administrator profile option is still evaluated if you've set a value for it. **Note:** Oracle Fusion Time and Labor doesn't transfer hours to Project Costing if they are reported on days after a person's termination date even if you allow transactions for inactive or suspended person assignments for the Oracle Fusion Time and Labor Time Card document.

Transaction Accounting Options

Accounting options that you define for documents impact how the application accounts transactions for that document. Here is a list of the accounting options for each document.

Accounting Options	Description
Accounted in source application	Select this option to specify that cost transactions must be accounted in the source application. That is, you must account for raw, burden, or burdened costs externally. If the raw cost, burden, or burdened cost is accounted in the source, then the respective general ledger accounts are required to import the transactions successfully.
Create raw cost accounting journal entries	Select this option to create raw cost accounting journal entries on transactions. This option is applicable only when the cost is not accounted in the source application.
Create adjustment accounting journal entries	Select this option to create adjustment accounting journal entries on transactions. You must select the **Create raw cost accounting journal entries** and **Create adjustment accounting journal entries** options if you plan to cross-charge or capitalize costs.
Import accounted cost when project periods are closed	Select this option to import accounted costs even when the project period is closed. Transactions accounted in Payables, Cost Management, or third-party applications that are accounted in the source system can skip import costs validations if the project period status is closed or close pending. However, you must account the applicable burden cost and accrued revenue in the next open period.

Related Topics

- How Source, Document, and Document Entry Components Work Together
- Document and Document Entry Edit Options of Predefined and Third-Party Sources
- HCM Assignment Status Validations When Importing Person-Related Costs

FAQs for Project Transaction Sources

Can I assign a document to multiple sources?

You can have a document with the same name in multiple sources but you can't share documents across sources.

For example, a corporation with multiple time capture systems can associate a time card document with Oracle Fusion Project Financial Management and a non-Oracle application as sources. The rules on how these transactions are treated differ based on how they're processed in the source applications.

Can I create documents and document entries for predefined transaction sources?

No. You can create documents and document entries only for third-party transaction sources.

Can I delete transaction sources, documents, and document entries?

You can delete third-party transaction sources, documents, and document entries only if no cost transactions exist for them. However, you can't delete the predefined transaction sources, documents, or document entries.

Can I allow adjustments and reversals for all transactions in a document entry?

No. You decide whether to allow transaction adjustments and reversals for each document entry that you create during implementation.

However, you can't define document entries to allow adjustments and reversals for transactions that are generated by the application, such as allocation transactions, capital interest expenditure transactions, or summarized burden transactions.

You can't cancel an adjustment performed on an expenditure item for which funds are already reserved against a control budget.

Can I change the source and document for transactions after exporting them to Oracle Fusion Project Costing?

No. You can't change the source, document, or document entry after exporting a transaction to Project Costing.

Project Process Configurator

Overview of Project Process Configurator

Use Project Process Configurator to define formulas for billing, costing methods, and complicated revenue and invoice amounts.

To use the Project Process Configurator, you must have the following privileges and roles:

- Privilege: Manage Project Process Configurator (PJF_MANAGE_PROJECT_PROCESS_CONFIGURATOR_PRIV)
- Duty Role: Project Financial Application Administration (ORA_PJF_PROJECT_FINANCIAL_APPLICATION_ADMINISTRATION_DUTY)
- Job Role: Project Application Administrator (ORA_PJF_PROJECTS_APPLICATION_ADMINISTRATOR_JOB)

Asset Line Grouping Configurator

Asset Line Grouping Configurator

By default, Oracle Project Portfolio Management Cloud groups project cost transactions into asset lines by project, task, and CIP account name. Use Project Process Configurator to group asset lines using additional grouping criteria. This grouping is useful while assigning assets to projects.

For example, you can create a configurator to specify that the application must group asset line costs using project attributes, such as inventory item or funding source, or a user-defined descriptive flex-field. You can also combine

attributes to create specifications for more complex grouping scenarios, such as expenditure category and expenditure organization.

Create Asset Line Grouping Using Project Process Configurator

To create asset line grouping using Project Process Configurator:

1. In the Setup and Maintenance work area, use the **Manage Project Process Configurator** task.
2. On the Manage Project Process Configurator page, click **Create** in the Search Results section.
3. On the Create Project Process Configurator page, enter a **Name** for your configurator.
4. Select **Asset Line Grouping** in the **Business Process** drop-down list.
5. In the **Configurator** section, move the grouping sources that you want to use to group asset lines from the **Available Grouping Sources** list to the **Selected Grouping Sources** list.
6. Verify that the **Active** check box is enabled.
7. Click **Save and Close**.

If you want to manage an existing configurator, use the Search Results section to view and update its details, or to delete it.

Considerations for Asset Line Grouping Configuration

Keep the following considerations in mind while creating the asset line grouping Configurator:

- You can create multiple configurators for asset line grouping, but only one of them can be active.
- You can only select up to ten grouping sources.
- When you create a new asset line grouping method or update an existing one, the application groups all subsequent asset lines created using the active grouping method.
- You can update grouping methods at any time, and all new asset lines will use the active criteria.
- When you create asset line grouping criteria using the Project Process Configurator, the application applies the new criteria on top of the default grouping criteria. For example, if you create a configurator that groups asset lines by Expenditure Organization and Expenditure Type, the application groups asset lines by the following sources.
    - Project
    - Task
    - CIP Account
    - Expenditure Organization
    - Expenditure Type

Grouping Sources Available in the Asset Line Configurator

When you create a custom asset line grouping method using the Asset Line Configurator, you can choose from a combination of the following 48 project grouping sources.

- Billable Indicator
- Contract
- Expenditure Category
- Expenditure Organization
- Expenditure Type

- Funding Source
- Inventory Item
- Person
- Supplier
- Transaction Document
- Transaction Document Entry
- Transaction Source
- Work Type
- Expenditure Item Descriptive Flexfield Attributes 1-10
- Expenditure Type Descriptive Flexfield Attributes 1-15
- User-Defined Descriptive Flexfield Attributes 1-10

Associate Asset Line Grouping Method with Project Types

Here's how you can associate project types with an asset line grouping method created using the Project Process Configurator.

1. In the Setup and Maintenance work area, use the **Manage Project Types** task.
2. On the Manage Project Types page, click the project type that you want to update.
3. On the Edit Project Type page, click **Capitalization Options**.
4. Click **Asset Line Grouping Method** in the **Construction in Progress** section and select **Project Process Configurator**.
5. Click **Save and Close**.

Project Burden Cost Grouping Configurator

Project Burden Cost Grouping Configurator

By default, when a project type is enabled for summarized burden transactions, the application groups the calculated burden costs using built-in criteria, such as the task, organization, and funding source of the source transactions.

Use the Project Process Configurator to specify the source transaction number as the grouping criteria for project burden costs. By adding the source transaction number to the grouping criteria you can more easily reconcile burden transactions to source transactions. The transaction number is available in both the Manage Project Costs page, as well as the OTBI subject area Project Costing - Actual Costs Real Time.

Create a Burden Cost Grouping Configurator

To create a burden cost grouping configurator:

1. In the Setup and Maintenance work area, use the **Manage Project Process Configurator** task.
2. On the Manage Project Process Configurator page, click **Create** in the Search Results section.
3. On the Create Project Process Configurator page, enter a name for your configurator.
4. Select the value **Burden Cost Grouping** in the **Business Process** choice list.
5. In the Configurator section, select the additional criteria (such as Transaction Number) by which you want to group summarized burden transactions, from the **Available Grouping Sources** list.

6. Click **Move** to shuttle the selected items from the **Available Grouping Sources** list to the **Selected Grouping Sources** list.
7. Verify that the **Active** check box is enabled.
8. Click **Save and Close**.

Considerations for Project Burden Cost Grouping Configuration

Here are a few considerations that you must keep in mind while using Project Process Configurator for project burden cost grouping configuration.

- You can't have more than one active burden cost grouping configurator at any time.
- When you create a burden cost grouping configurator or activate an existing one, the application groups all burden costs created thereafter based on the grouping method in the configurator.
- Even when you adjust costs in an existing project, the application ignores the originally used grouping method and follows the specifications in the configurator.
-
  - When you choose to enable the transaction number as a grouping criterion for the Burden Cost Grouping process configurator, be mindful of the volume of summarized burden transactions that will be generated.
  - When you choose to enable the transaction number as a grouping criterion for the Burden Cost Grouping process configurator, population of the source transaction number does not apply retrospectively. The Burden Cost Grouping process configurator must be defined and active when you run the Generate Burden Costs process.

Default Criteria for Grouping Project Burden Costs

Here are the default criteria that Oracle Project Management uses to group project burden costs. These criteria are implicit and can't be changed or removed. Use the Manage Project Process Configurator task to create one-to-one mapping of the system-generated burden cost to the raw cost, using Transaction Number.

- Project
- Task
- Organization
- Project accounting period
- Transaction currency
- Provider ledger currency
- Burden cost code
- Expenditure type class
- Person type
- Billable indicator
- Capitalizable indicator
- PO line
- Data set (For budgetary control integration)
- Contract
- Funding source (Reserved Attribute 1)

22 Project Costing Configuration: Capital Projects

Asset Cost Allocation Methods

Asset cost allocation methods determine how indirect or common costs incurred on a project are allocated to multiple assets.

You can specify an asset cost allocation method to enable Oracle Fusion Project Costing to automatically allocate unassigned asset lines and common costs across multiple assets. Unassigned asset lines typically occur when the asset cost allocation method chosen isn't sufficient to describe how project costs must be allocated to project assets.

Projects and project templates inherit a default asset cost allocation method from the associated project type. You can override the default at the project level. If you use capital events to allocate costs, then you can also override the asset cost allocation method at the event level.

Also, see the Asset Cost Allocation Methods Available in Oracle Projects section in the Allocating Project Asset Costs to Projects and Tasks topic in the Using Project Costing guide.

Specifying Asset Cost Allocation Methods While Setting up a Project Type

Note:

- You must be a project application administrator to perform this task.
- You can perform this task only on project types that are enabled for capitalization.

To specify asset cost allocation methods in project types, navigate to **Setup and Maintenance > Search > Manage Project Types > Search Project Type > Edit Project Type > Capitalization Options** and select the required option from the **Asset Cost Allocation Method** drop-down list.

You can't create projects if you do not have project types defined. Also, you must select the **Enable capitalization** option in the Edit Project Type page if you intend to enable the Capitalization Options section.

Once you've used a project type to create a project template, you can't update the values in the following fields in the project type:

- Cost Type
- Asset Cost Allocation Method
- Event Processing Method
- Require a complete asset definition

You can, however, update the asset cost allocation method that you want to use when you create a project template or project using the project type.

Specifying Asset Cost Allocation Methods While Setting up a Project Template

When you create a project template, you must associate it with a project type. Among other details, the project type specifies default capitalization options for the project template.

Note:

- You must be a project application administrator to perform this task.
- You can perform this task only on project types that are enabled for capitalization.

To set up a project template, navigate to **Setup and Maintenance > Search > Manage Project Templates > Search Project Templates > Edit Project Template**. If the value in the **Project Type** field isn't editable, it means that the project template has already been used in projects, and the project type details can no longer be edited. You can, however, update the asset cost allocation method specified for the project template *if the project template hasn't already been used in a project*.

To update the project template's asset cost allocation method:

1. Expand the **Setup Options > Financial** section in the Edit Project Template page and click **Capitalization Options**.
2. In the Capitalization Option section that appears, click **Edit** to view the Edit Capitalization Options screen.
3. Select the required option from the **Asset Cost Allocation Method** drop-down list.
4. Click **Save and Close**.

Specifying Asset Cost Allocation Methods While Setting up a Project

When you create a project, you must associate it with a project template. As we saw in the previous section, the project administrator can specify default capitalization options for project templates. However, project managers have the ability to update the asset cost allocation method that they want to use in their project.

If you create a project by copying an existing project, the new project assumes the project template of the source project. You can update the asset cost allocation method associated with the newly copied project as well. To do so, navigate to **Projects > Project Financial Management > Search and select project > Panel drawer > Manage Financial Project Settings > Capital > Edit**. Select the required option from the **Asset Cost Allocation Method** drop-down list.

Related Topics

- What's a standard unit cost method?
- Project Cost Collection Methods and Their Implications for Asset Cost Allocation

FAQs for Capital Projects

What's a standard unit cost method?

Standard unit cost method is one of the asset cost allocation methods that is used to allocate common and indirect costs to different assets. For example, you can allocate amounts such as salaries, administrative overhead, and equipment charges across several assets.

A standard unit cost is defined for an asset book and asset category combination. When you use this method, Oracle Fusion Projects multiplies the standard unit cost times the actual units based on the asset book and asset category of each asset and it determines the proration basis for allocating costs. Optionally, you can override the asset cost allocation method when defining capital events.

Can I designate cost of removal and proceeds of sale amounts when processing retirement costs?

Yes. When capturing retirement costs in a capital project, enter proceeds of sale amounts using expenditure types specifically created for that purpose. Oracle Fusion Project Costing automatically classifies amounts for all other expenditure types associated with the retirement cost task as cost of removal.

Capitalized Interest

Capitalized Interest Setup

To set up capitalized interest, you must specify the following capitalized interest options to calculate and capitalize interest on construction-in-progress costs.

- Capitalized Interest Rate: Define thresholds when projects or tasks become eligible for interest calculation and selecting the basis attributes used to calculate interest amounts.
- Capitalized Interest Rate Schedules: Create capitalized interest rate schedules with multipliers for organization and interest rate combinations to calculate capitalized interest.
- Capitalized Interest Rate Schedules for Project Types: Review and update project types to specify the default rate schedule for a capital project type. The rate schedule that you specify for a project type is the default rate schedule for all projects that you create for this project type. You can specify to override the default rate schedule at the project level.
- Capitalized Interest Generation on Project Status Controls: Use project status controls to determine the capitalized interest calculation through the various stages of a project. You must determine the project statuses for which you want to allow the calculation of capitalized interest and update project status controls accordingly. You can review the statuses at a later stage and modify them as required.

Capitalized Interest Setup Options

To correctly calculate capitalized interest, ensure that correct capitalization options are defined at the project type, project template, and project levels. At the project level, verify the following:

- The project allows capitalized interest calculation
- The appropriate capital interest rate schedule and capitalized interest stop date are specified

Allowing Capitalized Interest for a Project

Indicate whether the project is eligible for capitalized interest. By default, this option is enabled for all capital projects. However, you can update the option as required.

Selecting a Capital Interest Schedule and Capital Interest Stop Date

Capitalized interest rate schedules define rates of interest calculation for organizations. The default interest schedule is inherited from the project type. You can override it if the project type allows schedule changes at the project level.

Related Topics

- What's a capital interest stop date?
- Asset Cost Allocation Methods

How Capitalized Interest Rate Schedule Components Work Together

Capitalized interest rate schedules help you maintain the interest rates at the organization level. If the capitalized interest rate is not defined for the organization, the application automatically uses the next higher-level organization in the organization hierarchy.

Capitalized Interest Rate Schedule Components

The following components work together to define a schedule for capitalized interest rates. Provide the rate schedule attributes and then build new multipliers for the version to take effect. You can assign the interest rate schedule to a project type and allow the override of the assigned capitalized interest rate schedule at the project level.

Rate Schedule Components	Description
Default Organization Hierarchy	Organization hierarchy to assign rates to organizations. If there is no rate for an organization, the capitalized interest calculation uses the rate for the next higher-level organization in the organization hierarchy.
Hierarchy Version	The default version of the organization hierarchy to be applied to the schedule.
Hierarchy Start Organization	Start organization to indicate which branch of the organization hierarchy is used as the top of the hierarchy for assigning capitalized interest rates to organizations.

Rate Schedule Components	Description
Hold from Build	Select this option to prevent the rate schedule version from being built, if version is not yet ready for the build.
Rate Multipliers	Specify rate multiplier for an organization and capitalized interest rate combination. Optionally, copy multipliers from other schedule version to this version and use it.

To delete an interest rate schedule, you must build the schedule and then delete it.

How Capitalized Interest Rate Attributes Work Together

Capitalized interest rates represent interest types that are used for capitalizing costs. The application calculates and capitalizes interest on construction-in-progress costs based on the attributes you define for a capitalized interest rate.

Capitalized Interest Rate Attributes

Define the following key attributes for a capitalized interest rate:

Capitalized Interest Rate Attributes	Description
Expenditure Type	Specifies the type of interest transaction that the rate generates.
Expenditure Organization Source	Specifies the expenditure organization source for the generated capitalized interest transactions.
Threshold	**Note:** All threshold specifications must be met before capitalized interest is calculated. Determines when projects with the capitalized interest rate are eligible for interest calculation. Thresholds are defined for a business unit and capitalized interest rate combination. A rate can have more than one business unit but the threshold that you define is specific to a business unit. You can specify any combination of the following threshold settings: • Amount Type: Determines if a project is eligible for capitalized interest. The available options are: Budget, Total Construction-in-Progress, and Open Construction-in-Progress. If the amount type is budget, then select the budget type or plan type to define cost budget amounts. • Project Amount: Specifies the project threshold amount. If you use the threshold amount type Budget and a budget is not defined for a project, then the project is ineligible for interest calculation. • Project Days: Specifies the number of days from the project start date at which the project is eligible for capitalized interest calculation. • Task Amount: Task threshold amount. Similar to project amount, if the amount type is budget, and a budget is not defined for a project, then the project is ineligible for interest calculation. • Task Days: Number of days from the task start date at which the task is eligible for capitalized interest calculation.

Capitalized Interest Rate Attributes	Description
Current Period Calculation Method	You can control the construction-in-progress balance on which interest is calculated by specifying current period calculation method and excluded expenditure types. The current period calculation method specifies how much of the current period construction-in-progress costs are included in the construction-in-progress balance.
Interest Method	Specify if interest must be calculated on a simple or compound basis.
Basis Method	Determines if interest amounts are spread evenly across accounting periods or are derived based on the number of days in each accounting period.
Excluded Expenditure Types	You can exclude one or more expenditure types from the construction-in-progress costs basis for a business unit to calculate capitalized interest.

Related Topics

- Capitalized Interest Setup

Capitalized Interest Calculation

This section covers the settings that affect capitalized interest calculation and how simple interest is calculated.

Settings that Affect Capitalized Interest Calculation

The Calculate Capitalized Interest process takes the following settings into consideration.

- If asset lines are generated for expenditure items, the process doesn't generate capital interest for those items.
- If expenditure items map to the expenditure types specified in the Excluded Expenditure Types section of the Manage Capitalized Interest Rates page, capital interest won't be generated for those items.
- If the project setup date is before the period end date, the process doesn't generate capital expenditures.
- Here's how Amount Type affects capitalized interest:
    - If Budget is the Amount Type, the process checks if the Project or Task Amount Budget for the Financial Plan Type meets the threshold Project Amount or Task Amount defined. Only when the threshold is met, the process generates capital interest for expenditure items which haven't been capitalized.
    - If Open CIP is the Amount Type, the process checks if the sum of expenditure items which aren't capitalized meets the threshold Project Amount or Task Amount defined. Only when the threshold is met, the process generates capital interest for items which haven't been capitalized.
    - If Total CIP is the Amount Type, the process checks if the sum of all the expenditure items (the ones that have been capitalized and the ones that haven't been capitalized) meets the threshold Project Amount or Task Amount defined. Only when the threshold is met, the process generates capital interest for items which haven't been capitalized. Keep in mind that Capitalized Interest isn't generated for expenditure items for which asset lines have been generated.

Calculate Capitalized Interest

To calculate interest, perform the following steps for each item in the project:

1. In the Manage Capitalized Interest Rates page, create a capital interest rate.
2. In the Manage Capitalized Interest Rate Schedules page, create a rate schedule and then click the Build Rate Schedule button.
3. Create expenditure items.
4. Run the Import and Process process.
5. Run the Account and Post to Ledger process.
6. Run the Generate Capitalized Interest process.
7. Review the status of the process in the Manage Capitalized Interest page. The status should be Draft success.
8. Verify the calculations and click the Release button. The expenditure item for the interest is created.

> **Note:** Do not generate asset lines for these expenditure items. If you do so, interest won't be calculated for those expenditure items.

How Simple Interest is Calculated

Here's the formula used by the Calculate Capitalized Interest process to calculate simple interest.

Capital Interest Amount = Eligible Costs * Period Multiplier * Rate Multiplier

Here are the formulas to determine Eligible Costs, Period Multiplier and Rate Multiplier in case of Simple Interest.

- Eligible Costs = Sum of Costs from Prior Periods + Current Period Costs * Current Period Calculation Method - Costs in Which Asset Lines were Generated
- If Basis Method is set to Spread evenly, then Period Multiplier = 1/12.
- If Basis Method is set to By number of days, then Period Multiplier = Number of days in the month/365. For example, for January, the value of Period multiplier is 31/365.
- Rate Multiplier = Interest Rate/100

Examples of Simple Interest Calculation

Let's look at examples of how simple interest is calculated for different settings.

Here's a table that contains the values of settings, such as Current Period Costs, Asset Lines Generated, Period Multiplier and Rate Multiplier, that affect simple interest for a period of 6 months. The table also contains the derived values of Eligible Costs for various Current Period Calculation Method settings.

Month	January	February	March	April	May	June
Current Period Costs (Expenditure Items)	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Asset Lines Generated	$0	$0	$0	$10,000	$10,000	$10,000
Sum of Costs from Prior Periods	$0	$50,000	$100,000	$150,000	$200,000	$250,000

Month	January	February	March	April	May	June
Eligible Costs when Current Period Calculation Method is Full (1)	$50,000	$100,000	$150,000	$190,000	$240,000	$290,000
Eligible Costs when Current Period Calculation Method is Half (0.5)	$25,000	$75,000	$125,000	$165,000	$215,000	$265,000
Eligible Costs when Current Period Calculation Method is None (0)	$0	$50,000	$100,000	$140,000	$190,000	$240,000
Period Multiplier if Basis Method is Spread evenly	1/12	1/12	1/12	1/12	1/12	1/12
Number of Days in the Month	31	28	31	30	31	30
Period Multiplier if Basis Method is By number of days	31/365	28/365	31/365	30/365	31/365	30/365
Rate multiplier	5% (0.05)	5% (0.05)	5% (0.05)	5% (0.05)	5% (0.05)	5% (0.05)

Here's a table that contains the values of simple interest calculated based on the settings in previous table for all the combinations of Current Period Calculation Method and Basis Method.

Month	January	February	March	April	May	June
Simple Interest when: • Current Period Calculation Method is Full • Basis Method is Spread evenly	$208.33	$416.67	$625.00	$791.67	$1,000.00	$1,208.33
Simple Interest when: • Current Period Calculation	$104.17	$312.50	$520.83	$687.50	$895.83	$1,104.17

Month	January	February	March	April	May	June
Method is Half • Basis Method is Spread evenly						
Simple Interest when: • Current Period Calculation Method is None • Basis Method is Spread evenly	$0.00	$208.33	$416.67	$583.33	$791.67	$1,000.00
Simple Interest when: • Current Period Calculation Method is Full • Basis Method is By number of days	$212.33	$383.56	$636.99	$780.82	$1,019.18	$1,191.78
Simple Interest when: • Current Period Calculation Method is Half • Basis Method is By number of days	$106.16	$287.67	$530.82	$678.08	$913.01	$1,089.04
Simple Interest when: • Current Period Calculation Method is None • Basis Method is By number of days	$0.00	$191.78	$424.66	$575.34	$806.85	$986.30

Let's take a closer look at some of the examples.

Here's how simple interest is calculated for March when Current Period Calculation Method is Full and Basis Method is Spread evenly.

- Eligible Costs = $100,000 (Sum of Costs from Prior Periods. That is, costs for January and February.) + $50,000 (Current Period Costs. That is, costs for March.) * 1 (Current Period Calculation Method is Full) - $0 (Costs in Which Asset Lines were Generated) = $150,000
- Period Multiplier = 1/12 (Basis Method is Spread evenly)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Simple Interest = $150,000*(1/12)*(5/100) = $625

Here's how simple interest is calculated for April when Current Period Calculation Method is Half and Basis Method is By number of days.

- Eligible Costs = $150,000 (Sum of Costs from Prior Periods. That is, costs for January, February and March.) + $50,000 (Current Period Costs. That is, costs for April.)*0.5 (Current Period Calculation Method is Half) - $10,000 (Costs in Which Asset Lines were Generated) = $165,000
- Period Multiplier = 30/365 (Basis Method is By number of days)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Simple Interest = $165,000*(30/365)*(5/100) = $678.08

How Compound Interest is Calculated

The formula used to calculate simple interest is similar to the formula used to calculate compound interest. However, in case of compound interest, Eligible Costs also include the sum of interests from all the prior periods.

Here's the formula used by the Calculate Capitalized Interest process to calculate compound interest.

Capital Interest Amount = Eligible Costs * Period Multiplier * Rate Multiplier

Here are the formulas to determine Eligible Costs, Period Multiplier and Rate Multiplier in case of Compound Interest.

- Eligible Costs = Sum of Costs from Prior Periods + Current Period Costs * Current Period Calculation Method - Costs in Which Asset Lines were Generated + Sum of Interest from Prior Periods
- If Basis Method is set to Spread evenly, then Period Multiplier = 1/12.
- If Basis Method is set to By number of days, then Period Multiplier = Number of days in the month/365. For example, for January, the value of Period multiplier is 31/365.
- Rate Multiplier = Interest Rate/100

Examples of Compound Interest Calculation

Let's look at examples of how compound interest is calculated for different settings. Keep in mind that the values of eligible costs vary based on the interest generated.

First, we will look at how compound interest is calculated when the Basis Method is Spread evenly.

Here's a table that contains the values of settings, such as Current Period Costs, Asset Lines Generated, Period Multiplier and Rate Multiplier, which affect compound interest for a period of 6 months. The table also contains the derived values of Eligible Costs for various Current Period Calculation Method settings when the basis method is Spread evenly.

Month	January	February	March	April	May	June
Expenditure Items/ Current Period Costs	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Asset Lines Generated	$0	$0	$0	$10,000	$10,000	$10,000
Sum of Costs from Prior Periods	$0	$50,000	$100,000	$150,000	$200,000	$250,000
Eligible Costs when: • Calculation Method is Full (1) • Basis Method is Spread evenly	$50,000.00	$100,208.33	$150,625.87	$191,235.48	$242,050.37	$293,058.91
Eligible Costs when: • Calculation Method is Half (0.5) • Basis Method is Spread evenly	$25,000.00	$75,104.17	$125,417.10	$165,939.67	$216,631.09	$267,533.72
Eligible Costs when: • Calculation Method is None (0) • Basis Method is Spread evenly	$0.00	$50,000.00	$100,208.33	$140,625.87	$191,211.81	$242,008.53
Period Multiplier when Basis Method is Spread evenly	1/12	1/12	1/12	1/12	1/12	1/12
Rate Multiplier	0.05	0.05	0.05	0.05	0.05	0.05

Here's a table that contains the values of compound interest calculated based on the settings in previous table for all the combinations of Current Period Calculation Method when the Basis Method is spread evenly.

Month	January	February	March	April	May	June
Compound Interest when: • Current Period Calculation Method is Full (1) • Basis Method is Spread evenly	$208.33	$417.53	$627.61	$796.89	$1,008.54	$1,221.08
Compound Interest when: • Current Period Calculation Method is Half (0.5) • Basis Method is Spread evenly	$104.17	$312.93	$522.57	$691.42	$902.63	$1,114.72
Compound Interest when: • Current Period Calculation Method is None (0) • Basis Method is Spread evenly	$0.00	$208.33	$417.53	$585.94	$796.72	$1,008.37

Let's take a closer look at some of the examples.

Here's how compound interest is calculated for March when Current Period Calculation Method is Full and Basis Method is Spread evenly.

- Eligible Costs = $100,000 (Sum of Costs from Prior Periods. That is, costs for January and February.) + $50,000 (Current Period Costs. That is, costs for March.) * 1 (Current Period Calculation Method is Full) - $0 (Costs in Which Asset Lines were Generated) + $208.33 + $417.53 (Interest from the prior periods) = $150,625.87
- Period Multiplier = 1/12 (Basis Method is Spread evenly)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Compound Interest = $150,625.87*(1/12)*(5/100) = $627.61

Here's how compound interest is calculated for April when Current Period Calculation Method is Half and Basis Method is spread evenly.

- Eligible Costs = $150,000 (Sum of Costs from Prior Periods. That is, costs for January, February and March.) + $50,000 (Current Period Costs. That is, costs for April.)*0.5 (Current Period Calculation Method is Half) -

$10,000 (Costs in Which Asset Lines were Generated) + $104.17 + $312.93 + $522.57 (Interest from the prior periods) = $165,939.67

- Period Multiplier = 1/12 (Basis Method is Spread evenly)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Simple Interest = $165,939.67*(1/12)*(5/100) = $691.41

Let's look at how compound interest is calculated when the Basis Method is By number of days.

Here's a table that contains the values of settings, such as Current Period Costs, Asset Lines Generated, Period Multiplier and Rate Multiplier, which affect compound interest for a period of 6 months. The table also contains the derived values of Eligible Costs for various Current Period Calculation Method settings when the basis method is By number of days.

Month	January	February	March	April	May	June
Expenditure Items/ Current Period Costs	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Asset Lines Generated	$0	$0	$0	$10,000	$10,000	$10,000
Sum of Costs from Prior Periods	$0	$50,000	$100,000	$150,000	$200,000	$250,000
Eligible Costs when: • Calculation Method is Full (1) • Basis Method is By number of days	$50,000.00	$100,212.33	$150,596.70	$191,236.23	$242,022.13	$293.049.89
Eligible Costs when: • Calculation Method is Half (0.5) • Basis Method is By number of days	$25,000.00	$75,106.16	$125,394.24	$165,926.74	$216,608.63	$267,528.47
Eligible Costs when: • Calculation Method is None (0)	$0.00	$50,000.00	$100,191.78	$140,617.25	$191,195.13	$242,007.06

Month	January	February	March	April	May	June
• Basis Method is By number of days						
Number of days in the month	31	28	31	30	31	30
Period Multiplier when Basis Method is By number of days	31/365	28/365	31/365	30/365	31/365	30/365
Rate Multiplier	0.05	0.05	0.05	0.05	0.05	0.05

Here's a table that contains the values of compound interest calculated based on the settings in previous table for all the combinations of Current Period Calculation Method when the Basis Method is By number of days.

Month	January	February	March	April	May	June
Compound Interest when: • Current Period Calculation Method is Full (1) • Basis Method is By number of days	$212.33	$384.38	$639.52	$785.90	$1,027.77	$1,204.31
Compound Interest when: • Current Period Calculation Method is Half (0.5) • Basis Method is By number of days	$106.16	$288.08	$532.50	$681.89	$919.84	$1,099.43
Compound Interest when: • Current Period Calculation Method is None (0)	$0.00	$191.78	$425.47	$577.88	$811.92	$994.55

Month	January	February	March	April	May	June
• Basis Method is By number of days						

Let's take a closer look at some of the examples.

Here's how compound interest is calculated for March when Current Period Calculation Method is Full and Basis Method is By number of days.

- Eligible Costs = $100,000 (Sum of Costs from Prior Periods. That is, costs for January and February.) + $50,000 (Current Period Costs. That is, costs for March.) * 1 (Current Period Calculation Method is Full) - $0 (Costs in Which Asset Lines were Generated) + $212.33 + $384.38 (Interest from the prior periods) = $150,596.70
- Period Multiplier = 31/365 (Basis Method is By number of days)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Compound Interest = $150,596.70*(1/12)*(5/100) = $639.52

Here's how compound interest is calculated for April when Current Period Calculation Method is Half and Basis Method is spread evenly.

- Eligible Costs = $150,000 (Sum of Costs from Prior Periods. That is, costs for January, February and March.) + $50,000 (Current Period Costs. That is, costs for April.)*0.5 (Current Period Calculation Method is Half) - $10,000 (Costs in Which Asset Lines were Generated) + $106.16 + $288.08 + $532.50 (Interest from the prior periods) = $165,926.74
- Period Multiplier = 30/365 (Basis Method is By number of days)
- Rate Multiplier = 5/100 (Interest Rate is 5 percent)
- Simple Interest = $165,939.67*(1/12)*(5/100) = $681.89

FAQs for Capitalized Interest

What's a capital interest stop date?

Date that determines the accounting period up to which capital interest is calculated for a project or task.

For example, assume the stop date for your project is December 27, 2010 and your accounting periods are weekly. That is, the stop date falls in the fourth period of December. In such a case, capital interest is calculated only up to the third period in December 2010.

23 Project Costing Configuration:Labor Distribution

Accounting Objects Specific to Labor Distribution

Labor Distribution leverages many seeded accounting objects, such as Business Unit, Award, Project, Task, and so on.

In addition to seeded accounting objects, Labor Distribution also uses a **Non-Project Labor Costs** event class to identify and track labor costs that are not directly associated with specific projects. To incorporate this event class into the Project Costing subledger, run the **Setup and Maintenance > Update Subledger Application Options** task. For more information about this process, see the Oracle Financials Cloud Implementing Subledger Accounting guide. Specifically, see Subledger Accounting Options.

Use the **Non-Project Labor Cost** seeded subledger journal entry rule set to account for the two types of non-project costs generated from the labor distribution Import Payroll Costs process:

1. Non-project labor costs specified on the labor schedule:
    a. GL Account specified labor schedule distribution rule
    b. Journal Line Rule = Imported Non-Project Labor Cost
2. Non-project labor costs generated to complete the differential between the labor schedule distributions total and 100%, ensuring full distribution of the payroll cost:
    a. If an Active Version has Distribution Rules that do not total 100%, the Import Payroll Costs process will create a cost distribution to equal the differential.
    b. Journal Line Rules = Non-Project Labor Cost, Non-Project Labor Cost Clearing, Non-Project Labor Cost Reversal, and Non-Project Labor Cost Clearing Reversal.

To review details associated with the Non-Project Labor Cost subledger journal entry rule set, navigate to **Setup and Maintenance > Setup: Fusion Accounting Hub > Accounting Transformation**.

Initial Setup Option

This section provides a description of the accounting setup needed for this feature, along with an explanation of all seeded accounting objects for deciding on other implementations to meet business needs.

To add the new event class of **Non-Project Labor Costs** to your subledger accounting method using the seeded Non-Project Labor Cost rule set, you will need to:

1. Manage mapping sets to set the account values for the credit and debit of the journal rules.
2. Add this rule set (or make a copy of it and add) to your subledger accounting method for Project Costing using the **Setup and Maintenance > Manage Accounting Methods** task.

> **Note:** A best practice is to make a copy of the seeded journal entry rule set to maintain the standard seeded rule set for reference.

An overview of the seeded objects and an example for payroll clearing are provided below.

Accounting Objects Seeded for Use with Labor Distribution

To understand accounting objects that are seeded for use with Labor Distribution, you must review the following, described in dedicated sections, below:

- Journal line rules
- Mapping sets
- Accounting rules
- The associated journal entry rule set
- The Manage Accounting Methods task

Journal Line Rules

There are five journal line rules for the Non-Project Labor Cost event class.

The labor distribution feature uses the existing **Labor Cost** rule for project labor costs that get passed thought the **Import Payroll Costs** job.

Here's a table offering a brief description of the journal line rule names associated with labor distribution:

Journal Line Rule Names Associated with Labor Distribution

Journal Line Rule Name	Description
Imported Non-Project Labor Cost (debit)	Journal line for non-project related labor costs when an account is specified in the labor schedule distribution rule.
Non-Project Labor Cost (debit)	Journal line for non-project related labor cost when an account is not specified in the labor schedule distribution rule. These are the differential distributions that are generated if the total of labor schedule distribution rules is less than 100%. This will fully distribute the imported payroll cost.
Non-Project Labor Cost Clearing (credit)	This rule is used to create the credit side of the accounting for both the Imported Non-Project Labor Cost and the Non-Project Labor Cost debits.
Non-Project Labor Cost Clearing Reversal (credit)	Reversal Journal line used for non-project related labor cost clearing.
Non-Project Labor Cost Reversal (debit)	Reversal Journal line used for non-project related labor cost.

Why are there five journal line rules instead of six?

The business flow of these labor distribution costs (Imported Non-Project Labor Cost and Non-Project Labor Cost) to the general ledger is expected to use the same payroll clearing account.

Mapping Sets

There are two mapping sets associated with non-project labor costs:

- Non-Project Labor Cost Account: Specifies the account combination used for non-project labor cost accounting events.

- Non-Project Labor Cost Clearing Account: Specifies the account combination used for non-project labor cost clearing accounting events.

The Imported Non-Project Labor Cost Journal Line Rule does NOT need a mapping set, because it's an account combination passed directly from the labor schedule version distribution.

To define an account for mapping sets, you must map each account to the chart of accounts, and then to a specific account code combination.

Account Rules

There are three account rules associated with non-project labor costs.

- Imported Non-Project Labor Cost Account: Account combination rules for the Imported Non-Project Labor Cost Account combination.
- Non-Project Labor Cost Account: Account combination rules for the Non-Project Labor Cost Account combination.
- Non-Project Labor Cost Clearing Account: Account combination rules for the Non-Project Labor Cost Clearing Account combination.

The Imported Non-Project Labor Cost Account uses the Cost Account source to capture the account.

The other two rules are setup to use corresponding mapping sets defined earlier.

Journal Entry Rule Set

The seeded Non-Project Labor Cost journal entry rule set specifies how to process debit and credit line types specific to all five journal entry rules described above.

Manage Accounting Methods

The Manage Accounting Methods task is documented here for reference and is an accounting setup step that is required to be performed by customers. The step is to add a journal entry rule set to an appropriate subledger accounting method. In this instance, you associate the **Vision City Accrual with Encumbrance Accounting** accounting method to the **Non-Project Labor Cost** journal entry rule set.

To do so:

1. You navigate to the Manage Accounting Methods: Project Costing page and search for the **Vision City Accrual with Encumbrance Accounting** accounting method.
2. You click the accounting method to edit it and add the **Non-Project Labor Cost** journal entry rule set in the Journal Entry Rule Set Assignments section.
3. You click **Save and Close** to exit the page.

> **Note:** After adding the Journal Entry Rule Set to the subledger accounting method, be sure to run the **Activate Subledger Journal Entry Rule Set Assignments** process.

Example of Accounting Setup for Payroll Clearing

A common accounting flow is to send the payroll transactions that are sent to Projects for Labor Distribution, to a clearing account. These transactions will then be credited after they flow through the Import Payroll Costs process.

Managing this clearing account ensures the payroll costs are processed successfully through to the general ledger and are properly accounted.

Summary Flow

In this example, payroll is run and costed for two employees. These payroll costs are imported and distributed to projects/awards and to the General Ledger via the subledger accounting processes.

Step 1

Two employees are on the monthly payroll at Oracle University. They are John Smith, with a monthly salary of $2,500, and Mary Marshall, with a monthly salary of $3,600. The one element is Regular Salary. Total payroll costs are $6,100 for the current month. These costs are processed and costed from Payroll to General Ledger, as shown in the table below.

Regular Salary Costs Processing Details

Account	Total Payroll Costs	Debit/Credit
Payroll Clearing (00.000.1500)	$6,100	Debit
Payroll Liability (00.000.2100)	$6,100	Credit

Step 2

Labor schedules are established at the employee assignment level for each employee.

Labor Schedule Distribution Rules for John Smith

John Smith – Labor Schedule Distribution Rule	Distribution Rule Percent
GL Account 10.200.6010	20%
DOD Project	80%

Labor Schedule Distribution Rules for Mary Marshall

Mary Marshall – Labor Schedule Distribution Rule	Distribution Rule Percent
GL Account 10.300.6010	40%
NSF Project	60%

Step 3

The **Import Payroll Costs** process in Projects is run and creates the project and non-project costs, which can be reviewed in the Manage Labor Costs pages.

Distribution Amounts Identified Using Labor Schedule Distribution Rules

Employee	Distribution Rule	Distribution Amount
John Smith	GL 10.200.6010	$500

John Smith	DOD Project	$2,000
Mary Marshall	GL 10.300.6010	$1,440
Mary Marshall	NSF Project	$2,160

Step 4

The **Create Accounting for Projects** process generates appropriate journal entries based on subledger accounting rules.

Non-Project Journal Entries Created for Appropriate Distribution Amounts

Non-Project Journal Entries	Amount	Debit/Credit
GL 10.200.6010	$500	Debit
GL 10.300.6010	$1,440	Debit
Payroll Clearing	$1,940	Credit

Project Journal Entries Created for Appropriate Distribution Amounts

Project Journal Entries	Amount	Debit/Credit
GL 20.000.6000 *	$4,160	Debit
Payroll Clearing	$4,160	Credit

* This is assumed to be the account assigned to the debit for all project-related labor costs in the accounting rules. The total amount associated with project journal entries comprises $2,000 for the DOD Project, and $2,160 for the NSF Project, resulting in a combined amount of $4,160.

The table below illustrates the consolidated view of the general ledger entries after the labor distribution and accounting processes are complete. The payroll clearing has a zero balance, and appropriate general ledger accounts show debit balances for labor expenditures. The payroll clearing will NOT net to zero if any of the project costs error out when the Import Payroll Costs process runs in Projects.

General Ledger Entries Consolidated View

Account	Example Step	Debit	Credit
00.000.1500, Payroll Clearing	Step 1	$6,100	
	Step 4		$1,940
	Step 4		$4,160
00.000.2100, Payroll Liability	Step 1		$6,100
10.200.6010, General Fund.Engineering.Salary	Step 4	$500	
10.300.6010, General Fund.Cardiology.Salary	Step 4	$1,440	

Account	Example Step	Debit	Credit
20.000.0600, Restricted Fund.General.Salary	Step 4	$4,160	

Example of Using the Pay Element Source in Subledger Accounting

The scenario used in this example is that a specific pay element should generate a specific account using a segment override. This allows for the costs to distribute to projects via the labor schedule distributions and the subledger accounting will route them according to the detail mapping sets.

The pay element of Car Allowance needs to be routed to a different account segment than the other pay elements. To accomplish this, the accountant will:

1. Create a mapping set with the Output Type = Segment.
2. Specify the account in the Mappings section on the lower part of the page.
3. The journal entry rule set in use has an existing segment rule for the associated labor cost journal lines.
4. The account rule being used for this segment is modified to leverage the new mapping set and apply it specifically for the condition of labor distribution.
5. After accounting processes are run, these costs are accounted to the specified segment based on the pay element, while other pay elements use the other segment rules.

Create Payroll Elements

A payroll element is a type of pay that's available for a person and assignment combination. A common example of a payroll element is Bonus pay.

Labor distribution provides you with the ability to define labor schedules for pay elements using the Human Capital Management (HCM) Payroll element object.

> **Note:** The payroll elements are already configured if your enterprise uses Oracle HCM Payroll.

Here are the steps you must perform to create a payroll element:

1. In the Setup and Maintenance work area, go to the **Elements** task.
2. Click the **Create** option.
3. Select the values for the **Legislative Data Group** and **Primary Classification**, while setting the **Category** as **Standard**.
4. Click **Continue**.
5. Enter the element **Name**, **Reporting Name**, and **Duration** on the Basic Information page.
6. Click **Next**.
7. On the Additional Details page, verify if the default values selected are correct and click **Next**.
8. Perform a final review of all the options selected for this element on the Review page.

   > **Note:** Using the default options is advised, while creating an element.

9. Click Submit.

   The payroll element is created. You can search for the new element using the Element Name.

> **Note:** Additional elements may be created based on your Country settings. For more information on how to set up elements, refer to the Elements section of the Oracle Global Human Resources Cloud Implementing Global Payroll guide.

Related Topics

Payroll Element Setup Instructions for Non-Oracle Payroll Customers

Customers who haven't deployed Oracle Cloud Payroll may not have setup payroll elements. In order to use them in Labor Distribution, you must set up all payroll elements that you plan to import into Labor Distribution.

The steps below are simple setup instructions. For more information, see Set Up Elements in the Oracle Global Human Resources Cloud Implementing Payroll for Global guide.

Overview

A pay element is a type of pay that a person and assignment can receive. For example, Bonus is a common pay element that can be included in a person and assignment pay combination. Labor Distribution enables labor schedule administrators to define labor schedules for pay elements.

In order to ensure accuracy and to enable the usage of Pay Element as an accounting attribute, the Labor Distribution solution leverages the Human Capital Management (HCM) Payroll element object.

Create and Maintain Elements

For customers using Oracle HCM Payroll, pay element objects will already be configured. However, if you're not using Oracle HCM Payroll, use the **Setup and Maintenance > Elements** task to create pay elements that you can use in your labor schedules. For detailed guidance on performing this task, see Create Payroll Elements in the Administering Oracle Payroll Interface guide.

When you create a pay element and you query for it later, you can see that three additional elements are created based on the Legislative Data Group you selected. These are part of the Time and Labor module and are used for calculating, distributing, and reporting on employee earnings in Oracle Payroll. If you aren't using Payroll, these do not apply to you, and you can safely ignore them.

Loading Elements from Third Party Applications

You can load elements from a separate payroll system using the HCM Data Loader solution. For information on how to load elements, see the Loading Payroll Setup Objects section in the HCM Data Loading Business Objects guide.

How can I integrate Oracle Payroll and Labor Distribution for automated payroll distribution?

Use the Oracle Fusion Payroll Transaction Source to import payroll costs from Oracle Fusion Payroll.

Note: Payroll costs must be accounted in order to be distributed to Projects.

You must have the following privileges to perform these tasks:

- Manage Payroll Pay Elements for Project Labor Cost (PJC_MANAGE_PAY_ELEMENTS_FOR_PROJECT_PRIV)
- Transfer Payroll Costs to Projects (PAY_TRANSFER_TO_PROJECTS_PRIV)
- Manage Project Labor Distributions (PJC_MANAGE_PROJECT_LABOR_DISTRIBUTIONS_PRIV)
- Manage Project Labor Schedules (PJC_MANAGE_PROJECT_LABOR_SCHEDULES_PRIV)
- Manage Project Labor Schedules at Element Level (PJC_MANAGE_PROJECT_LABOR_SCHEDULES_AT_ELEMENT_LEVEL_PRI
- Use REST Service - Payroll Element Definition List of Values (PAY_REST_SERVICE_ACCESS_PAYROLL_ELEMENT_DEFINITION_LOV_PRIV)
- Use REST Service - Workers List of Values (PER_REST_SERVICE_ACCESS_WORKERS_LOV_PRIV)
- Delete Project Labor Distributions in Error (PJC_DELETE_PROJECT_LABOR_DISTRIBUTIONS_IN_ERROR_PRIV)
- Process Costs with Unchanged Project Labor Distributions (PJC_PROCESS_COSTS_WITH_UNCHANGED_PROJECT_LABOR_DISTRIBUTIONS_PRIV)

For details on how you can set up users and roles for labor distribution, see the How do I set up roles and responsibilities for Labor Distribution? playbook.

Manage Project Payroll Pay Elements Eligible for Distribution in Oracle Payroll

This task enables you to set up the pay elements to be distributed to Projects.

To manage project payroll pay elements, navigate to Labor Distribution and click the **Manage Project Payroll Pay Elements** tab. The Manage Project Payroll Pay Elements page appears. **Search** and select a payroll pay element and click **Edit** to update the **Start** and **End** dates during which the payroll pay element will be effective.

Note: You can't edit the name of the payroll pay element.

Manage Pay Element to Expenditure Type Derivation

This optional task enables you to map payroll pay elements to project expenditure types. These derivations enable you to set up one labor schedule per person, but have different expenditure types based on the pay elements being distributed.

To manage pay element to expenditure type derivations, navigate to Labor Distribution and click the **Manage Pay Element Expenditure Type Derivation** tab. The Manage Pay Element Expenditure Type Derivation page appears. Search for a pay element or expenditure type to view and edit related derivations.

To create a pay element expenditure type derivation, click **Create**. The Create Pattern side panel appears. Give the derivation pattern a **Name**, select the **Pay Element** and **Expenditure Type** that you want to map together, and specify the **Start** and **End** dates for the mapping. Save your changes, and your mapping is done. When the Import Payroll Costs process is next run, costs that belong to the pay element in your derivation rule will be listed under the expenditure type that you listed in your derivation mapping.

Manage Project Cost Date Derivation Using the Manage Labor Distribution Profile Options Task

Note: You must be an Applications Administrator to perform this task.

Use the **Expenditure Item Date Derivation for Payroll Costs** profile option to change the default derivation rule. Optionally, change the default value of **Payroll Process Start Date** to **Payroll Process End Date**. This change derives the expenditure item date based on the latest date of the labor schedule version end date, assignment end date, or the pay period end date instead of the start of those date-bounded objects. You can view this profile option upon searching for it in the **Manage Profile Options** setup and maintenance task. By default, it is enabled at the site level. Depending on your requirement, you can enable this at the product or user level.

To update the project cost date derivation profile option value, navigate to **Setup and Maintenance > Manage Administrator Profile Values** and search for the **Expenditure Item Date Derivation for Payroll Costs** profile option in the **Profile Display Name** field. When you select this profile option, the Profile Values section displays the value that is set for the profile option. Click the **Profile Value** field in this section to update it.

Related Topics

- Import Payroll Costs

FAQs for Project Costing Configuration:Labor Distribution

Why is a user with the Labor Distribution Administrator role not seeing the right list of people?

If the user was able to view persons in the Find Person page earlier, have the user clear the browser cache and refresh the page.

If that does not resolve this problem, a security administrator should run the scheduled processes below to ensure that users and roles have been updated effectively.

1. Send Pending LDAP Requests
2. Retrieve Latest LDAP Changes

3. Import User and Role Application Security Data

For information on how you can control the list of users that a labor distribution administrator can see, review the *Setting Up the HCM Security Framework for Appropriate Access to Persons and Pay Elements Across an Enterprise* topic in the *How do I set up roles and responsibilities for Labor Distribution?* guide.

Can I restrict access to pay element labor schedule management capabilities?

Only security administrators can manage labor schedule management roles. To create security administrator roles that can't manage labor schedules, copy the existing security administrator roles and remove the Manage Project Labor Schedules at Element Level privilege from the new role.

How do I enable a user to run the Import Assignment Labor Schedules process?

To run the Import Assignment Labor Schedules process successfully, one needs the Run Import Assignment Labor Schedules security privilege. This privilege is included in the Project Application Administrator and Application Implementation Consultant roles.

To assign this privilege to a user, create a custom role by copying an existing role and adding the **Run Import Assignment Labor Schedules** privilege. This privilege is not associated with any specific labor distribution related role out of the box.

Why don’t I see my project pay elements even after I’ve set them up in Oracle Fusion Payroll?

To display project pay elements on the Manage Project Payroll Elements page, verify that the pay elements are configured for costing in the HCM application.

This step is necessary when the **Oracle Fusion Payroll** transaction source is used in the Import Payroll Costs process. A pay element must have the costing type of **Costed** in HCM, which indicates that the pay element is used for a monetary result and will be available for distribution to projects.

If the pay element isn't enabled for costing, it can be used in labor schedule definition and payroll cost distribution only from the transaction source of **Oracle Fusion Projects**, which implies it's coming from a third-party payroll source.

24 Project Costing Configuration: Borrowed and Lent Accounting

Borrowed and Lent Business Unit Options

Cross-Charge Options for Project Business Units

PPM provides two methods to process cross-charge transactions in legal entities.

- *Borrowed and Lent Accounting:* Creates accounting entries that move an amount equal to the transfer price between the provider and receiver organizations within a legal entity. There is no formal internal invoice created with this method. Costs or revenue are shared based on transfer price rules.

  Use the Borrowed and Lent processing method to apply cross-charge transactions within a business unit or between business units.
- *Intercompany Billing:* Enables the provider organization to present a formal invoice based on the transfer price to the receiver organization and receive payment for services rendered and materials supplied. You can use this processing method between legal entities.

  You must set up the contract business unit to use the Intercompany Billing processing method.

This section describes the project business unit options for setting up cross-charge transactions for sharing costs and revenue within and between business units in the same legal entity.

Transfer Price Currency Conversion

Select the date type, either transaction date or project accounting date, and rate type that the application uses by default to determine the conversion rate to convert the transfer price amount from the transaction currency to the ledger currency.

Cross-Charge Transactions Within a Legal Entity

The method of creating cross-charge transactions can be different for transactions within a business unit than the method used across business units. You can choose either the Borrowed and Lent Processing method of creating cross-charge transactions, or specify that no cross-charge transactions will be created.

The processing method that you specify for cross-charge transactions between business units is the default method used between the provider business unit and any other receiver business unit. You can override the default processing method for specific receiver business units.

> **Note:** If you delete the override of the default processing method for a specific receiver business unit, you must manually adjust transactions to reflect the deleted controls.

Prerequisites for Setting Up Business Unit Options for Cross-Charge Transactions

Before you can set up the cross-charge options during business unit implementation to enable cross-charge transactions within a business unit and between business units, you must complete prerequisite setup steps.

Prerequisites for Creating Cross-Charge Transactions

You must define the following objects before you can create cross-charge transactions.

- Legal entities, including setting up accounting and associating the balancing segment values to the legal entity.
- Business units with the project accounting business function.
- Organizations and organization hierarchies that share resources.

  Note: If you use organization hierarchies, the application uses the project expenditure organization hierarchy, and the project and task owning organization hierarchy, to determine the transfer price defined for the provider organization and receiver organization combination.

Prerequisites for Borrowed and Lent Processing Method

You can implement the Borrowed and Lent processing method of creating cross-charge transactions after defining the following objects.

- Transfer price rule and schedule
- Either a rate schedule or burden schedule, based on the transfer price rule

Prerequisites for Intercompany Billing Processing Method

For the Intercompany Billing processing method of creating cross-charge transactions, set up at least one of the following schedules.

- Rate schedule
- Burden schedule
- Transfer price rule and schedule

FAQs for Borrowed and Lent Business Unit Options

What's the difference between intercompany billing and interproject billing?

Intercompany billing creates internal invoices and accounting entries to pass costs and share revenue across organizations on an intercompany billing contract. A provider organization performs work and charges it a project owned by the receiver organization.

The provider organization creates an invoice in Oracle Fusion Receivables and the receiver organization imports the invoice from Oracle Fusion Payables. Accounting entries for revenue are created between the organizations.

Interproject billing creates internal invoices for costs incurred between a provider project and a receiver project defined on an interproject billing contract. The provider project generates an Oracle Fusion Receivables invoice, which the receiver project receives as an Oracle Payables invoice.

25 Project Costing Configuration: Project Costing Integrations

How Project Costing Integrates with Oracle Applications

Oracle Fusion Project Costing fully integrates with Oracle Fusion Purchasing, Oracle Fusion Self Service Procurement, Oracle Fusion Receipt Accounting, Oracle Fusion Expenses, Oracle Fusion Payables, Oracle Fusion Inventory Management, and Oracle Fusion Cost Management and enables you to capture and transfer project-related transactions.

For example when you purchase goods, the project information is carried from the requisition to purchase orders to supplier invoices to finally project expenditure items.

Oracle Fusion Project Costing also integrates with Oracle Fusion Assets to capture capital assets and retirement adjustment costs. Oracle Fusion Project Costing fully integrates with Oracle Fusion Subledger Accounting so that you can create accounting for your project-related transactions.

Implementing Oracle Fusion Payables

Implement Oracle Fusion Payables to enter project-related supplier invoices in Oracle Fusion Payables and to import project-related expense reports from Oracle Fusion Expenses. You use supplier and invoice information in Oracle Fusion Payables to create expenditure items for projects in Oracle Fusion Project Costing.

When the primary accounting method is accrual basis accounting, you transfer invoice distributions and payment discounts as actual costs. When invoices are matched to receipt accrual purchase orders, Oracle Fusion Supply Chain Management transfers invoice variances to Oracle Fusion Project Portfolio Management. For receipt accruals, Oracle Fusion Payables transfers discounts to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Purchasing, Oracle Fusion Self Service Purchasing, Oracle Fusion Receipt Accounting, and Oracle Fusion Cost Management

Implement Oracle Fusion Purchasing and Oracle Fusion Self Service Purchasing to enter project-related requisitions, requests for quotations, and purchase orders, and then report them as outstanding committed costs of requisitions and purchase orders on your projects.

Implement Oracle Fusion Receipt Accounting to create receipts against purchase orders. Thereafter, Oracle Fusion Cost Management transfers project-related receipt accruals as actual supplier costs. When the primary accounting method is accrual basis accounting, you transfer the costs associated with the receipt as actual costs. Oracle Fusion Cost Management transfers the variances for receipt accruals by accumulating the costs from Oracle Fusion Payables and then transfers them to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Inventory Management

Implement Oracle Fusion Inventory Management to order and receive items into inventory before assigning them to a project. You can capture project information for miscellaneous transactions and movement requests as you take items out of or receive items into Oracle Fusion Inventory Management. When you enter project-related transactions

in Oracle Fusion Inventory Management, you enter the project information on the source transaction. Oracle Fusion Cost Management transfers project-related miscellaneous inventory issues and move orders to Oracle Fusion Project Portfolio Management.

Implementing Oracle Fusion Expenses

Employees and contingent workers can enter and submit expense reports. Oracle Fusion Expenses doesn't reimburse employees and contingent workers in the same manner. When you submit an expense report for reimbursement, the reimbursement process creates:

- Payment requests for employees
- Invoices for contingent workers

Oracle Fusion Expenses integrates with Oracle Fusion Payables to provide quick processing of expense reports for payment. You can create project-related expense reports in Oracle Fusion Expenses and transfer to Oracle Fusion Payables and then to Oracle Fusion Project Costing.

Implementing Oracle Fusion Assets

Implement integration with Oracle Fusion Assets to collect construction-in-progress and expense costs in Oracle Fusion Project Costing for each asset you're building. You can then update your fixed asset records when assets are ready to be placed in service or retired. In addition, you can perform retirement cost processing to capture retirement-work-in progress costs associated with the retirement of assets in Oracle Fusion Assets.

Implementing Oracle Fusion Subledger Accounting

Oracle Fusion Subledger Accounting is the single source of all internally derived accounting. Oracle Fusion Project Costing seamlessly integrates with Oracle Fusion Subledger Accounting for accounting costs. After the accounting events are generated in Oracle Fusion Project Portfolio Management, the subledger accounting entries are created and then transferred to the Oracle Fusion General Ledger.

For transactions imported from other Oracle Fusion applications, such as Oracle Fusion Payables, Oracle Fusion Receipt Accounting, and Oracle Fusion Cost Management, you can view accounting entries created in Oracle Fusion Subledger Accounting without navigating to the source application. For transactions imported from non-Oracle applications, you can view the accounts imported into Oracle Fusion Project Costing without navigating to the third-party application.

Project Costs Capture

You can capture project-related costs from both Oracle Cloud and third-party applications, and then transfer them to Oracle Projects. You can also capture costs manually by creating uncosted, costed, and accounted transactions for third-party application sources in Projects.

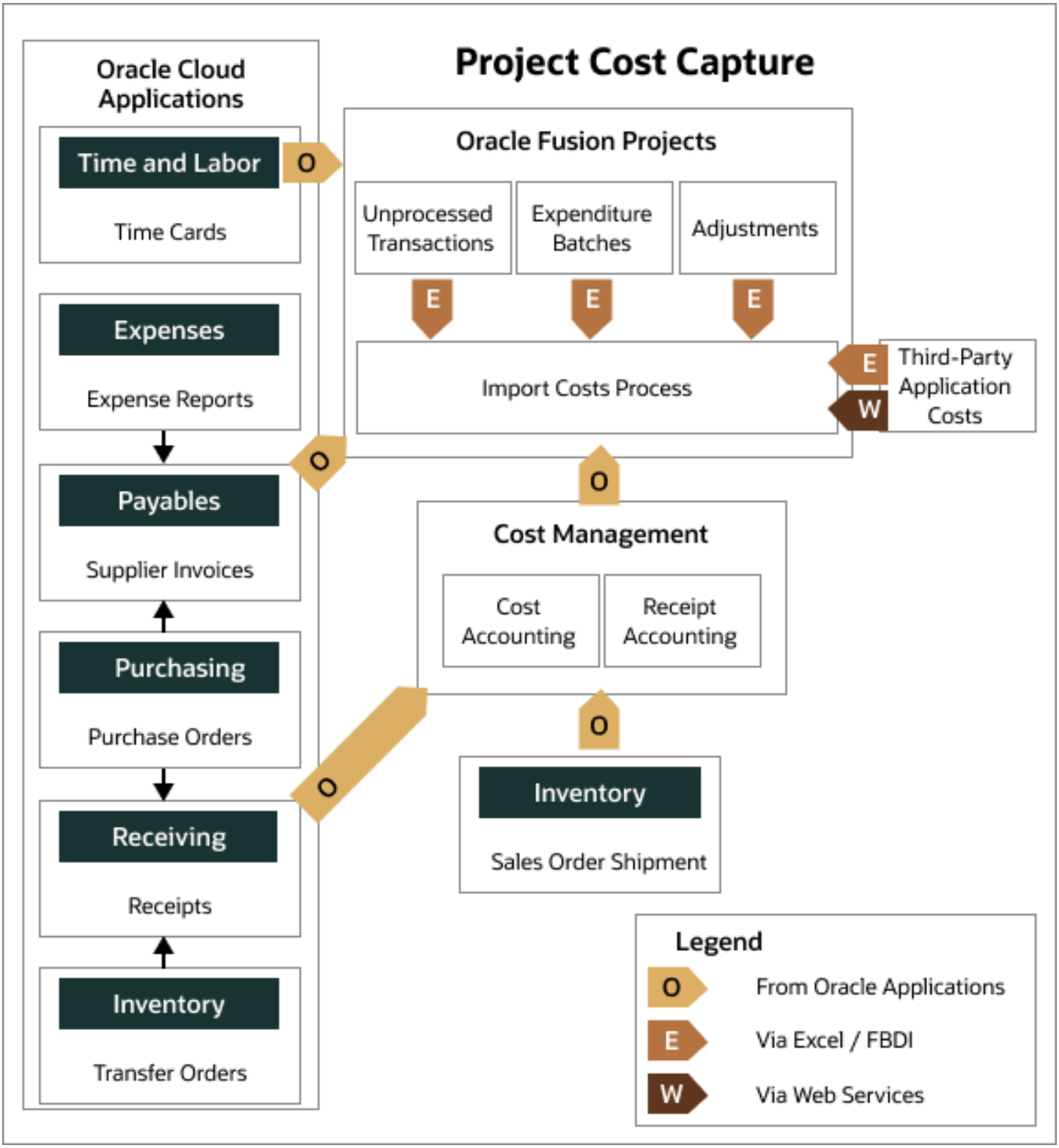
Transaction Sources

Here's a table that lists the cost types and the corresponding source applications.

Source Name	Transaction Type
Oracle Payables	• Supplier invoice • Self-Assessed Tax Create self-assessed tax transactions from Payables as payable commitments in Projects.
Oracle Purchasing	• Self-Assessed Tax Create self-assessed tax transactions from Purchasing as PO commitments in Projects. • Purchase Orders • Purchase Requisitions Purchase orders and purchase requisitions are available as committed costs for reporting in Projects.
Oracle Cost Management	• Expense-Based Receipts • Inventory Miscellaneous Transactions • Inventory Movement Requests
Oracle Projects	• Costs in Unreleased Expenditure Batches • Adjustment Transactions • Unprocessed Transactions
Third-Party Applications	External costs imported using Desktop-Excel Integration, web services, or the Oracle Cloud interface.

How Costs are Captured

Here's a figure that illustrates how you can capture different types of costs from internal and external applications, and then transfer them to Projects.


Project Cost Capture
Oracle Cloud Applications
Time and Labor
Time Cards
Expenses
Expense Reports
Payables
Supplier Invoices
Purchasing
Purchase Orders
Receiving
Receipts
Inventory
Transfer Orders
O
Oracle Fusion Projects
Unprocessed Transactions
Expenditure Batches
Adjustments
E
E
E
Import Costs Process
E
W
Third-Party Application Costs
O
O
Cost Management
Cost Accounting
Receipt Accounting
O
Inventory
Sales Order Shipment
Legend
O
From Oracle Applications
E
Via Excel / FBDI
W
Via Web Services

Here's a table that shows how you can export transactions from various sources to Oracle Projects.

Source of Cost Transactions	Description
Other Oracle Cloud applications	Enter and process project-related transactions, and then submit the Import Costs process. For example, you enter invoices with project-related distributions in Oracle Payables. You can then validate, account, and import them to Oracle Projects.
Third-party applications	Import costs using one of the following: • Desktop-Excel integration • Web services • Load data to the interface table in Oracle Cloud You can load data to interface tables using predefined templates and the Load Interface File for Import scheduled process, which are both part of the External Data Integration Services for Oracle Cloud feature. For more information, see the File Based Data Import guide for your cloud services.
Individual third-party transactions created in Oracle Projects	You can create individual transactions with a third-party application source directly from the Manage Unprocessed Costs page in the Costs work area. Let's say you're approaching period close and have to create a few third-party transactions. Rather than wait to receive the transactions from the third-party application, you can create them directly using this method.

Foreign Keys to Important PJC_EXPENDITURE_ITEMS_ALL Table Fields

Here is a table that lists the foreign keys of the ORIGINAL_HEADER_ID, ORIGINAL_DIST_ID, and ORIGINAL_LINE_NUMBER fields in the PJC_EXPENDITURE_ITEMS_ALL table in some of the most commonly-used transaction sources and documents.

Source / Document	ORIGINAL_HEADER_ID	ORIGINAL_DIST_ID	ORIGINAL_LINE_NUMBER
Column Attribute / Key Description	NA	NA	NA
Oracle Payables / Supplier invoice / Expense report / Intercompany invoice / Interproject Invoice	AP_INVOICES_ALL.INVOICE_ID	AP_INVOICE_DISTRIBUTIONS_ALL.INVOICE_DISTRIBUTION_ID	AP_INVOICE_LINES_ALL.LINE_NUMBER
Oracle Payables / Payments	AP_INVOICE_PAYMENTS_ALL.INVOICE_PAYMENT_ID	AP_PAYMENT_HIST_DISTS.PAYMENT_HIST_DIST_ID	NA
Oracle Cost Management / Purchase Receipt	CMR_RCV_TRANSACTIONS.EXTERNAL_SYSTEM_REF_ID (Expense)	CMR_RCV_DISTRIBUTIONS.CMR_SUB_LEDGER_ID (Expense)	NA
	CST_TRANSACTIONS.TRANSACTION_ID (Inventory)	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID (Inventory)	NA

Source / Document	ORIGINAL_HEADER_ID	ORIGINAL_DIST_ID	ORIGINAL_LINE_NUMBER
Oracle Fusion Cost Management / Miscellaneous Inventory	CST_TRANSACTIONS.TRANSACTION_ID	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID	NA
Oracle Fusion Cost Management / Sales Order Issue	CST_TRANSACTIONS.TRANSACTION_ID	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID	NA
Oracle Fusion Cost Management / Transfer Order Delivery	CMR_TRANSACTIONS.TRANSACTION_ID (Expense)	CMR_RCV_DISTRIBUTIONS.CMR_SUB_LEDGER_ID (Expense)	NA
	CST_TRANSACTIONS.TRANSACTION_ID (Inventory)	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID (Inventory)	NA
Oracle Fusion Cost Management / Work Order	CST_TRANSACTIONS.TRANSACTION_ID (Material Transaction)	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID	NA
	CST_RESOURCE_TRANSACTIONS.RESOURCE_TRANSACTION_ID (Resource Transaction)	CST_COST_DISTRIBUTION_LINES.DISTRIBUTION_LINE_ID	NA
Oracle Time and Labor	HWM_TM_REC_GRP.PARENT_TM_REC_GRP_ID	HWM_TM_REC_GRP_USAGES.TM_REC_VERSION	HWM_TM_REC.TM_REC_ID

Capturing Additional Transaction Attributes

You can capture project-specific attributes on actual cost and commitment transactions using the Cost Collection flexfield. Manage naming, validation, and ordering of these attributes within each of the documents that capture them, such as expense reports and purchase orders. You can capture, store, display, search, and report project-related attributes in the transaction source applications.

Enable Accounted Costs Import for Closed Project Periods

Import accounted costs even when the project period is closed, and account the applicable burden cost and accrued revenue in the next open period.

To enable accounted costs import when project periods are closed:

1. Open the **Manage Project Transaction Source** task in the Setup and Maintenance work area.
2. In the Manage Project Transaction Sources page, select the **Transaction Source**. The list of documents in the transaction source that you selected appears in a section below the list of project transaction sources.
3. Select the **Transaction Document** and click **Edit**.

4. Enable the **Import accounted cost when project periods are closed** option.
5. Click **Save and Close**.

The **Import accounted cost when project periods are closed** option will only be available when the **Accounted in Source Application** entry is one of the following:

- Raw
- Raw and burdened
- Raw and burden
- Raw, burden, and burdened

Note: Burden costs associated with imported transactions are accounted in the same accounting period as the raw cost if the General Ledger accounting period is open. If you import transactions at a time when the General Ledger accounting period is closed, you must sweep the accounting events generated to the next period.

Time and Labor and Project Costing Integration Setup

Time and Labor managers and administrators, and application implementation consultants can enable employees, contingent workers, and team members to enter project time by creating new objects for them or adding them to existing user groups.

They can also restrict the list of visible projects for time entry.

Entering Project and Payroll Time on a Single Time Card

The following table lists the various delivered objects that Time and Labor managers and administrators can use to allow entry of project and payroll time on a single time card.

Object Type	Delivered Object
HCM User Group	Projects and Payroll Usage
Time Entry Profile	Projects and Payroll Time Entry Profile
Time Processing Profile	Projects and Payroll Time Processing Profile
Layout Set	Projects and Payroll Layout Set

Entering Time for Assigned Projects

Time and Labor managers and administrators can use the following objects to enable team members to enter time only for the projects to which they're assigned.

Object Type	Delivered Object
HCM User Group	Projects Usage

Object Type	Delivered Object
Layout Set	Projects Layout Set Filtered by Project Team Members

To enable team members to enter time only for their projects, new time entry and time processing profiles must be created.

Restricting the List of Projects for Time Entry

Time and Labor managers and administrators can restrict the list of visible projects for which resources can enter time.

The list of projects in Time and Labor can be restricted by:

- Team Members: Team members can view and enter time for only those projects that they're assigned to.
- Transaction controls: Only those resources that are added to the project transaction control can view and enter time for the project.

Related Topics

- Enable Team Members to Enter Project Time

Project-Related Accounts Derivation for Oracle Applications

Account rules specify how the Account Combination is derived on subledger journal entry lines. You can specify the conditions under which a rule becomes applicable. Using this feature, you can develop complex rules for deriving accounts under different circumstances.

Accounts imported from third-party applications or the Oracle Application Desktop Framework Desktop Integration are available as sources in Oracle Fusion Subledger Accounting.

You can optionally create account rules with your specifications. If you define an account rule for an account combination, then the rule determines each segment of the Accounting flexfield. If you define an account rule for a segment, then the rule determines the value for a single Accounting flexfield segment. You can use both segment and account combination rules to derive a single account. If you assign both types of account rules to a single journal line definition, then Oracle Fusion Subledger Accounting uses the account segment rules first and then takes the remaining values from the account combination rule.

Deriving Projects-Related Accounts

The only method to derive project-specific accounts is to use project sources in the accounting method. You define account rules to derive project-related accounts for the following Oracle Fusion applications:

- Oracle Fusion Purchasing: Project-specific accounts, such as the purchasing charge account and accrual account, are derived by using transaction account derivation rules

- Oracle Fusion Cost Management: All project-specific accounts are derived during accounting creation in Oracle Fusion Subledger Accounting.
- Oracle Fusion Payables: The project-specific accounts are not derived until the journal entries are created within Oracle Fusion Subledger Accounting. Oracle Fusion Expenses need not derive project-specific accounts because they are derived after the records are transferred to Oracle Fusion Payables.
- Oracle Fusion Receivables: AutoAccounting generates a default account for invoices originating from Oracle Fusion Project Billing. This default account isn't based on the contract. If you need a contract-specific account, you must set up account rules in Oracle Fusion Subledger Accounting to override the default account when the final accounting is performed by Oracle Fusion Receivables.

You must update the account rules to derive project-specific accounting. Create project-specific rules by evaluating the Project Identifier. Derive a project-specific account combination or override a single account segment with a project-specific value. Use more than 100 project-specific sources to create mapping sets and account rule conditions. Examples of these sources include:

- Billable Indicator
- Capitalizable Indicator
- Retirement Indicator
- Project Type
- Expenditure Type
- Expenditure Type Descriptive Flexfield Attribute 1
- Task Descriptive Flexfield Attribute 1

Related Topics

- Account Rules
- Project Costing Accounts for Budgetary Control

How can I enable budgetary control for project-specific procurement for an inventory or work order destination?

To enable budgetary control for project-specific procurement for an inventory or work order destination:

1. Navigate to the **Manage Budgetary Control** task in Functional Setup Manager. The Manage Budgetary Control and Encumbrance Accounting page appears.
2. Scroll down to the Ledger and Business Unit Options section. This section lists out all the ledgers created in Projects and displays their properties. For example, the **Budgetary Control Enabled** column indicates whether budgetary control has been enabled for a ledger.
3. Search for your **Ledger** or **Business Unit** using the search options provided above each column.
4. Select the record that must be updated and click the **Edit** icon. The Edit Budgetary Control and Encumbrance Accounting page appears.
5. Enable budgetary control for the ledger, business units assigned to the ledger, and the project accounting business function. The page refreshes to display additional controls.
6. Click the **Transaction Type Details** icon adjacent to the **Requisitioning** business function. Enable budgetary control and encumbrance accounting for the following **Requisitioning** transaction subtypes:

- **Project direct purchase work order** for direct purchases made to a work order destination from a project-referenced manufacturing or maintenance work order.
- **Project purchase requisition to inventory** for project-referenced requisition with an inventory destination.
- **Requisition back to back** for back-to-back orders.

7. Click **OK**.
8. Enable budgetary control and encumbrance accounting for these **Procurement** transaction subtypes:
   - **Project purchase order to inventory** for project-referenced purchase orders with an inventory destination.
   - **Project work order purchase order** for direct purchases made to a work order destination from a project-referenced manufacturing or maintenance work order.
   - **Project order back to back** for back-to-back orders
9. Click **OK**.
10. Click **Save and Close** in the Edit Budgetary Control and Encumbrance page, and **Save and Close** in the Manage Budgetary Control and Encumbrance page.

This feature also makes available two new journal line rules for encumbrance accounting in Project Costing: **Same Line Project Encumbered Burden Cost Liquidation for PO** for same line burdening enabled projects, and **Separate Line Project Encumbered Burden Cost Liquidation for PO** for separate line burdening enabled projects. They are already available in the Inventory Cost and Burden Cost seeded journal entry rule sets. However, if your ledger is assigned with a user-defined subledger accounting method, add these new journal line rules to your rule sets and recompile your subledger accounting method for encumbrances to be accounted successfully for project-specific purchases to an inventory or work order destination. For guidance on working with journal line rule sets and rules, see Manage Journal Entry Rule Sets and Manage Journal Line Rules sections in the Implementing Subledger Accounting guide.

FAQs for Budgetary Control Integration

Can I perform budgetary control validation for cross-charge transactions?

The application performs budgetary control validation in context of the transaction ledger and expenditure business unit.

If you enable budgetary control for the transaction ledger and business unit, then budgetary control validation is performed against project control budgets if the project control budgets also exist in the same ledger.

FAQs for Purchasing Integration

Where do I provide project information for project-related requisitions and supplier invoices?

You enter project information at the distribution line level for project-related requisitions and purchase orders in Oracle Fusion Purchasing, and for project-related supplier invoices in Oracle Fusion Payables.

For requisitions, the requisition distribution attributes default from what is specified during the implementation. For purchase orders, the purchase order attributes default from the purchase order line and the purchase order line attributes default from the purchase order header. The distribution level values are used for validation and import.

FAQs for Payables Integration

How can I validate distribution sets for projects information?

Oracle Fusion Projects performs validations on Oracle Fusion Payables distribution sets for payables invoices at the time you create the actual distribution set lines. It validates the project and task number during the invoice validation.

Distribution sets are typically used on recurring transactions, and the associated project does not have transaction controls. When you create a distribution set in Oracle Fusion Payables, the distribution set line is not validated against the project transaction controls in Oracle Fusion Projects because you do not enter an expenditure item date, which is required for transaction control validation. The expenditure item date is not provided because you use the distribution sets for an indefinite period of time.

Related Topics

- Where do I provide project information for project-related requisitions and supplier invoices?

FAQs for Inventory Integration

How can I define bill rates for inventory items?

You can enter cost markups in the nonlabor rate schedule instead of rates for expenditure types that are related to inventory items.

Alternatively, if you enter a bill rate for an expenditure type that relates to inventory items, then the base unit of measure for inventory transactions reported under the expenditure type must be the same as the unit of measure for the

expenditure type. If the base unit of measure for an inventory transaction differs from the unit of measure for the expenditure type, the Generate Revenue process reports an error and doesn't process the transaction.

26 Project Billing Configuration: Overview

Overview of Project Billing Configuration

In the Define Project Billing Configuration activity, you configure enterprise contracts and project billing components to invoice customers and recognize revenue for project contracts in Project Financial Management.

The following table lists the essential setup tasks in the Define Project Billing Configuration activity.

Name	Description	Type
Define Contracts Configuration for Project Billing	Define and manage setup related to project contracts including contract types and content that can be used consistently across contracts.	Task list
Manage Contract Layout Templates	Create and maintain layout templates used to preview or print contract documents.	Task
Manage Contract Types	Create and maintain contract types to specify properties of different contracts such as the type of permitted contract lines, party roles, contract validation checks, and the contract acceptance and signature requirements.	Task
Specify Customer Contract Management Business Function Properties	Specify and manage currency conversion rules, project billing rules and default values, adoption rules for contract standards and policies, and other contract management functions.	Task
Define Project Contract Parties	Create and maintain parties for use on a contract.	Task list
Define Project Contract Roles	Define the roles for parties and contacts on a contract.	Task list
Define Project Contract Types and Lookups	Define and manage types and lookup values used on contracts, such as contract types, risks, and hold reasons.	Task list
Define Project Contract Business Unit Options	Configure the business unit implementation options used in Oracle Fusion Enterprise Contracts.	Task list
Define General Project Billing Setup	Enable project billing, manage the general project billing setup, and configure the project billing business unit options.	Task list

Name	Description	Type
Define Project Billing Common Reference Objects	Review and manage common objects, for example value sets and messages, that are used by Oracle Fusion Project Billing.	Task list
Manage Project Billing Descriptive Flexfields	Define validation and display properties of descriptive flexfields, which are used to add attributes to Oracle Fusion Project Billing.	Task
Manage Project Types: Billing Indicator	Review and update project types to indicate whether the project type is billable.	Task
Manage Work Types: Billing Indicator	Review and update work types to indicate whether the work types are billable.	Task
Manage Billing Cycles	Create billing cycles to control how often and on which dates a project is billed.	Task
Manage Event Types	Configure options used to control how billing events are entered, processed, accounted, and reported. Billing events are used as source transactions, representing milestones or progress, in the generation of invoices and revenue for fixed-price contract lines.	Task
Manage Revenue Methods	Create revenue methods used to recognize revenue.	Task
Manage Invoice Methods	Create invoice methods used to calculate the invoice amount.	Task
Define Project Billing Business Unit Options	Configure the customer contract management business function options used in project billing.	Task list

Refer the following guides for more information:

- Implementing Enterprise Contracts
- Implementing Receivables Credit to Cash
- Implementing Subledger Accounting
- Implementing Tax

Related Topics

27 Project Billing Configuration: Configure Contracts for Project Billing

Define Document Sequences

Document Sequences

You can assign a document sequence number to each business document or business event to uniquely identify it. For example, you can assign a document sequence number to an invoice that gets generated in response to a purchase order.

However, you must enable the document sequencing option for that business document or event to start assigning the number. A document sequence number is useful in tracking completed or failed transactions.

You can set up document sequencing in three different modes:

- Automatic
- Manual
- Gapless

> **Note:** Plan your document sequencing carefully before you start applying sequence numbers. Avoid switching to a different mode after you saved your work on the Manage Document Sequences and Manage Document Sequence Categories pages.

Automatic Sequencing

Automatic document sequencing assigns a unique number to each document automatically when the document is generated. That unique number is stored in the database. You can set an initial value for the numbering sequence. Thereafter, the numbering is sequential by date and time of creation. If you don't provide an initial value, the application sets the default initial value as 1.

However, you might notice gaps in the numbering sequence because automatic sequencing isn’t gapless.

Manual Sequencing

Use the manual sequencing mode to assign a unique number to each document before the document is generated. In manual sequencing, the numeric ordering and completeness of a transaction isn't automatically enforced. As a result, users can skip or omit numbers when entering the sequence value. However, each time a user assigns a number, the application validates its uniqueness.

Gapless Sequencing

Gapless sequencing is similar to automatic sequencing. It automatically generates a unique number for each document, but does that only for successfully generated documents. Sequence numbers aren't assigned to incomplete or failed documents. As a result, the sequence is maintained for all the successfully generated documents.

Additionally, you can control the gapless document sequencing by enforcing the Transaction Date Validation option. When enabled, this option checks for the transaction date of a particular document and assigns the sequence number accordingly, to chronologically maintain the documents. The sequence numbers and the transaction dates are chronologically correlated to prevent any mismatch of a new document sequence assigned to an older document or an older document sequence assigned to a new document.

> **Note:** Use this type of sequencing only if necessary because it may affect the performance of the application and slow down transaction processing.

Related Topics

- Guidelines for Managing Document Sequences
- Modules in Application Taxonomy

Document Sequence Categories

A document sequence category is a set of documents that share similar characteristics and that are formed into a logical group. Document sequence categories simplify the task of assigning number sequences to specific documents.

Instead of assigning a number to each document, you assign a document sequence to one or more document sequence categories. The document sequence category automatically takes care of numbering the documents.

A document sequence category identifies the database table that stores documents resulting from transactions that your users enter. When you assign a sequence to a category, the sequence numbers the documents that are stored in a particular table. You must create document sequence categories to be able to manage the task of assigning document sequences.

> **Note:** Once a document sequence category is created, you can't change the application, the category code, or the table name. Therefore, carefully consider these details and plan your document sequencing requirement before you begin working with the application.

Once you create a document sequence category, it's available for use in the **Document Sequences: Assignments** section on the Manage Document Sequences page. The **Category** field contains the name of the document sequence category. After you create a document sequence, you can assign it to a document sequence category.

Guidelines for Managing Document Sequences

Sequencing documents is an important business and legal requirement. Therefore, you must first decide the appropriate document sequence to use for a set of documents. Before you begin, here are a few prerequisites:

- Determine beforehand the mode of document sequencing, because you can't switch to other types once a sequence is in use.
- Note details such as the document sequence and document sequence category, for later reference.
- Identify if there are any restrictions or configuration prerequisites.

Note: Products that implement document sequencing have specifications about its usage. See the corresponding product documentation for specific details and also to identify if there are any restrictions or configuration prerequisites.

Creating and Editing Document Sequences

You can create document sequences that are automatic, manual, or gapless, depending on the business or legal requirement. By default, the current date is considered as the start date. The sequence definition never expires if you don't provide an end date. Among the several options used in creating and editing document sequences, the following options are functionally more important and therefore must be carefully identified:

- **Determinant Type**: Select to limit the document sequencing activity to certain documents that belong to a specific business entity, such as Ledger, Tax Registration, and so on.
- **Initial Value**: Enter a value for the first document in your sequence. This field applies only to sequences with automatic or gapless numbering types. Sequence numbers must not be more than 11 digits. If you leave this field blank, the first document is automatically assigned a value of 1. Once a document sequence is defined, you can't change this initial value.

Note: The **Display Message?** checkbox is deprecated. However, it might be visible on the page, to support legacy values.

Creating and Editing Document Sequence Categories

Document sequence categories are defined to make it easy to assign document sequence definitions to a group of documents instead of to individual documents. Each document sequence category is mapped to a specific table, where the documents belonging to that category are stored. When specifying the table, you must consider the following points:

- When the sequential numbering feature checks for completeness or generates a report, it finds the category's documents in the table.
- Select only those tables that belong to the application associated with the category.
- Once a category is defined, you can't switch to another table.

Assigning Document Sequences

Identify the documents to be numbered before assigning them a document sequence. For each document sequence, there can be only one active assignment to a document sequence category, and a determinant value (if applicable). As part of the assignment, specify whether the document is created automatically (for example, due to a batch process, or manually through a form). If you don't specify an end date, the assignment continues to remain active throughout the process cycle. If a determinant type was specified for the document sequence, then enter a specific determinant value related to the determinant type.

At runtime, when users create documents, the document sequence to be assigned is decided based on the following:

- An active assignment that matches the correct combination of category
- The numbering method
- The date range containing the transaction date

Auditing Document Sequences

You can audit document sequences, if required, to provide an audit trail of the changes made to the document sequence definitions. To do so, an administrator must enable auditing for the application in which document sequences are used, from the **Manage Audit Policies** page. After auditing is enabled for the application, use the **Audit Reports** work area to view the results.

In addition to the application level auditing, you can also enable auditing to provide an audit trail of the document sequences used in a specific product. This audit captures the document sequence numbers as the numbers are assigned. In the **Manage Document Sequences** page, click the required document sequence name, and select the **Audit** checkbox. When the document sequence is updated, an entry is added to the FND_DOC_SEQUENCE_AUDIT table. See *Tables and Views for Common Features*.

Related Topics

- Guidelines for Managing Modules in Application Taxonomy

Project Contract Business Unit Options

Contract Components for Internal Billing

To use intercompany billing or interproject billing, your implementation team must configure a number of distinct features within Oracle Fusion Enterprise Contracts. These features work in cohesion with financial and project features to create internal invoices and transfer revenue between organizations.

Contract Type for Intercompany Billing

Select the intercompany billing option on a contract type to identify a contract as enabled for intercompany billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the intercompany payables invoice such as expenditure type, expenditure organization, receiver project, receiver task, and the provider business unit.

Contract Type for Interproject Billing

Select the interproject billing option on a contract type to identify a contract as enabled for interproject billing. This option permits editing of the internal billing options of contracts of that contract type. These internal billing options include the attributes required to create the interproject payables invoice such as expenditure type, expenditure organization, receiver project, and the receiver task.

Contract Business Unit Internal Billing Options

Review and update the customer contract management business function options to control the processing of interproject billing. The following table describes the internal billing options that you must define for the contract business unit.

Feature Name	Description
Invoice Numbering Method	• If you want to enter invoice numbers manually, select the manual option and either the alphanumeric or numeric invoice number type. • If you want the application to create invoice numbers automatically, select the automatic option, and enter a starting invoice number.
Invoice Batch Source	Specify the invoice batch source for the interproject contract invoices that are transferred to Oracle Fusion Receivables.

Contract Line and Receiver Project

After you create an internal contract, link a contract line to the receiver project and task. This allows for the cross-charge transactions that are charged to the project and task to be billed from the provider business unit to the receiver business unit.

By default, the receiver project is also the associated project for the contract line, and you can't add another associated project or change the associated project for that contract line. However, the associated task and receiver task can be different, so you can select another associated task for the project if necessary.

The receiver project must have the same legal entity as the internal customer.

> **Note:** Only one receiver project can be linked to a contract line. The intercompany invoice generation process automatically groups invoice lines by the contract lines. Interproject invoices have a fixed format.

Accounts Receivable Transaction Type for Internal Billing

You can choose to set the Open Receivables or Post to GL indicators on the Accounts Receivable Transaction Type setup to Yes or No for intercompany and interproject contracts.

Deselect the Open Receivables indicator on the Receivables Transaction Type if you want to transfer funds to clear balances, rather than paying individual invoices. You can also choose to leave the Post to GL indicator unchecked to prevent accounting of these invoices in Oracle Receivables.

Related Topics

- Project Components for Internal Billing
- Why can't I see the internal billing details on a contract?
- Example of an Intercompany Billing Contract

Project Components for Internal Billing

To use the intercompany billing or interproject billing functionality, your implementation team must configure a number of distinct features within Oracle Fusion Projects. These features work in cohesion with contract and financial features to create internal invoices and revenue transfers between organizations.

Invoice Formats

Define internal invoice formats for invoices generated by intercompany or interproject billing contracts. The invoice formats control the grouping of transactions on invoice lines for intercompany contracts. Specify the grouping options to summarize expenditure items and events, and the fields that should be displayed on the invoice line. Create different invoice formats for intercompany labor, nonlabor, and event billing.

If you want the invoice format to be used for both customer and internal invoices, enable the invoice format for customer invoices and internal invoices.

> **Note:** All internal invoices must have a fixed format. Enable the fixed format feature to prevent the rearranging or regrouping invoice line details on intercompany invoices.

Invoice Methods and Revenue Methods

Define invoice methods and revenue methods to determine the calculation method of invoice and revenue amounts for intercompany contracts during invoice generation and revenue recognition. Enable the invoice methods and revenue methods for intercompany billing.

Select from the following labor and nonlabor schedule types that are available for rate-based intercompany invoice generation and revenue recognition:

- Bill rate
- Burden rate
- Transfer price
- Cost reimbursable

Billing Resource Breakdown Structure

Enter resource formats and resource types for the intercompany billing resource structure that is shared by business units. This billing resource breakdown structure defines the types of resources that can be referenced on billing controls for intercompany and interproject contracts.

Receiver Project

Create a receiver project in the receiver business unit.The receiver project can be a project that is linked to both and external contract (for external billing) and intercompany contract (for creating internal cross-charge transactions). The receiver business unit receives the supplier invoices.

Each receiver project can receive invoices from multiple internal contracts or from multiple contract lines of the same contract.

Enable the tasks on the receiver project that can be used for interproject billing and to allow cross-charge transactions.

Provider Project

Create a provider project to use during interproject billing. Each receiver project can have one or more provider projects. The provider project can be in the same business unit or a different business unit as the receiver project.

Expenditures are charged to the provider project during interproject billing scenarios.

Related Topics

- Invoice Formats
- Contract Components for Internal Billing

FAQs for Project Contract Business Unit Options

Can I create a contract for intercompany billing with transfer price rules?

Yes, but only if you derive rates for an intercompany contract based on an organization hierarchy structure instead of the bill rates defined on a bill plan.

The contract line and bill plan architecture lets you specify a different bill plan for each provider and receiver organization. Select a bill rate or burden rate schedule for each of your contract bill plans. However, if your rates are defined at a granular level, you may need to derive rates for an organization hierarchy structure using transfer price rules.

28 Project Billing Configuration: General Project Billing Setup

Invoice and Revenue Method Components

Invoice methods and revenue methods control the way you create invoices and recognize revenue for contracts. During implementation you create the methods and assign them to bill plans and revenue plans.

Any contract or contract line that uses the bill or revenue plan calculates the invoice or revenue amount according to the instructions in the invoice or revenue method.

Method Classification

Invoice method classifications and revenue method classifications are predefined by Oracle Fusion Project Billing. Select an invoice or revenue method classification to set the approach for calculating invoice or revenue amounts.

The following table describes the different invoice method classifications.

Invoice Method Classification	Description
Amount Based	Generate invoices and revenue as billing events are completed.
Percent Complete	Generate invoices as progress is estimated. The percent complete invoice method automatically creates a billing event using an inception-to-date formula based on the calculation level in the bill plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Percent Spent	Generate invoices as progress is calculated, based on actual cost to date over budget cost. The percent spent invoice method automatically creates a billing event using an inception-to-date formula based on the calculation level in the bill plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Rate Based	Generate invoices as costs are incurred, using an invoice-specific set of bill rates, a burden schedule, or transfer price rates. The cost reimbursable classification method bills on cost directly, without applying any rate or markups.

The following table describes the different revenue method classifications.

Revenue Method Classification	Description
Amount Based	Recognize revenue as billing events are completed.
As Billed	Recognize revenue after invoices are finalized, using a common set of bill rates, a burden schedule, or transfer pricing for both invoicing and revenue.
As Incurred	Recognize revenue as costs are incurred, using a revenue specific set of bill rates, a burden schedule, or transfer pricing for both invoicing and revenue.
Percent Complete	Recognize revenue as progress is estimated. The percent complete revenue method automatically creates a billing event using an inception-to-date formula based on the calculation level in the revenue plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Percent Spent	Recognize revenue as progress is calculated, based on actual cost to date over budget cost. The percent spent revenue method automatically creates a billing event using an inception-to-date formula based on the calculation level in the revenue plan. If the calculation level is contract line, the event is created for the contract and contract line. If the calculation level is associated project, the event is created for the contract line and its associated project and task.
Rate Based	Recognize revenue as costs are incurred, using a revenue-specific set of bill rates, a burden schedule, or transfer price rates. **Tip:** Use this revenue classification method if you are using a fixed price for invoices, or if you require different burden schedules for invoices and revenue.

Intercompany Billing Option

If the invoice or revenue method will be used for intercompany contracts, enable the intercompany billing option to calculate the intercompany invoice or revenue amounts. Intercompany invoices and revenue use a rate-based classification method. Select a labor and nonlabor schedule for use when generating invoices or calculating revenue.

Note: An intercompany contract can use an invoice or revenue method that's not enabled for intercompany billing, or an invoice or revenue method that's enabled for intercompany billing. Enable the intercompany billing option if the invoice or revenue method will be used for intercompany contracts only. Intercompany invoices can use any type of invoice method classification.

Rate Definition

Select schedules for labor and nonlabor if your invoice or revenue method uses a rate-based classification method.

The schedule types for labor are **Person** and **Job**.

Invoice and Revenue Method Classifications

Only bill plans and revenue plans with certain combinations of invoice and revenue method classifications can be used on the same contract line.

If you add a bill plan and revenue plan with an invalid invoice and revenue method classification to the same contract line, you will receive an error message when you submit the contract for approval.

The possible revenue method classifications are:

- Amount based
- As incurred
- As invoiced
- Percent complete
- Percent spent
- Rate based

The possible invoice method classifications are:

- Amount based
- Rate based
- Percent complete
- Percent spent

Invoice and Revenue Method Combinations

Valid bill plan and revenue plan combinations for a contract line are dependent on the invoice method classification and revenue method classification. Most invoice method and revenue method classifications are valid. The following table describes the invalid combinations.

Revenue Method Classification	Invoice Method Classification	Valid Combination?
As incurred	Amount based	No
As incurred	Percent complete	No
As incurred	Percent spent	No
As invoiced	Amount based	No
As invoiced	Percent complete	No
As invoiced	Percent spent	No

Revenue Method Classification	Invoice Method Classification	Valid Combination?
Rate based	Rate based	Yes, but a burden schedule is required for the bill plan and revenue plan.

Note: After the contract is approved, any changes to the bill plan including the revenue or invoice method classification must go through the change management process.

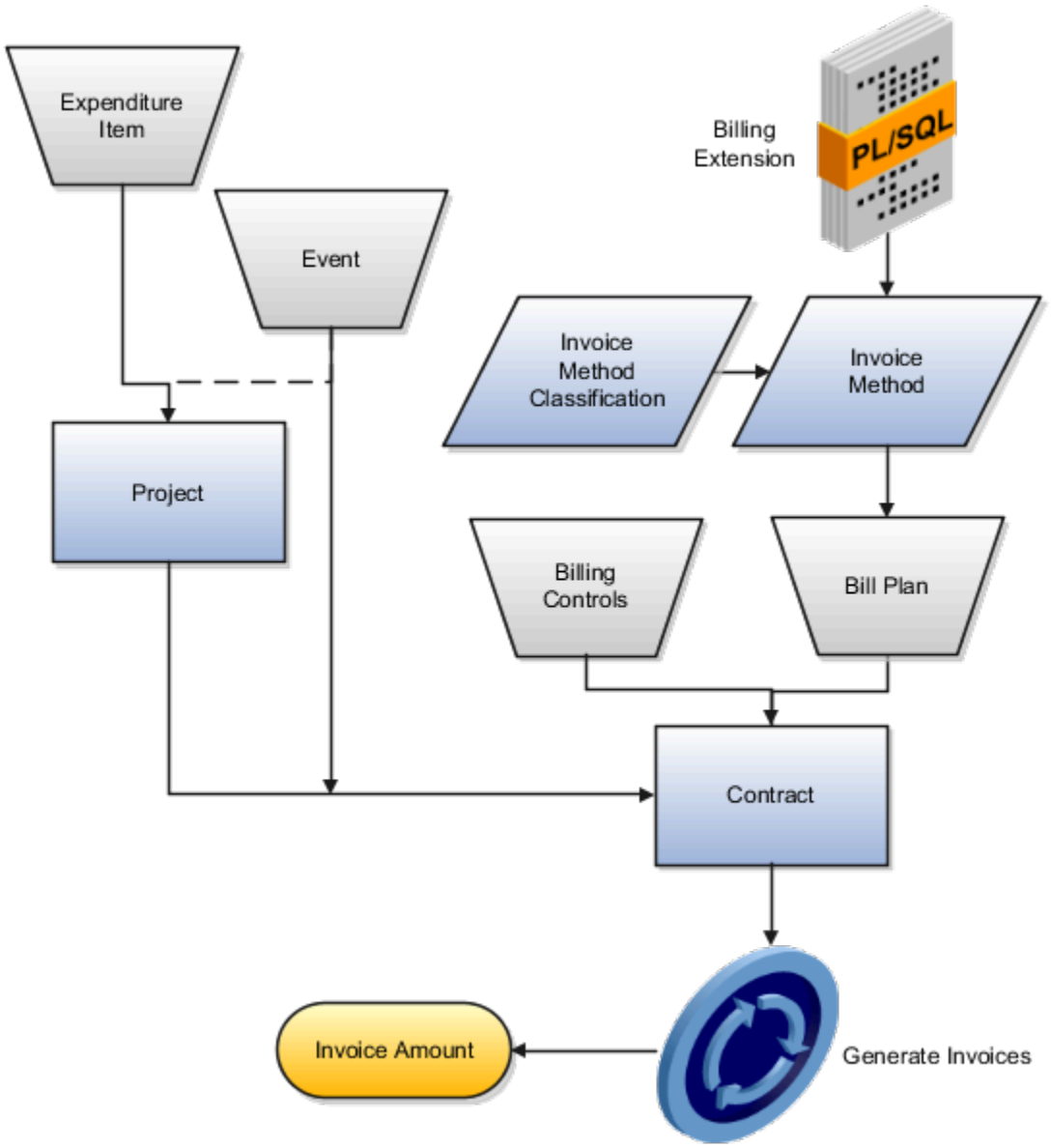
Project Invoicing Options

How Project and Contract Invoice Components Work Together

Project and contract components work together to create invoice distributions. The contract contains the instructions for calculating billing invoice amounts, and the project owns the cost transaction details. When you generate an invoice, invoice distributions are created for the contract.

Expenditure items and events are the transactions for projects and contracts. Invoice method classifications determine how transactions are invoiced. The invoice method determines how invoice amounts are derived. Enter an invoice method on a bill plan, which you create for a contract and assign to contract lines to provide a set of instructions for creating an invoice.Create billing controls for a contract or contract line to define the valid transaction dates, billing resources, and amount limits for transactions associated with the contract.Generate invoices to calculate the invoice amounts for a contract.The following figure illustrates the components of

a project and a contract that determine invoice amounts, and the relationships between the components.



Invoice Method Classification

Assign a predefined invoice method classification to an invoice method. The invoice method classification determines whether the invoice amount is calculated based on rates, amounts, or progress.

Invoice Method

Create invoice methods for bill plans to use for determining the approach for generating invoice amounts. The invoice methods contain invoice generation instructions in the form of the invoice method classification and rate definition schedule types. Rate definition schedule types determine whether the rate source for invoicing comes from rate schedules, burden schedules, or transfer price schedules.

You must assign an invoice method to a bill plan, which contains the invoice generation instructions for a specific contract or contract line. An invoice method can be used by more than one bill plan.

CAUTION: Enable the invoice method for intercompany billing if it will be used for intercompany billing only.

Bill Plan

Create a bill plan within a contract that uses the invoice method you require. Assign the bill plan to one or more contract lines.

Oracle Project Billing doesn't create new invoices for:

- Contracts on hold
- Contract lines on hold
- Contract lines with a bill plan on hold

Previously generated invoices can still be updated, submitted for approval, approved, rejected, released, and transferred when the contract, contract line, or bill plan is on hold.

Billing Control

A billing control defines the types of permitted transactions (using billing resources), transaction date range, and maximum invoice (and revenue) amounts for a contract or contract line. Create a billing control within a contract at either the contract or contract line level. The inception-to-date (ITD) invoice amount can't exceed the hard limit amount of a billing control. If the ITD invoice amount exceeds the soft limit, invoice generation will still occur, but you will receive a warning the first time this occurs.

Expenditure Item

The project and task for an expenditure item are matched to the associated contract line during invoice generation. Invoicing can occur if the transaction date, billing resource, and amount for the expenditure item pass the contract billing controls. If the expenditure item is mapped to more than one eligible contract line, the processing order is determined as follows:

- The contract billing sequence determines the processing order of multiple contracts.
- The contract billing controls determine the processing order of multiple contract lines within a single contract.
- The contract contribution percentage determines the eligible invoice amount for each contract line.

Oracle Fusion Project Billing creates a billing transaction for each unique combination of expenditure item and contract line. The billing transaction is the source for creating invoice distributions.

Event

Invoice events are automatically created during invoice generation if the invoice method is percent spent or percent complete. Manual events are also processed during invoice generation. Oracle Fusion Project Billing creates a billing transaction for each automatic or manual event. The billing transaction is the source for creating invoice distributions.

Related Topics

- How Project and Contract Revenue Components Work Together
- Invoice and Revenue Method Components
- Contract Validation

Specify the Unit of Measure for Invoice Lines Sent to Oracle Receivables

The Specify Unit of Measure for Invoice Lines Sent to Oracle Fusion Receivables profile option indicates the unit of measure to use for all invoice lines transferred from Oracle Fusion Projects to Oracle Fusion Receivables.

This profile option is required in order to use Oracle Fusion Project Billing. If you are using Oracle Fusion Projects without Oracle Fusion Receivables, you do not need to set this profile.

Oracle Fusion Receivables requires a unit of measure for each invoice line. Oracle Fusion 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 Fusion Projects.

Note: The internal name for this profile option is PJB_AR_INVOICE_UOM.

Unit of Measure Class

Define a unit of measure class before you define a unit of measure. Oracle Fusion Receivables requires that you associate each unit of measure you define with a unit of measure class. You must define a unit of measure class before you can set the profile option.

Unit of Measure

The default unit of measure value is **Each**. Define a unit of measure of **Each** in Oracle Fusion Receivables to use with this profile option.

Invoice Formats

An invoice format determines how Oracle Fusion Cloud Project Management creates an invoice line. You can define different formats for labor, nonlabor and event invoice line items, and specify if you want to use the format for customer invoices, internal invoices, or both.

Additionally, you can specify 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 invoices, and internal invoice formats only for invoices generated by intercompany and interproject contracts. You can also use an invoice format for both customer and internal invoices.

You configure the following components of an invoice format:

- Format type

- From and to dates
- Grouping option
- Customer or internal invoice option
- Fixed format
- Start and end position
- Text column

Format Type

The format type controls the invoice formats you see for labor, nonlabor and events when you enter invoice formats using the Projects window.

From and To Dates

The from and to dates determine the period during which the invoice format is active.

Grouping Option

A grouping option specifies the way invoice distribution lines are grouped together to form an invoice line.

Customer or Internal Invoice Option

If you are using intercompany or interproject billing, create an internal invoice format to summarize cross-charge transactions. Depending on the requirements of the receiver business units, you may need to define several internal invoice formats. All internal formats automatically have a fixed format.

If you create an internal invoice format, you must select contract line as an attribute. This is to ensure that no two contract lines can be combined into a single invoice line, as they could be tied to different receiver projects or tasks, and would need to be created as separate invoice lines to post to the correct receiver project or task.

Although one invoice format can support both customer and internal invoices, the list of values for the Field Name only includes those values that are shared by the two formats.

Fixed Format

A fixed format prohibits distributions from being moved to other invoice lines. Intercompany and interproject invoices must have a fixed format.

Start and End Positions

The start and end positions are values between 1 and 240 that specify where the text in the Field Name appears on the invoice line.

Text Column

Enter the text in this column that you want to display on the invoice.

FAQs for Project Invoicing Options

What's an invoice method?

Rule defined by the implementation team that determines the calculation method of invoice amounts for contracts during invoice generation.

What's an invoice method classification?

Predefined classification for an invoice method that determines the basis for calculating invoice amounts.

The predefined invoice method classifications are: amount based, percent complete, percent spent, and rate based.

Assign an invoice method classification to an invoice method.

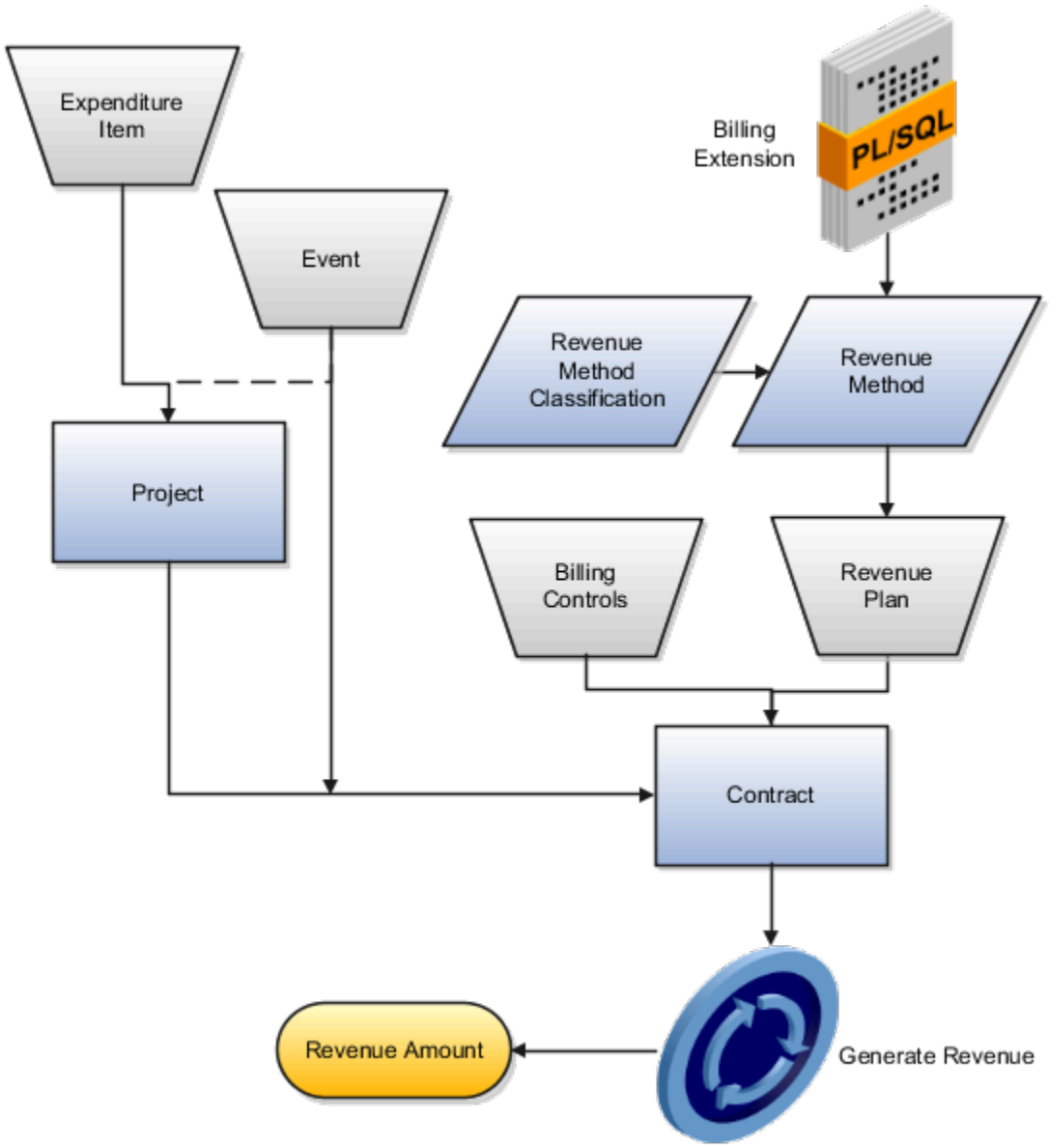
Project Revenue Options

How Project and Contract Revenue Components Work Together

Project and contract components work together to create revenue distributions. The contract contains the instructions for calculating revenue amounts, and the associated project contains the cost transaction details. When you generate revenue, revenue distributions are created for the contract.

Expenditure items and events are the transactions for projects and contracts. Revenue method classifications determine how transactions recognize revenue.The revenue method determines how revenue rates are derived. Enter a revenue method on a revenue plan, which you create for a contract and assign to contract lines to provide a set of instructions for recognizing revenue.Create billing controls for a contract or contract line to define the valid transaction dates, billing resources, and amount limits for transactions associated with the contract.Generate revenue to calculate the revenue amounts for a contract.The following figure illustrates the components of

a project and a contract that determine revenue amounts, and the relationships between the components.



Revenue Method Classification

Assign a predefined revenue method classification to a revenue method. The revenue method classification determines whether the revenue amount is calculated based on rates, amounts, or progress.

Revenue Method

Create revenue methods for revenue plans to use for recognizing revenue. The revenue methods contain revenue recognition instructions in the form of the revenue method classification and rate definition schedule types.

You must assign a revenue method to a revenue plan, which will give the revenue recognition instructions to a specific contract or contract line. A revenue method can be used by more than one revenue plan.

CAUTION: Enable the revenue method for intercompany billing if it will be used for intercompany billing only.

Revenue Plan

A revenue plan contains a set of instructions for recognizing revenue on a contract or contract line. Create a revenue plan within a contract that uses the revenue method you require. Assign the revenue plan to one or more contract lines that are enabled for billing.

Note: Revenue can't be recognized for a revenue plan on hold.

Billing Control

A billing control defines the type of permitted transactions (using billing resources), transaction date range, and maximum invoice and revenue amounts for a contract or contract line. Create a billing control within a contract at either the contract or contract line level. The revenue amount can't exceed the hard limit amount of a billing control. If the revenue amount exceeds the soft limit, revenue recognition will still occur, but you will receive a warning.

Expenditure Item

The project and task for an expenditure item are matched to the associated contract line during revenue generation. Revenue recognition can occur if the transaction date and billing resource for the expenditure item pass the contract billing controls.

If the expenditure item is mapped to more than one eligible contract line, the processing order is determined as follows:

- The contract billing sequence determines the processing order of multiple contracts.
- The contract billing controls determine the processing order of multiple contract lines within a single contract.
- The contract contribution percentage determines the eligible amount of revenue to recognize for each contract line.

Oracle Fusion Project Billing creates a billing transaction for each unique combination of expenditure item and contract line. The billing transaction is the source for creating revenue distributions.

Event

Revenue events are automatically created during revenue generation if the revenue method is percent spent or percent complete.

Manual events are also processed during revenue generation. Oracle Fusion Project Billing creates a billing transaction for each event. The billing transaction is the source for creating revenue distributions.

Related Topics

- Invoice and Revenue Method Components
- Billing Event Components
- Import Project Billing Events

FAQs for Project Revenue Options

What's a revenue method?

Rule defined by the implementation team that determines the calculation method of revenue amounts for contracts during revenue generation.

What's a revenue method classification?

Predefined classification for a revenue method that determines the basis for calculating revenue amounts.

The predefined revenue method classifications are as-billed, as-incurred, amount based, percent complete, percent spent, and rate based.

Assign a revenue method classification to a revenue method.

29 Project Billing Configuration: Project Billing Business Unit Options

Customer Contract Management Business Function Properties

Customer Contracts Business Unit Setup

Using the Specify Customer Contract Management Business Function Properties task, available by navigating to Setup and Maintenance work area and searching on the task name, you can specify a wide variety of business function settings for customer contracts in a specific business unit.

The selections you make for these business functions impact how Oracle Enterprise Contracts behaves during contract authoring.

Using the **Specify Customer Contract Management Business Function Properties** task, manage these business function properties:

- Enable related accounts
- Set currency conversion details

  > **Note:** You must select a default currency in the customer or supplier business function properties page, if not populated automatically from the ledger assigned to the business unit in the assign business function setup task.

- Manage project billing options
- Set up clause numbering
- Set up the Contract Terms Library

  The setup options available for the Contract Terms Library are applicable to both customer and supplier contracts, and are described in the business unit setup topic for the Contract Terms Library. That topic is available as a related link to this topic.

Enabling Related Customer Accounts

Contract authors can specify bill-to, ship-to, and other accounts for the parties in a contract. Enable the related customer accounts option if you want accounts previously specified as related to the contract party to be available for selection.

Managing Currency Conversion Options

If your organization plans to transact project-related business in multiple currencies, then select the multi-currency option. This allows a contract author to override a contract's currency, which is derived from the ledger currency of the business unit. It also enables the contract author to specify currency conversion attributes to use when converting from the bill transaction currency to the contract currency and from the invoice currency to the ledger currency.

In the Bill Transaction Currency to Contract Currency region, enter currency conversion details that will normally be used, by all contracts owned by this business unit, to convert transaction amounts in the bill transaction currency to the contract currency. Newly created contracts contain the default currency conversion values, but you can override the values on any contract, if needed.

In the Invoice Currency to Ledger Currency region:

- Enter invoice transaction conversion details if the invoice and ledger currencies can be different.
- Enter revenue transaction conversion details if the revenue and ledger currencies can be different for as-incurred and rate-based revenue.

Managing Project Billing Options

The options available for selection in the Project Billing region control the behavior of project invoicing and revenue recognition for contracts with project-based work. Project billing can act differently for external contracts (customer billing) or intercompany and inter-project contracts (internal billing).

Set these options, which apply to all contracts:

- Select the **Transfer Revenue to General Ledger** option if you want to create revenue accounting events and entries, and transfer revenue journals to the general ledger. If this option isn't selected, then revenue can still be generated, but won't be transferred to the general ledger.
- Indicate if a reason is required for credit memos that are applied to invoices.

These options exist in two sets - one for customer billing and a second for internal billing:

- Select an invoice numbering method, either **Manual** or **Automatic**. The invoice numbering method is the method that Oracle Fusion Receivables uses to number its invoices, upon release of draft invoices from Project Billing.
    - If the invoice numbering method is **Manual**, then select an invoice number type, which sets the type of Receivables invoice numbers that are allowed. Valid values are **Alphanumeric** and **Numeric**.
    - If the invoice numbering method is **Automatic**, then enter the next invoice number to use when generating Receivables invoice numbers.
- Select the Receivables batch source to use when transferring invoices to Receivables.

Set this option only for customer billing:

- Indicate if you want contract authors to manually enter the Receivables transaction type on the customer contracts they create.

Managing Clause Numbering

You can choose to number clauses manually or automatically.

If you choose the automatic numbering method, you must select a determinant level for the numbering. You must then select the appropriate clause sequence category from document sequences that you set up for this numbering level.

Related Topics

- Contract Terms Library Business Unit Setup

Contract Terms Library Business Unit Setup

You can specify a wide variety of Contract Terms Library settings for customer or supplier contracts within each business unit by using the Specify Customer Contract Management Business Function Properties or the Specify Supplier Contract Management Business Function Properties tasks.

These tasks are available in the Setup and Maintenance work area as part of the Enterprise Contracts offering in the Enterprise Contracts Base functional area.

For the Contract Terms Library in each business unit, you can:

- Enable clause and template adoption.
- Set the clause numbering method.
- Set the clause numbering level for automatic clause numbering of contracts.
- For a contract with no assigned ledger or legal entity, set the document sequence to Global or Business Unit level.
- Enable the Contract Expert enabling feature.
- Specify the layout for printed clauses and contract deviation reports.

Enable Clause Adoption

Do this to use clause adoption in your implementation:

1. Specify a global business unit

   Designate one of the business units in your organization as the global business unit by selecting the **Global Business Unit** option. This makes it possible for the other local business units to adopt and use approved content from that global business unit. If the **Global Business Unit** option isn't available for the business unit you're setting up, it means you have already designated a business unit as global.
2. Enable automatic adoption

   If you're implementing the adoption feature, you can have all the global clauses in the global business unit automatically approved and available for use in the local business by selecting the **Autoadopt Global Clauses** option. If you don't select this option, the employee designated as the Contract Terms Library Administrator has to approve all the global clauses, before they can be adopted and used in the local business unit. This option is available only for local business units.
3. Specify the administrator who approves clauses available for adoption

   You must designate an employee as the Contract Terms Library administrator if you're using adoption. If you don't enable automatic adoption, then the administrator must adopt individual clauses or localize them for use in the local business unit. The administrator can also copy over any contract terms templates created in the global business unit. The clauses and contract terms templates available for adoption are listed in the administrator's Terms Library work area.
4. Adopt global clauses for new business unit

   If you're creating a new local business unit and have to adopt existing global clauses, run the Adopt Global Clauses for a New Business Unit process. Refer to the Enterprise Scheduler processes topic for more information.

Set Up Clause Numbering Options

You can set up automatic clause numbering for the clauses in the business unit by selecting Automatic in the **Clause Numbering** field and setting the clause numbering level. Then select the appropriate clause sequence category for the specified numbering level. You must have previously set up document sequences for the document sequence categories of global, ledger, and business unit. If clause numbering is manual, contract terms library administrators must enter unique clause numbers each time they create a clause.

You can choose to display the clause number in front of the clause title in contracts by selecting the **Display Clause Number in Clause Title** option.

Set Up Consistent Clause Numbering

When you skip numbering and suppress the title for a clause or section, the numbering format may look different when you download the contract. You get the difference in numbering format because your downloaded contract has the numbering format of Microsoft Word. To enable Microsoft Word numbering format for your contract in the Enterprise Contracts UI, you must set the **Consistent Microsoft Word Numbering for Contract Terms Enabled** profile option as **Yes**.

If this profile option is set as **No**, you may see inconsistent numbering when you download the contract as the Microsoft Word document.

Here are the steps to enable the profile option:

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task.
2. On the Manage Administrator Profile Values page, search for and select the **Consistent Microsoft Numbering for Contract Terms Enabled** profile option.
3. Set the profile option to **Yes**.
4. **Save and Close**.

Enable Contract Expert

Select the **Enable Contract Expert** option to use the Contract Expert feature in a business unit. This setting takes precedence over enabling Contract Expert for individual contract terms templates.

Specify Printed Clause and Deviations Report Layouts

For each business unit, you can specify the Oracle Analytics Publisher RTF file that serves as the layout for:

- The printed contract terms

  Enter the RTF file you want used for formatting the printed clauses in the **Clause Layout Template** field.
- The contract deviations report

  The RTF file you select as the **Deviations Layout Template** determines the appearance of the contract deviations report PDF. This PDF is attached to the approval notification sent to contract approvers.

Related Topics

- How Business Unit Affects Clauses and Other Objects in the Library
- How Contract Expert Works
- Contract Printing and Layout Templates

FAQs for Project Billing Business Unit Options

Why can't I locate an invoice?

Access to invoices is secured by the business unit. You only access invoices that belong to contracts in business units assigned to your role. You can see all invoices associated with projects linked to contracts that you can access.

30 Project Billing Configuration: Intercompany Project Billing

Intercompany Balancing Rules

You use Intercompany balancing rules to generate the accounts required to balance journals that are out of balance by legal entity or primary balancing segment values.

Specify the intercompany receivables and intercompany payables accounts that you want to use as the template for building the intercompany receivables and intercompany payables accounts. The intercompany balancing feature then uses these rules to generate the accounts of the balancing lines it creates.

Journals lines are first summarized by the legal entity and are balanced by the legal entity. Since a legal entity can have many primary balancing segment values, it's possible that a journal could have multiple lines for a legal entity with different primary balancing segment values. In that case, when intercompany balancing is done, the lowest primary balancing segment value within each legal entity in the journal is used. After this, balancing occurs across balancing segment values within each legal entity.

These same rules are also used to generate the intercompany receivables account and intercompany payables account of transactions entered in the Intercompany module.

The intercompany balancing rules are also used to generate the intercompany receivables account for the provider side of an intercompany transaction. And balancing rules are also used to generate the intercompany payables account for the receiver side of an intercompany transaction.

> **CAUTION:** After you create an Intercompany balancing rule, you can't modify them. But you can end date an existing rule and create a new rule.

Defining Intercompany Balancing Rules

You can define intercompany balancing rules at these levels:

1. Primary balancing segment
2. Legal entity
3. Ledger
4. Chart of accounts

The rules are evaluated in the order shown. For example, you can define a Primary Balancing Segment rule and a Legal Entity level rule. If both rules can be used to balance a particular journal, the Primary Balancing Segment rule is used, as it has a higher precedence.

You have flexibility in defining your intercompany balancing rules. You can have a simple setup in which you define one rule for your chart of accounts. This rule is used for all intercompany balancing for all ledgers that use this chart of accounts. Alternatively, you can have a more granular set of rules. For example, define a different rule for each legal entity and one chart of accounts rule to cover any gaps. You can gain even more granularity by defining rules for specific journal and category combinations or intercompany transaction types.

Using Chart of Accounts Rules for Intercompany

Use chart of accounts rules for intercompany balancing. You have flexibility in defining your intercompany balancing rules with the setup of a single chart of accounts rule to use for all ledgers that use this chart of accounts. When you create a chart of accounts rule, you specify the chart of accounts, intercompany receivables, and intercompany payables accounts you want to use, as well as the source and category. It is recommended that the intercompany receivables account be an asset type account, and the intercompany payables account be a liability type account.

You can define rules that are applied to a specific source and category, such as Payables and Invoices. Or a specific intercompany transaction type, such as Intercompany Sales. Alternatively, you can choose to create rules for all sources and categories by selecting the source of **Other** and the category of **Other**.

Intercompany Balancing then evaluates the journal source and journal category combination in determining which rule to use for balancing. This is the order of precedence.

- Specific journal source and journal category
- Specific journal source and journal category of Other
- Journal source of Other and specific journal category
- Journal source of Other and journal category of Other

Additional Intercompany Balancing and Clearing Company Options

Additional Intercompany Balancing and Clearing options are used to balance the second balancing segment or the third balancing segment or both, when a transaction is unbalanced by one of these segments but is already balanced by the primary balancing segment. This option is defined for a ledger but you can create rules for various Source and Category combinations.

Additional Intercompany Balancing and Clearing options include these settings:

- Intercompany Receivables and Intercompany Payables accounts: You can use as the accounts as the template to build balancing accounts for balancing segment 2 and balancing segment 3 when the journal is already balanced by primary balancing segment.
- Summarization options: You can choose to summarize lines within a legal entity before balancing lines are generated by choosing the Summary Net option. Alternatively choose the Detail options so lines aren't summarized before balancing within a legal entity. Note that summarization always applies to balancing lines generated in a cross legal entity scenario.
- Clearing company options: Oracle recommends to always set clearing company options to handle many-to-many journals. This avoids balancing failing during General Ledger Posting or Subledger Accounting Create Accounting process.

Clearing Company Options

You can choose to set clearing company options to balance a many-to-many journal. Set these options to manage your clearing company balancing.

- Clearing Company Condition: Choose when to use a clearing company.
    - Use clearing company only for intracompany journals.
    - Use clearing company for all many-to-many journals.
    - Error out if many-to-many journal. The default value for this option.

- Clearing Company Source: Choose how the clearing company value is derived for your balancing lines, from these options:
  - Default clearing balancing segment value.
  - Manually entered clearing balancing segment value. Note that if you select Manually entered clearing balancing segment value, then you must manually enter a value in the create journals screen. This option doesn't work for subledger accounting entries as they don't have a field on the user interface to enter this value.
- Clearing Company Value: If you selected Default clearing balancing segment value for Source, you must select a primary balancing segment value in this field. This value is used to balance your intracompany or many-to-many journals.

Example of Intercompany Balancing Rules

This topic provides examples of intercompany balancing rules and the intercompany balancing lines generated. These rules are used to generate the accounts needed to balance journals that are out of balance by legal entity or primary balancing segment values.

Intercompany Balancing Rules Precedence

In this example the legal Entity InFusion Textiles intercompany manufacturing activities are tracked separately from its non-manufacturing activities. To achieve this, legal entity level rules are defined specifically between the legal entity InFusion Textiles and the two manufacturing legal entities, InFusion Products (East) and InFusion Products (West). A chart of accounts rule is created to cover all other intercompany activities.

Setup

- InFusion USA Chart of Accounts as shown in this table.

Segment Name	Company (CO)	Cost Center (CC)	Division (DIV)	Account (ACCT)	Intercompany (IC)
Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment	Account	Intercompany Segment

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments as shown in this table.

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Chart of Accounts Rule as shown in this table.

Rule Number	Chart of Accounts	AR Account	AP Account	Source	Category	Transaction Type
1	InFusion USA Chart of Accounts	1000 - 000 - 0000 - 13050 - 0000	1000 - 000 - 0000 - 21050 - 0000	Other	Other	None

- Legal Entity Level Rule as shown in this table.

Rule No.	From Legal Entity	To Legal Entity	AR Account	AP Account	Source	Category	Transaction Type
2	InFusion Textiles	InFusion Products (West)	1000 - 000 - 0000 - 13020 - 0000	1000 - 000 - 0000 - 21020 - 0000	Other	Other	None
3	InFusion Textiles	InFusion Products (East)	1000 - 000 - 0000 - 13030 - 0000	1000 - 000 - 0000 - 21030 - 0000	Other	Other	None

- Journal Balancing
  - Journal before Balancing as shown in this table.

Line	Line Type	Legal Entity	CO	CC	DIV	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
2	Expense	InFusion Products (East)	5000	100	1200	52340	0000	200	
3	Expense	InFusion Products (West)	6000	200	1300	52345	0000	300	
4	Liability	InFusion Textiles	4000	500	1300	40118	0000		650

- Journal Balancing
    - Journal after Balancing as shown in this table.

Uses Rule	Line	Line Type	Legal Entity	CO	CC	DIV	ACCT	IC	Debit	Credit
	1	Expense	InFusion Farms	3100	100	1200	52330	0000	150	
	2	Expense	InFusion Products (East)	5000	100	1200	52340	0000	200	
	3	Expense	InFusion Products (West)	6000	200	1300	52345	0000	300	
	4	Liability	InFusion Textiles	4000	500	1300	40118	0000		650
1	5	IC AR	InFusion Textiles	4000	500	1300	13050	3100	150	
1	6	IC AP	InFusion Farms	3100	100	1200	21050	4000		150
3	7	IC AR	InFusion Textiles	4000	500	1300	13030	5000	200	
1	8	IC AP	InFusion Products(Ea	5000	100	1200	21050	4000		200
2	9	IC AR	InFusion Textiles	4000	500	1300	13020	6000	300	
1	10	IC AP	InFusion Products (West)	6000	200	1300	21050	4000		300

Related Topics

- Intercompany Balancing Rules

Example of Additional Intercompany Balancing and Clearing Options

This topic provides examples of additional intercompany balancing and clearing options, the setup required, and the journal before and after balancing.

Additional Intercompany Balancing Segment Options

In this scenario the enterprise has the second balancing segment and the third balancing segment enabled for its chart of accounts. The journal is balanced by primary balancing segment but is out of balance by the second balancing segment and the third balancing segment.

Setup

- InFusion USA Chart of Accounts

This table describes the structure of the InFusion USA chart of accounts.

Segment Qualifier	Primary Balancing Segment	Second Balancing Segment	Third Balancing Segment	Product	Account	Intercompany Segment
Segment Name	Company (CO)	Cost Center (CC)	Division (DIV)	Product (PROD)	Account (ACCT)	Intercompany (IC)

- Ledger, Legal Entity, Primary Balancing Segment Value Assignments

This table describes the defined ledger, legal entity, and primary balancing segment values.

Ledger	Legal Entity	Primary Balancing Segment Value
InFusion USA	InFusion Farms	3100, 3200, 3300, 3400, 3500
InFusion USA	InFusion Textiles	4000
InFusion USA	InFusion Products (East)	5000
InFusion USA	InFusion Products (West)	6000
InFusion USA		1000, 9000

- Additional Intercompany Balancing and Clearing Options as shown in this table.

Rule Number	Ledger	Source	Category	Transaction Type	AR Account	AP Account
1	InFusion USA	Other	Other	None	1000 - 000 -200 - 0000 - 13010 - 0000	1000 - 000 - 100- 0000 - 21010 - 0000

- Journal Balancing
  - Journal Before Balancing as shown in this table.

Line	Line Type	Legal Entity	CO	CC	DIV	PROD	ACCT	IC	Debit	Credit
1	Expense	InFusion Farms	3100	100	110	1200	52330	0000	150	
2	Liability	InFusion Farms	3100	500	330	1300	40118	0000		150

- Journal Balancing
  - Journal after Balancing as shown in this table.

Line	Legal Entity	CO	CC	DIV	PROD	ACCT	IC	Debit	Credit	Uses Rule
1	InFusion Farms	3100	100	110	1200	52330	0000	150		
2	InFusion Farms	3100	500	330	1300	40118	0000		150	
3	InFusion Farms	3100	100	110	0000	21010	0000		150	1
4	InFusion Farms	3100	500	330	0000	13010	0000	150		1

Project Material Return Authorization: Overview

Streamline and track the return of project materials shipped against a sales order. Order managers and order entry specialists enter project information on the return material authorization, so that project accountants and project managers can track related supply chain costs for the project.

You must opt-in to the Accept Project-Specific Customer Returns feature in the Manufacturing and Supply Chain Materials Management offering to use this feature.

Create Return Order in Order Management

Create a referenced or unreferenced sales order customer return under the Order Management work area.

- If referenced, the project and task details are copied from the referenced sales order when available.
- In case of an unreferenced return material authorization, you can still enter project and task details by selecting the **Edit Project Details** icon. You can also remove referenced project and task details using the **Remove Project Details** button when the **Allow User to Remove Project Details on Referenced Returns** parameter in the Manage Order Management Parameters task in Functional Setup Manager is enabled.

Import Sales Order Customer Returns into Oracle Projects

Once the item is received and the transaction is accounted by Cost Management, you can import related sales order customer returns into Oracle Projects using the Import Costs process in Project Costing.

View transaction details using the Manage Project Costs page that's available in the Costs and Project Management work areas. Use the **View** menu to add the sales order number column, which can help you identify the transaction source.

View Sales Order Customer Return References

Use the Manage Unprocessed Costs and Manage Cost Distributions pages to view sales order customer return references using the sales order number.

Open the expenditure item to review its transaction's details, including the source document details. You can also create an analysis in OTBI using the sales order customer return details available in Project Costing - Actual Costs Real Time subject area.

Considerations for Viewing Sales Order Customer Return References

Here are a few considerations that you must keep in mind while viewing sales order customer return references:

- PPM receives costs only in the case of a referenced intercompany project-based sales order customer return, complete with project and task details. For referenced intercompany project-based returns, Cost Management sends the cost as a positive charge to the project referencing expenditure organization, and as a negative charge referencing the expenditure organization on the return order, against the Trade Sales Return event.
- If any overheads are absorbed for these events, you must send them as an additional positive charge to the project from the organization where they get earned.
- PPM doesn't receive any costs for the scenarios listed below, and the respective cost distributions will be marked as not applicable for interfacing to Projects in the Review Cost Accounting Distributions page in Cost Management.
    - Unreferenced project-based sales order customer returns with or without the project and task details.
    - Referenced project-based sales order customer returns within the same business unit.
    - Referenced intercompany project-based sales order customer returns without project and task details.

View Import Pending Customer Return Transactions

The Accounting Period Close Exceptions Report process also lists out sales order customer return transactions that are pending import into PPM. You can either view the return order details in the Accounting Period Close Exceptions output report or through an analysis in OTBI using the Projects - Period Close Exceptions subject area.

Credit Customer Accounts

Credit your customer using applicable invoice credit actions in Project Billing. You can follow the billing process that's currently available in Project Billing.

Considerations for Project Material Return Authorization

Here are a few considerations that you must keep in mind while working with project material return authorization:

- Enable the **Allow User to Remove Project Details on Referenced Returns** parameter from the **Manage Order Management Parameters** task in Functional Setup Manager to allow users to remove project details on referenced returns and to optionally receive into a non-project inventory.
- Sales order lines that include project details are typically invoiced as part of Project Contract Billing, and not from Receivables. Create a new line type, such as Project Based, and assign it to the lines that include project details. Perform one of these two set ups:
    - Create an orchestration process that doesn't include an invoice task, and assign this process to the Project Based line type.
    - Create an orchestration process that does include an invoice task and that uses line selection criteria to skip the lines that include the Project Based line type.

Related Topics

- How Project Costs are Imported
- Project Costs Capture
- Return Sales Orders
- Return Items Without Original Sales Order

FAQs for Intercompany Project Billing

Why can't I see the internal billing details on a contract?

If you do not see the internal billing features on a contract, check the attributes on the contract type. The internal billing options of a contract are only visible if the contract type is designated as either intercompany or interproject.

31 Project Billing Configuration: Transfer Pricing

Transfer Price Rules

Transfer Price Rules

Create rules to determine how transfer prices are calculated for cross-charge transactions that require borrowed and lent processing or intercompany billing processing. Transfer price calculation can be based on the raw cost, burdened cost, or revenue of the cross-charged transaction.

To set up transfer price rules, you need to understand the following components:

- Transfer price rule attributes
- Transfer price determination logic

Transfer Price Rule Attributes

To create a transfer price rule, you specify the rule name and description, and define these attributes:

- **Type**: Valid transfer price rule types are **Labor** and **Nonlabor.**
- **Transfer Price Basis**: The basis for transfer price calculation. Transfer price basis options are:
    - Raw cost
    - Burdened cost
    - External recognized revenue
- **Calculation Method**: Transfer price calculation methods are:
    - Basis only: Use the transfer price with no further adjustments.
    - Apply burden schedule: Specify the name of an existing burden schedule to apply to the basis.
    - Apply rate schedule: Specify the name of an existing rate schedule to apply to the basis.
- **Burden Schedule**: The burden schedule to apply to the transfer price basis if the transfer price calculation method is to apply a burden schedule. You can select any burden schedule from any set.
- **Rate Schedule**: The rate schedule to apply to the transfer price basis if the transfer price calculation method is to apply a rate schedule. You can select any rate schedule from any set.
- **Markup or Discount Percentage**: A rate to apply to the transfer price amount that the rule calculates.

Transfer Price Determination Logic

The following table lists the valid combinations of transfer price basis and calculation methods, and the calculation logic used to determine transfer price amounts based on transfer price rules.

Transfer Price Basis	Calculation Method	Calculation Logic	Transfer Price Transaction Currency
Raw cost	Basis only	Raw cost with no multipliers applied	Same as transaction currency of expenditure item
Raw cost	Apply burden schedule	Burden multipliers are applied to raw cost	Same as transaction currency of expenditure item
Raw cost	Apply rate schedule	If the rate schedule has a markup, the markup is applied to raw cost If the rate schedule has a multiplier, the multiplier is applied to the amount	Currency of the rate schedule
Burdened cost	Basis only	Burdened cost with no multipliers applied	Same as transaction currency of expenditure item
Burdened cost	Apply burden schedule	Burden multipliers are applied to burdened cost	Same as transaction currency of expenditure item
Burdened cost	Apply rate schedule	Rate multipliers are applied to burdened cost	Currency of the rate schedule
External recognized revenue	Basis only	External recognized revenue with no multipliers applied	Regular recognized revenue in ledger currency, which is an attribute of the expenditure item

Related Topics

- Cross-Charge Options for Project Business Units
- Transfer Price Schedules

Examples of Transfer Price Rates

Use these examples to understand how to configure cross-charge options on bill plans and revenue plans to achieve various interproject and intercompany billing scenarios.

One Cross-charge Rule or Rate, One Provider Business Unit, Any Receiver Business Unit, All Projects

The following table explains how to configure your contract billing information to share one cross-charge rule or rate between one provider business unit and any receiver business unit, and all projects associated with the contract.

Bill Plan	Bill Rate Schedule
Bill Plan 1	Assign the bill rate schedule you want to use for the contract (provider) business unit to this bill plan.

One Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, All Projects

The following table explains how to configure your contract billing information to share one cross-charge rule or rate between one provider and receiver business unit, and all projects associated with the contract.

Bill Plan	Bill Rate Schedule
Bill Plan 1	Assign the bill rate schedule you want to use for the provider business unit to this bill plan.
Bill Plan 2 All contract lines associated with the receiver projects can use this bill plan.	Assign the bill rate schedule you want to use for the receiver business unit to this bill plan.

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, One Project

The following table explains how to configure your contract billing information to override a cross-charge rule or rate between a provider and receiver business unit for one project.

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a rate override for the contract line associated with the receiver project.	Project level

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, Task

If a resource is assigned to multiple roles and has more than one rate on a project, you may need to create an override at the project task level. The following table explains how to configure your contract billing and contract line details to override a cross-charge rule or rate between a provider and receiver business unit, for the task on a specific project.

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a job rate override for the contract line associated with the receiver project.	Task level

Override a Cross-charge Rule or Rate, One Provider Business Unit, One Receiver Business Unit, Resource

If you are invoicing for a contractor, you may want to create an override at the resource level. The following table explains how to configure your contract billing and contract line details to override a cross-charge rule or rate between a provider and receiver business unit, for a specific resource on a project.

Bill Plan	Schedules and Overrides	Associated Projects
Bill Plan 1	Create a person rate override for the contract line associated with the receiver project.	Task level

FAQs for Transfer Price Rules

What's a transfer price rule?

A rule to calculate the transfer price of cross-charge transactions. The key aspects when you define the rule are as follows:

- Type of transaction to which the rule applies: labor or nonlabor
- Basis for the cross-charge transaction: raw cost, burdened cost, or revenue amount
- Method used to calculate the transfer price: rate schedule, burden schedule, or no further adjustment
- Markup or discount percentage to apply to the transfer amount calculated by the rule
- Applicable date range for the rule

Can I select any burden schedule or bill rate schedule for a transfer price rule?

Yes. You can assign any rate schedule to a transfer price rule, regardless of the project rates set assigned to the bill rate schedule.

Transfer Price Schedules

Transfer Price Schedules

Transfer price schedules contain the rules to determine the transfer price amount for transactions charged from a provider organization to a receiver organization. You create different transfer price schedules to use for various combinations of legal entities, business units, and organizations.

You can create 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 the rules for capital projects and another for contract projects.

Before you set up transfer price schedules, you must set up organizations and transfer price rules.

Transfer Price Schedule Lines

Transfer price schedule lines contain details about the provider and receiver organization, labor transfer price rule and markup or discount percentage, nonlabor transfer price rule and markup or discount percentage, and amount type.

A transfer price schedule can contain provider and receiver organizations from any organization classification that's relevant to projects. The available organization classifications are determined at implementation when setting up organization hierarchies and classifications. If you don't select a receiver organization, the transfer price schedule applies to any receiver organization that receives transactions from the specified provider organization.

A labor rule is valid transfer price rule with a type of labor. A nonlabor rule is a valid transfer price rule with a type of nonlabor. A transfer price schedule must contain either a labor or nonlabor rule, or both. You can assign a markup or discount percentage to each transfer price rule to apply to the transfer price amount that the rule calculates.

You assign cost transfer or revenue transfer as the amount type for the transfer price calculation.

Transfer Price Schedule Hierarchy

A transfer price schedule should be determined based on whether the cross-charge transaction is processed using the borrowed and lent processing method or the intercompany billing method. If you use the borrowed and lent processing method, you should assign a transfer price schedule to the receiver task or the project. If you use the intercompany billing method, the bill and the revenue plan can have a transfer price schedule.

> **Note:** The interproject billing method doesn't use transfer price calculation logic. Only the billing methods based on the bill rate schedule or burden rate schedule are allowed for interproject billing.

You can define a transfer price schedule at any organization level and legal entity level. Project Financial Management applications use the following logic to identify the appropriate schedule line:

1. If a transfer price schedule line exists for the provider organization (the project expenditure organization) and the receiver organization (the project and task owning organization), then the application uses the corresponding rule to calculate the transfer price.

   > **Note:** You define the project expenditure organization hierarchy in the implementation options for the provider business unit. You define the project and task owning organization hierarchy in the implementation options for the receiver business unit.

2. If it doesn't find a schedule line in the previous step and an organization hierarchy is used, the application checks for a line with the provider organization and a receiver parent organization.

   If the receiver organization has multiple intermediate parents and you defined schedule lines for more than one of the parents, the schedule line defined for the lowest level parent takes precedence over schedule lines defined for parents higher in the organization hierarchy.

3. If it doesn't find a schedule line in the previous step and an organization hierarchy is used, the application checks for a line with the provider parent organization and receiver parent organization.

   If the provider organization has multiple intermediate parents and you defined schedule lines for more than one of the parents, the schedule line defined for the lowest level parent takes precedence over schedule lines defined for parents higher in the organization hierarchy.

   > **Note:** If there is a schedule line with only a provider organization, and another schedule line with both provider and receiver organizations, the application gives precedence to the schedule line with both provider and receiver organizations.

4. If it doesn't find a schedule line in the previous step, the application checks for the default line for the transfer price schedule.
5. If it doesn't find a schedule line in the previous step, the process results in an error.

Related Topics

- Cross-Charge Options for Project Business Units
- Transfer Price Rules
- Set Up Organizations

FAQs for Transfer Price Schedules

What happens if I change a transfer price rule or transfer price schedule?

The revised transfer price rule and schedule is applicable to unprocessed transactions only. To change a previously processed transaction, you must adjust the expenditure item.

32 Project Billing Configuration: Customer Billing Configuration for Project Billing

Transaction Sources

Guidelines for Transaction Numbering

Use the various options on the transaction source assigned to a transaction to manage your transaction numbering requirements.

Refer to these guidelines when defining transaction numbering for transactions assigned to specific transaction sources:

- Document Sequences
- Automatic Transaction Numbering
- Copy Document Numbers to Transaction Numbers
- Allow Duplicate Transaction Numbers
- Credit Memo Transaction Source

Document Sequences

If necessary, define document sequences to assign unique numbers to each transaction, in addition to the transaction number assigned automatically.

Ensure that the necessary setups for document sequences are completed, according to your requirements.

Automatic Transaction Numbering

To automatically number new transactions you create using a transaction source, enable the **Automatic transaction numbering** option and enter a number in the **Last Number** field.

For example, to start numbering transactions with 1000, enter a last number of 999. Receivables automatically updates the **Last Number** fields on transaction sources, so you can review the transaction source later to see the last transaction number that was generated.

Note: The last transaction number on the transaction source is an approximation only, due to caching.

You can use automatic transaction numbering with both Imported and Manual transaction sources.

Copy Document Numbers to Transaction Numbers

If you're using document sequences and you want to use the same number as both the document number and the transaction number for transactions assigned to a transaction source, enable the **Copy document number to transaction number** option.

If you're using Gapless document sequences, you should enable this option if you require gapless transaction numbering. This ensures that transaction numbers are generated sequentially with no missing numbers.

Allow Duplicate Transaction Numbers

Enable the **Allow duplicate transaction numbers** option to allow duplicate transaction numbers within a transaction source.

This option is for manual transaction numbering only.

Credit Memo Transaction Source

Assign a credit memo transaction source to an invoice transaction source, if you want to number credit memos differently from the invoices that they credit.

Related Topics

- Document Sequences

AutoInvoice and Sales Credit Information

During AutoInvoice processing, whether you must provide sales credit information on imported transaction lines depends on the settings of the **Allow sales credits** option on the transaction source and the **Require salesperson** Receivables system option.

These are the requirements for passing sales credit information on imported transaction lines:

- If the **Require salesperson** system option and the **Allow sales credits** option on the transaction source are both enabled, you must provide sales credit information.
- If the **Require salesperson** system option isn't enabled and the **Allow sales credits** option on the transaction source is enabled, you can provide sales credit information, but it isn't required.
- If the **Require salesperson** system option is enabled and the **Allow sales credits** option on the transaction source isn't enabled, you must provide sales credit information.
- If neither the **Require salesperson** system option nor the **Allow sales credits** option on the transaction source are enabled, you can't provide sales credit information. AutoInvoice ignores any values that you pass.

How AutoInvoice Validates Imported Transactions

Use the AutoInvoice Options and Import Information sections of an Imported transaction source to define how AutoInvoice validates imported transaction lines.

You don't have to pass values for all of the fields that are referenced in the transaction source. If you don't want AutoInvoice to pass certain data, then where available you can set the related option to **None**.

> **Note:** Even if you set a transaction source data option to **None** in order to avoid importing this information into the interface tables, AutoInvoice can still validate and reject transaction lines with invalid data.

Settings That Affect the Validation of Imported Transactions

These settings affect the validation of imported transactions:

- **Invalid Line** field: Indicate how AutoInvoice handles imported transactions with invalid lines by selecting either Reject Invoice or Create Invoice.
    - If you select Reject Invoice, AutoInvoice doesn't import this transaction or any of its lines into the interface tables.
    - If you select Create Invoice, AutoInvoice creates a transaction with valid lines only. For example, you import an invoice with three invoice lines and one of the lines is invalid. AutoInvoice creates the invoice with the two valid lines only and rejects the invalid line. You can use the Edit Transaction page to add the rejected line.
- **Accounting Date in a Closed Period** field: Indicate how AutoInvoice handles imported transactions that have lines in the interface lines table that are in a closed accounting period.
    - Select Adjust to have AutoInvoice automatically adjust the accounting dates to the first accounting date of the next open or future enterable period.
    - Select Reject to reject these transaction lines.
- In the Import Information sections, where applicable select Number, Value, Segment, or ID for each option to indicate how AutoInvoice validates information:
    - Select Number to import a record into the interface tables using its assigned number.
    - Select Value to import a record into the interface tables using its actual name.

      Note: Use Value if you intend to use the transaction source to import data from a non-Oracle system.
    - Select Segment to use the flexfield segment.
    - Select ID to use the internal identifier of the record.
- Select Amount or Percent to indicate how AutoInvoice validates Sales Credits and Revenue Account Allocations on transaction lines.

How Imported Transactions Are Validated

AutoInvoice validates imported transactions based on the settings of the assigned Imported transaction source. Transactions that fail validation appear in the Import AutoInvoice Validation report.

AutoInvoice ensures that certain column values agree with each other. These values can be within an interface table or multiple interface tables. For example, if the transaction source indicates that a revenue scheduling rule can't be used, AutoInvoice ignores any values passed for invoicing rule, revenue scheduling rule, and revenue scheduling rule duration.

AutoInvoice performs these validations on transaction lines with revenue scheduling rules:

- Requires that these transactions also include an invoicing rule, if you import transactions that use revenue scheduling rules.
- Rejects lines, if the revenue scheduling rule has overlapping periods.
- Rejects lines, if the designated accounting periods don't exist for the duration of the revenue scheduling rule.

Related Topics

- Why did AutoInvoice reject transactions?

FAQs for Transaction Sources

What do I create before creating transaction sources?

You may want to create certain records before creating your transaction sources.

You can optionally create these objects for Manual or Imported transaction sources:

- Transaction types: Define the transaction types that you want to appear by default on transactions assigned to your transaction sources. You select the transaction type you want for a transaction source in the **Standard Transaction Type** field.
- Credit memo transaction source: Define one or more transaction sources for credit memos before you define a transaction source for invoices. You then select a credit memo transaction source to accompany the invoice transaction source in the **Credit Transaction Source** field.

  You can use credit memo transaction sources in these ways:

  - Number the credit memos created against invoices differently from the invoices they're crediting.
  - Create a manual credit memo transaction source for credit memo request approvals, when the approved credit memo amount is greater than the open balance on the invoice. For these transaction sources, set the **Receipt Handling for Credits** option to On Account.

You can optionally create these objects for Imported transaction sources only:

- Invoice Transaction Flexfield: Define the reference information that you want to capture in the Invoice Transaction Flexfield and display on imported transactions, such as a purchase order number.
- AutoInvoice grouping rule: Define the grouping rule to appear by default on imported transaction lines.
- AutoInvoice clearing account: Define an AutoInvoice clearing account, if you intend to enable the **Create clearing** option. AutoInvoice puts any difference between the revenue amount and the selling price times the quantity for a transaction into this account.

How can I manage credit memos with transaction sources?

Special conditions may apply to the creation of transaction sources for credit memos.

Review these considerations for transaction sources assigned to credit memos:

- Define Manual transaction sources for credit memos created by the credit memo request approval process.
- Define credit memo transaction sources to assign to invoice transaction sources using the **Credit Transaction Source** field. Use credit memo transaction sources on invoice transaction sources under these conditions:

  - Number the credit memos created against invoices differently from the invoices they're crediting.
  - Create a manual credit memo transaction source for credit memo request approvals, when the approved credit memo amount is greater than the open balance on the invoice. For these transaction sources, set the **Receipt Handling for Credits** option to On Account.

- Enable the **Copy transaction information flexfield to credit memo** option on Manual transaction sources used for credit memos, to copy the Invoice Transaction Flexfield reference information to the credit memo crediting the invoice.
- Select the transaction type to assign to the invoice using the **Standard Transaction Type** field, if the credit memo transaction source requires invoice transaction types that use natural application only.

What happens if I don't enter an AutoInvoice grouping rule?

Assign the AutoInvoice grouping rule to Imported transaction sources that AutoInvoice uses to group imported transaction lines.

If you don't assign a grouping rule to an Imported transaction source, AutoInvoice uses the following hierarchy to determine which rule to use:

1. Grouping rule assigned to the transaction source of the transaction line.
2. Grouping rule assigned to the bill-to customer site profile of the transaction line.
3. Grouping rule assigned to the bill-to customer profile of the transaction line.
4. Grouping rule assigned to Receivables system options.

What happens if I don't create a clearing account?

If you don't use an AutoInvoice clearing account, but you enable the **Create clearing** option on the transaction source, the revenue amount must equal (Selling Price * Quantity) for all transactions AutoInvoice processes. AutoInvoice rejects transaction lines that don't meet this requirement.

33 Project Performance Reporting Configuration

Overview of Oracle Project Performance Reporting Setup

In the Define Project Performance Reporting Configuration activity, you configure reporting components for monitoring project performance.

The following table lists the setup tasks for Oracle Project Performance Reporting:

Task List or Task Name	Description
Define Project Performance Reporting Configuration	Configure Project Performance Reporting to collect and review project data against defined performance areas.
Manage Project Unit Options: Performance Reporting Options	Specify settings and default values for project performance reporting and analytics within a project unit.
Define Key Performance Indicators	Manage project performance measures, key performance indicators, KPI categories, and status and trend indicators to track and view project performance.
Manage Status Indicators	Create indicators to convey the status and severity of performance for a measure and a performance category.
Manage Trend Indicators	Update the description and sort order of the status trend indicators.
Manage KPI Categories	Create additional categories to group key performance indicators and to track and view the overall performance of a project.
Manage Performance Measures	Enable predefined performance measures for summarization. Create custom measures to evaluate project performance using base measures or retrieve from third-party or legacy sources. Specify the related measures that are displayed with the performance measure in the KPI analysis region.
Manage Key Performance Indicators	Specify thresholds of possible values for a measure and associate them to status indicators.
Define Region Personalization	Configure region layouts and graph types on the project performance reporting dashboard.
Manage Region Layouts	Configure rows and measures within the region layouts.
Manage Cross Project Comparison Graph Types	Create and update graph types to control the display name, sort order, and contents of the cross-project comparison graph region.

Task List or Task Name	Description
Define Summarization Options	Configure options for the summarization process.
Specify Number of Parallel Summarization Extraction Programs	Specify the maximum number of helper programs that can exist at one time. Data summarization programs can launch helper programs to manage the load on system resources.
Specify Global Start Date for Summarization	Specify the date that periodic analysis of summarized data starts. You can't analyze project performance data by period before this date.
Define Project Performance Reporting Configuration	Configure Project Performance Reporting to collect and review project data against defined performance areas.
Manage Project Performance Reporting Messages	Review and manage messages for Project Performance Reporting.

This chapter provides detailed setup steps for the task Manage Key Performance Indicators.

Considerations for Selecting Planning Amount Allocation

When you set up summarization options, you're required to specify the planning amount allocation basis. You can select a planning amount allocation basis only if you have selected the budgets and forecast data source for summarization. The following are the methods of allocating planning amounts:

- Period start date
- Period end date
- Daily proration

Note: You can't change the planning amount allocation basis if summarized data exists.

Assume that a project includes a task for team members to undergo some product and soft skills training. A budget of $5900 is allocated to this task between 1 January 2011 and 28 February 2011. While summarizing using a monthly accounting calendar, the application can allocate the planned amount in three ways.

Period Start Date Basis Method

Allocate the entire budget of $5900 to the first period of January 2011 regardless of when the training takes place. This allocation method could impact period to date cost variance measures for January and February if the actual training costs occur in February. The period start date basis method is the default option.

Period End Date Basis Method

Allocate the entire budget of $5900 to the last period of February 2011 regardless of when the training takes place. This allocation method could impact period to date cost variance measures for January and February if the actual training costs occur in January.

Daily Proration Basis Method

Distribute the budget of $5900 equally over the entire period so that $3100 is spent in January 2011 and $2800 is spent in February 2011. The following shows how the budget is distributed:

- Allocate the total amount of $5900 and dividing it by the total number of days to arrive at the daily amount.

  Total Number of Days = 31 + 28 = 59

  Daily Amount = $5900 / 59 = $100
- Multiply daily amount by the number of days the task is active.

  Amount for January 2011 = $100 * 31 = $3100

  Amount for February 2011 = $100 * 28 = $2800

Summarizing project performance data using daily proration requires more system resources than summarizing project performance data using the period start or end date basis. To distribute plan amounts evenly across plan duration, the application creates a summarized record for each day for the affected projects and tasks in the project unit.

Using the daily proration basis method reduces the chances of impacting period to date cost variance measures for January and February.

Related Topics

KPI Components

A key performance indicator (KPI) lets you define thresholds of possible values for a performance measure for any project in a project unit. During KPI definition, you associate a performance status indicator with each threshold level.

When you generate KPI values, the value is compared with the thresholds defined for the KPI. If the value falls within any of the defined threshold levels, then the status indicator of that threshold is associated with the performance measure.

The key components of a KPI are:

- Performance Measure
- Performance Status Indicator
- Threshold Level
- Performance Trend Indicator
- Tolerance Percentage

Performance Measure

Performance measures are predefined criteria for performance or schedule that are used to determine if a project is on track. You can create your own performance measures based on existing custom performance measures to effectively determine the overall health of your projects. Use any of the available performance measure to create a KPI.

Performance measures are defined for budgets and forecasts, billing and revenue, costs, effort, margin, capitalization, and so on. Following are examples of predefined performance measures:

- EAC Budget Cost (the estimate at completion burdened cost from the current baseline approved budget)
- ITD Forecast Revenue Variance (the inception-to-date current baseline budget revenue - inception-to-date current approved forecast revenue)
- Prior Period Margin Percentage Variance (the prior period current baseline budget margin percentage - prior period actual margin percentage)

You can rename these performance measures to make the measure names more relevant for your business needs. For example, rename EAC Budget Cost to Budget at Completion.

A performance measure is associated with one of the following time dimensions:

- Estimate-at-completion (EAC)
- Inception-to-date (ITD)
- Prior Period
- Period-to-date (PTD)
- Quarter-to-date (QTD)
- Year-to-date (YTD)

A performance measure set, such as Budget Cost, can have as many as six performance measures; one for each time dimension.

A performance measure can be expressed as a currency amount, as a percentage, or in time units such as hours when effort is measured. If a KPI is used on projects that use different currencies, you can enter different thresholds levels for each currency you need.

Performance Status Indicator

Performance status indicators indicate the status of a project, such as critical, at risk, and on track. Each icon indicates the status and severity of performance.

During KPI definition, you first associate status indicators with performance statuses:

- Critical
- Severe
- At risk
- On track
- Ahead

You then associate these statuses with threshold levels. When KPI values are generated for a project, each value is compared to the defined thresholds and the corresponding status indicator for the KPI appears in the project performance reports.

A status can identify negative performance so that you can take the appropriate actions to prevent or quickly resolve problems. Conversely, a status can identify positive performance to help you track expected or excellent performance.

Threshold Level

During KPI definition, you define threshold levels to cover all possible values for a KPI. If a KPI value exceeds the threshold levels you defined, the closest threshold is used to determine the KPI status. For example, if a KPI value falls lower than the lowest threshold level, the status of the lowest threshold level is assigned to the KPI.

A status indicator can be associated with more than one threshold level. For example, both underutilization and overutilization of resources can indicate a critical performance status.

Performance Trend Indicator

Performance trend indicators show the improving or worsening KPI value trends on the project. Each icon indicates whether an increasing performance trend has a positive or negative impact. For example, an increase in nonbillable costs is considered unfavorable to organizations that are able to bill costs to their clients. In this example, the performance trend indicator shows a negative impact.

Tolerance Percentage

A tolerance percentage is used to compare the previous KPI value with the current value to show if the performance trend is increasing, decreasing, or staying the same. For example, if the tolerance percentage is 10 percent for a KPI and the difference between the previous KPI value and the current value is greater than 10 percent, then the trend is increasing. If the difference is greater than -10 percent, then the trend is decreasing. If the difference is between -10 percent and 10 percent, then the trend shows no change. A single tolerance percentage value, such as 10 percent in this example, represents both negative and positive tolerances.

Related Topics

- How Performance Status For Tasks And Resources Is Calculated

Create Performance Measures Based on Existing Measures

Determine the overall health of projects with predefined performance measures related to budgets and forecasts or create your own based on existing performance measures. The performance measures are used in KPIs, which helps project managers gain insight into project health.

1. In the Setup and Maintenance work area, go to the **Manage Performance Measures** task.
2. On the Manage Performance Measures page, select **Custom** in the **Measure Category** drop-down list, and click **Search** to get the list of custom performance measure sets.
3. Click the custom performance measure set that you want to define measures for.
4. On the Edit Performance Measure page, select the corresponding custom member from either the **Accounts Member** or **Scenario Member** drop-down list.

> **Note:** Select the format of your custom performance measure judiciously such that it aligns with the formats of the predefined measures used in the custom performance measure calculation.

5. Select the **Use Time Dimension Member in Formula** check box if you want to use a time member in the formula.

   > **Note:** If you select this check box, then only one performance measure that's unrelated to a time member is displayed in the Edit Performance Measure page.

6. Enter the formula in the **Formula** field or click the **Define Formula** icon to define the formula using the custom measure calculator.

   > **Note:** If you're using the calculator, then after you select the Accounts Member, Scenario Member, and the Time Member (only if you selected the **Use Time Dimension Member in Formula** check box), click the **Go** icon to include them in the formula. Also, after you enter a number, click the **Go** icon next to it for the multiplier to be included in the formula.

7. Select the **Enabled for Use** check box to enable the custom performance measure for use.
8. Optionally, add related measures that are relevant to the custom performance measure so you can view them in the Analyze KPI page.
9. Click **Save and Close**.
10. Go to the **Manage Key Performance Indicators** task and attach the custom performance measure to a KPI.
11. Attach the KPI to the project, as follows:
    a. Go to **Projects** > **Project Financial Management**.
    b. In the My Projects page, right-click the project and select **Manage Financial Project Settings**.
    c. In the Manage Financial Project Settings page, click **Reporting**.
    d. Click the **Add** icon under the Key Performance Indicators section.
    e. In the Add KPI to Project dialog box, select the KPI to attach to the project from the **Name** drop-down list. Also, select the check boxes under the Track KPI Settings section as appropriate, and click **Save and Close**.
    f. Click **Done**.
12. Run the **Update Project Performance Data** process.

    Once this process completes successfully, you can view the data for the custom performance measures for the project on the Review Project Performance page. You can also view the KPI in the Health infolet of the Project Management dashboard.

Related Topics

Examples of Performance Measure Formulas

Suppose that you want to define a formula for original budget labor effort in days with 8 labor hours per business day.

Select **Original budget [PT1_OP]** as the **Scenario Member** and **Labor effort [LABOR_HRS]** as the **Account Member** and define the formula as follows:

```
([PT1_OP],[LABOR_HRS]) / 8
```

Suppose that you want to define a formula for original budget labor effort at completion in days versus current approved forecast labor effort in days with 8 labor hours per business day. Select the **Use Time Dimension Member in Formula** check box and define the formula as follows:

```
( ([PT1_OP],[LABOR_HRS],[AC]) / 8 ) - ( ([PT2_C],[LABOR_HRS],[AC]) / 8 )
```

- To define the formula for original budget labor effort at completion in days, select **Original budget [PT1_OP]** as the **Scenario Member**, **Labor effort [LABOR_HRS]** as the **Account Member**, and **Estimate at completion [AC]** as the **Time Member**.
- To define the formula for current approved forecast labor effort in days, select **Current forecast [PT2_C]** as the **Scenario Member**, **Labor effort [LABOR_HRS]** as the **Account Member**, and **Estimate at completion [AC]** as the **Time Member**.

Suppose that you want to define a formula for ITD Baseline Margin Percentage versus EAC Forecast Margin Percentage Variance. Select the **Use Time Dimension Member in Formula** check box and define the formula as follows:

```
(((([PT1_C],[REVENUE],[ITD]) - ([PT1_C],[BRDN_COST],[ITD])) / ([PT1_C],[REVENUE],[ITD])) * 100) -
 ((((([PT2_C],[REVENUE],[AC]) - ([PT2_C],[BRDN_COST],[AC])) / ([PT2_C],[REVENUE],[AC]))) * 100)
```

Enable Access to the Project Performance Dashboard

Project administrators and project application administrators can provide project managers access to the Project Performance Dashboard.

1. In the Setup and Maintenance work area, go to the **Manage Administrator Profile Values** task.
2. Search for the ORA_PJS_SHOW_ALL_DASHBOARDS profile option code and set its value to **Yes**.

   Project managers should now be able to access the Project Performance Dashboard. However, if you're still unable to access the Project Performance Dashboard, then continue with the following steps.
3. Create and activate a sandbox.
4. In the Sandbox menu, click the down arrow next to **Tools** and click **Structure**.
5. Scroll to Projects and expand it.
6. Click **Project Performance Dashboard**.
7. In the Edit Page Entry: Project Performance Dashboard page, set **Show on Navigator** to **Yes**, and click **Save and Close**.
8. Click the down arrow next to the sandbox link at the top of the page and click **Publish**.
9. Click **Publish** in the Sandbox Detail page.
10. Click **Yes** to close the warning message.
11. Log in to verify that the Project Performance Dashboard link is available under Projects.

Project administrators can view projects and project data only for those projects that they administer, that belong to the organizations or business units that they administer, or to which they have access to.

To enable access to the Project Performance Dashboard, assign a custom role to the project administrator.

1. Click **Navigator**> **Tools** > **Security Console**.
2. In the Roles page, search for the Project Administrator role.

   The Project Administrator role is displayed in the Search Results section.
3. From the **Actions** menu, select **Copy Role**.
4. In the Copy Options page, select **Copy top role and inherited roles** and click **Copy Role**.
5. In the Copy Role: Basic Information page, enter the required values. For example, for a Custom Project Administrator role, enter:

Field	Value
Role Name	Custom Project Administrator
Role Code	PJF_PROJECT_ADMINISTRATOR_CUSTOM
Role Category	Projects-Job Roles
Description	Desired role description. For example, Assists the project manager with the administrative functions of a project, particularly the functions related to collecting and entering information into the project application.

6. Click **Next**.
7. In the Copy Role: Function Security Policies page, click **Add Function Security Policy**.
8. In the Add Function Security Policy dialog box, search for Manage Project Performance.
9. Select the function security policy in the Search Results section and click **Add Privilege to Role**.
10. Click **OK** to close the confirmation message.

    The custom role is created with the privileges. You can now assign this custom role to the project administrator who wants to access Project Performance Dashboard.

Import Project Key Performance Indicators

Import KPIs for project templates and projects that are enabled for financial management into Oracle Fusion Cloud Project Management by using the Import Project Key Performance Indicators file-based data import feature.

You can also use the Excel template to update KPI assignments to project templates and projects that are enabled for financial management. For example, if you no longer want to see the values of certain KPIs for a project, then you can disable those KPIs for that project.

The Excel template is part of the External Data Integration Services for Oracle Cloud feature. To download the Project Key Performance Indicators Interface Excel workbook template, see the File-Based Data Import (FBDI) for Project Management guide.

To attach or disable KPIs for project templates or projects:

1. Prepare your data in the Project Key Performance Indicators Interface macro-enabled Excel workbook template.
2. Click **Generate CSV File** in the template to create a comma-separated values file.
3. Navigate to the Scheduled Processes page.
4. Click **Schedule New Process**, select **Load Interface File for Import** from the **Name** drop-down list, select **Import Project Key Performance Indicators** from the **Import Process** drop-down list, upload the data file, and click **Submit**.

Output Report

After the **Import Project Key Performance Indicators** process is complete, the **Import Project Key Performance Indicators: Generate Report** process runs automatically and creates the Import Project Key Performance Indicators Report. This output report details:

- The number of KPIs and projects that were processed, attached successfully, and not attached. Also, lists the KPIs and projects that weren't attached.
- The errors due to which the records weren't processed. Correct these errors in the same output report and re-upload it.

Review the output report and repeat the following steps until all rows are imported successfully and the KPIs are attached to the project templates or projects:

1. Correct the errors in the Import Project Key Performance Indicators Report output report.
2. Generate CSV files.
3. Submit the **Load Interface File for Import** process.

FAQs for Project Performance Reporting

What's the difference between effort-based, amount-based, and percentage-based performance measures?

Performance measures that are based on effort hours are effort-based. Examples are, actual spent labor effort and actual spent equipment effort.

Performance measures that are based on currency values are amount-based. Examples are, actual revenue and actual raw cost.

Performance measures that are based on percentages are percentage-based. Examples are, actual margin percentage and actual nonbillable cost percentage.

Note: KPIs that are percentage-based can be tracked at the task, resource, and project levels.

What's the difference between key performance indicator and performance measure?

Key performance indicators (KPIs) measure how well an organization or individual performs an operational, tactical, or strategic activity that's critical for the current and future success of the organization.

Examples are: Period-to-Date (PTD) Actual Spent Labor Effort Percentage, PTD Actual Spent Equipment Effort Percentage, and PTD Actual Margin Percentage.

Performance measures are singular data elements defined by a specific account, scenario, and time dimension combination. For example, the performance measure, Quarter-to-Date (QTD) Forecast Labor Effort, references the account of labor hours, in the scenario of primary forecast, and the quarter-to-date time dimension.

A KPI is created based on a performance measure, and specifies how a performance measure value is interpreted using threshold levels. For example, the KPI PTD Actual Spent Equipment Effort is based on the measure actual spent equipment effort.

What's a KPI period determination date?

Date used to determine the accounting calendar and project accounting calendar periods for performance measure calculations during key performance indicator (KPI) value generation.

For example, assume that your project uses a monthly accounting calendar and a weekly project accounting calendar. You generate KPI values on December 8, 2010 with a KPI period determination date of November 30, 2010. The current period for KPI generation is determined based on the type of calendar used. In the accounting calendar, the date November 30, 2010 falls into the November 2010 period. In the project accounting calendar, November 30, 2010 falls in the first week of December 2010.

Note: The KPI period determination date must be a date in the past.

Can I track KPI values at the task and resource level?

Yes, you can track key performance indicators that have a percentage measure format at task and resource levels for a project.

34 Set Up Programs

Set Up Programs

Setting up Program Management involves the following tasks, each of which you can access from the Setup and Maintenance work area:.

- **Manage program options:** Set up program options, including the program calendar, calendar mapping method, and currency conversion settings.
- **Manage performance measures:** Set up performance measure names, disable measures that your organizations doesn't plan to use, and change the default set of measures that appear in the Analysis page.
- **Manage conversion rates:** Define conversion rates between the project currency and program currency
- **Update program performance data:** Sets up the default values required to create and manage programs if the initial set up isn't done in the Manage Program Options task.
- **Manage program lookup values:** Review and update the list of values that describe the program.

Note: If you make any updates to the performance measures after setting up the program options, you should run the **Update Program Performance Data** process to initialize your work area.

Managing Custom Access to Programs

See the Custom Roles section in the Securing ERP guide to learn how you can manage custom roles to ensure that only users with the required privileges can access specific program data.

Related Topics

- Program Overview

Manage Program Options

Use the **Manage Program Options** task in the Setup and Maintenance work area to select program options, which include the program calendar, calendar mapping method, and currency conversion settings.

Program Calendar Settings

Use the **Program Calendar** drop-down list to specify the calendar that you want to use for program analysis. Typically, this calendar is the same as your financial project accounting calendar.

Select the **Project Calendar Mapping Method** to indicate how the project's accounting calendar period maps to the program calendar, if the two are different.

Physical Completion Percentage and Earned Value

Specify whether you want to use cost or effort data to calculate program completion percentage.

- Select **Cost** if you want to track program completion percentage using the costs incurred and the budget that remains.
- Select **Effort** if you want to track program completion by considering the tasks completed and the tasks that remain.

Indicate how you want to calculate the earned value of your programs.

- Select **Financial project plan** to use duration days to derive the planned value.
- Select **Project budget** to use ITD budget as the planned value.

Program Analysis Currencies and Conversion Settings

Use the **Manage Program Options > Program Analysis Currencies** section to add up to 5 currencies for your programs and specify the default currency. When you save your changes, the Update Program Performance Data process converts monetary values from a project's currency to the program's currency using the specified **Conversion Type** and **Conversion Date** settings.

The program analysis user interface initially displays amounts in the default currency. When a program manager changes the currency, the selection becomes their personal preference.

Conversion Types and Conversion Dates

Use conversion types and dates to specify foreign currency conversion rules within projects and programs.

The **Conversion Type** field enables you to specify the methods or rules that you want to use to convert values across currencies. For example, you you can specify a **Fixed** conversion type, where the conversion rates don't change, regardless of market fluctuations, or you can create a **DALY** conversion type, where the conversion rate directly reflects the exchange rates in force on the conversion date. Use the **Manage Conversion Rate Types** setup task to set up conversion rates and rate types. See *Guidelines for Creating Conversion Rate Types* for more information.

Adjust the **Conversion Date** to determine whether currency conversions for programs occur in the start or end of a period. This setting directly impacts budgeting and financial reporting accuracy, particularly in dynamic market conditions.

Related Topics

- How Project Calendars Are Mapped to Program Calendars

Manage Performance Measures

A performance measure is a value that indicates how well your project and program are performing.

When measures are enabled for programs, the value associated with each performance measure for each project in a program is collected and summarized. The method of summarization may vary depending on the nature of the performance measure. For example, actuals such as ITD or QTD are calculated by adding related values together, while earned value measures are calculated using detailed formulas. Program managers can add enabled measures to their **Headlines** and **Analysis** views in the Program Management work area.

The application enables you to group related program measures into performance measure sets, which in turn, it groups under intuitively named measure categories. For example, the **ITD budget margin** seeded performance measure is a part of the **Budget margin** measure set, which contains a list of other performance measures that are related to budget margins, such as **PTD budget margin** and **QTD budget margin**. This measure set itself is a part of the **Margin budget** measure category, which lists out all margin-related measure sets, such as **Margin variance** and **Original budget margin**. Organizing performance measures into measure sets and categories makes it easier to organize and search for performance measures when needed.

Thus, when you search for a performance measure and are unsure of its name, select the measure category that's closest to it. For example, if you're searching for the **ITD forecast labor effort** measure, click the **Measure Category** field, select **Effort forecast**, and click **Search**. From the list of performance measure sets, select **Forecast labor effort**, and you can see **ITD forecast labor effort** in the Measures section.

If you know the name of the performance measure set to which a performance measure belongs, enter it in the **Name** field in the Manage Performance Measures page and select the performance measure you want to edit. The Edit Performance Measure page appears.

Edit Performance Measure Options

Use the Edit Performance Measure > Measures section to make the following updates to a performance measure:

> **Note:** All of the following performance measures, except for **Measure**, are applicable only to projects and, except for the measure name, no other settings impact how the performance measure appears in Program Management.

- **Measure**: Update the name of the measure.
- **Graph Type**: Update how the measure appears in visualizations. You can choose between **Graph**, **Bar**, and **None**.
- **Enabled for Use**: Select to enable the performance measure for projects and/or programs.
- **Default Display**: Select to display the performance measure in the Analysis page by default for projects and/or programs.

Edit Related Measures

Select a performance measure in the Measures section to display related performance measures.

Click the **Add Row** icon to add a related performance measure and use the **Measure** drop-down list to select the performance measure that you want to add. You can update a related performance measure by clicking the **Measure** drop-down list and selecting another performance measure as appropriate.

Click the **Delete** icon to delete a related performance measure that you added, from the list.

Preconfigured Performance Measures

15 preconfigured measures are available in the Programs work area for default display. You can select your own by modifying the Default Display value for the measures you choose. Earned value and effort measures default to the Progress view. All other measures default to the Financial view.

Here's the list of measures preconfigured for default display, according to the view you choose.

Progress View	Financial View
Cost performance index	ITD actual cost
Earned value	ITD actual margin
Earned value cost variance	ITD actual margin (%)
Earned value schedule variance	ITD budget cost
Planned value	ITD cost variance
Project complete (%)	ITD cost variance (%)
Schedule performance index	ITD margin percentage variance
	ITD margin variance

Manage Conversion Rates

Use the **Manage Conversion Rate Types** task in the Setup and Maintenance work area to define rates between the project currency and program currency.

When you run the Update Program Performance Data process, these rates convert the project amounts to the program currencies.

Related Topics

- Guidelines for Creating Conversion Rate Types

Update Program Performance Data

Program application administrators must run the Update Program Performance Data process before program managers can use the Program Management work area.

Access the Update Program Performance Data process from **Tools > Scheduled** Processes. It sets up the default values required to create and manage programs if the initial set up isn't done in the Manage Program Options task. The process picks a calendar and adds currencies from projects assigned to programs. It uses default values for the other options.

Program Description Lookup Values

Review and update the list of values that describe the program using the Manage Standard Lookups task in the Setup and Maintenance work area.

- Project Program Assessment (ORA_PROJECT_PROGRAM_ASSESSMENT): The general assessments for the likelihood that the program will meet the program objectives.
- Project Program Line of Business (ORA_PROJECT_PROGRAM_BUSINESS): The line of business names for the set of products and services that are managed by the program.
- Project Program Priority (ORA_PROJECT_PROGRAM_PRIORITY): The priorities for the program.
- Project Program Region (ORA_PROJECT_PROGRAM_REGION): The geographic or divisional regions covered by the program.
- Project Program Strategy (ORA_PROJECT_PROGRAM_STRATEGY): The strategic plans of actions and policies that are targeted by the project program.
- Project Program Status (ORA_PJS_PROGRAM_STATUS): The status values for the program.

Program Management enables you to track and report on program and project progress. One of the first things you must do, therefore, when you start working with programs, is set them up.

How can I enable program managers to capture additional program details during program creation?

Use descriptive flexfields to capture additional program-specific information beyond standard program details. However, you must first deploy these flexfields for your organization, after which these will be available in both the user interface and Project Program REST API.

To deploy a descriptive flexfield for your program:

1. Log in as a user who has access to the Setup and Maintenance work area.
2. Navigate to **Setup and Maintenance > Manage Descriptive Flexfields**.
3. Search for the program's flexfield using the following details:
    - **Name**: Program Descriptive Flexfield
    - **Flexfield Code**: PJS_PROG_DESC_FLEX
    - **Module**: Track & Manage
    - Click **Search**.
4. Click the **Edit** icon to make any necessary changes to the flexfield based on your business needs. Refer to the Overview of Descriptive Flexfields topic in the Configuring and Extending Applications guide for detailed instructions on how you can manage flexfields.
5. Click **Save & Close** to finalize your changes. Then, click **Deploy Flexfield** to make the updated flexfield visible in both the user interface and the REST service.

Considerations for Managing Program-Related Flexfields

You can also utilize the following REST services to manage program DFFs:

Path	Operation
/fscmRestApi/resources/11.13.18.05/projectPrograms/{ProjectProgramId}/child/ProgramDFF/	GET/ PATCH/ POST
/fscmRestApi/resources/11.13.18.05/projectProgramInsights/{id}/ child/ProgramDFF	GET

The REST services listed above can be used with the Oracle Visual Builder Add-in for Excel for managing programs. For details on working with the add-in, see documentation on *Oracle Visual Builder Add-in for Excel*.

Related Topics

- Overview of Descriptive Flexfields

Adding the Review Project Performance Privilege to the Program Manager Role

To add the Review Project Performance (PJS_REVIEW_PROJECT_PERFORMANCE_PRIV) privilege to the Program Manager role:

1. Navigate to Tools > Security Console.
2. Search for the **Program Manager** role (ORA_PJF_PROGRAM_MANAGER_JOB).
3. Click the **Actions** icon below the description of the role and select **Copy Role**.
4. Select **Copy top role and inherited roles** in the Copy Options modal that appears, and click **Copy Role**. The application now creates a new role, duplicating the existing Program Manager role, and the Basic Information page appears.
5. Provide a **Role Name** and **Role Code** for the new role, and update the **Description** as appropriate.
6. Click **Next**.
7. In the Functional Security Policies page that appears, click **Add Function Security Policy** to display the Add Function Security Policy modal.
8. Search and add the **Review Project Performance (PJS_REVIEW_PROJECT_PERFORMANCE_PRIV)** functional security policy to the new cole you created and click **Add Privilege to Role**. Click **Cancel** after adding the role to close the modal.
9. Click **Next**.
10. In the Data Security Policies page that appears, click **Create Data Security Policy**. The Create Data Security Policy modal appears.
11. Enter a **Policy Name** for the new data security policy.
12. Click the **Search** icon adjacent to the **Data Resource** field and search for and select **PJF_PROJECTS_ALL_VL**.
13. Click **OK**.
14. In the **Data Set** field, select **Select by instance set**.
15. In the **Condition Name** field, select **Access the projects for table PJF_PROJECTS_ALL_VL for the projects that are part of the program hierarchy**.
16. In the **Actions** field, select **Review Project Performance** and click **OK**.
17. Click **Next**. The Role Hierarchy page appears. Use this page to add or remove child roles associated with the new custom role that you created.

18. Click **Next**. The Users page appears.
19. Use the **Add Users** button to assign this new role to users as required.
20. Click **Next**.
21. Use the Summary page that appears to review the changes you made. You should have added one functional security policy and one data security policy. Once you are satisfied with your updates, click **Submit and Close**.

The custom role is now created. Assign this role to users to enable them to drill down directly from the Analysis page to the Review Project Performance page.

Enabling Project Performance Drill-Down Capability in the Analysis Page

Assign the Review Project Performance (PJS_REVIEW_PROJECT_PERFORMANCE_PRIV) privilege to allow program managers to drill-down and review project performance details right from the Analysis page.

To add the Review Project Performance (PJS_REVIEW_PROJECT_PERFORMANCE_PRIV) privilege to the Program Manager role:

1. Go to **Tools > Security Console**.
2. Search for the **Program Manager** role (ORA_PJF_PROGRAM_MANAGER_JOB).
3. Click the **Actions** icon below the description of the role and copy the role.
4. Select **Copy top role and inherited roles** in the Copy Options modal that appears, and click **Copy Role**.
5. The application now creates a new role, duplicating the existing Program Manager role, and the Basic Information page appears.
6. Provide a **Role Name** and **Role Code** for the new role, and update the **Description** as appropriate.
7. Click **Next**.
8. In the Functional Security Policies page that appears, click **Add Function Security Policy** to display the Add Function Security Policy modal.
9. Search and add the **Review Project Performance** (PJS_REVIEW_PROJECT_PERFORMANCE_PRIV) functional security policy and click **Add Privilege to Role**. Click **Cancel** after adding the role to close the modal.
10. Click **Next**.
11. In the Data Security Policies page that appears, click **Create Data Security Policy**. The Create Data Security Policy modal appears.
12. Enter a **Policy Name** for the new data security policy.
13. Click the **Search** icon adjacent to the **Data Resource** field.
14. In the Search Data Resources modal that appears, search for **PJF_PROJECTS_ALL_VL**, select the **Project for Table PJF_PROJECTS_ALL_VL** option, and click **OK**.
15. In the **Data Set** field, select **Select by instance set**.
16. In the **Condition Name** field, select **Access the projects for table PJF_PROJECTS_ALL_VL for the projects that are part of the program hierarchy**.
17. In the **Actions** field, select **Review Project Performance** and click **OK**.
18. Click **Next** in the Data Security Policies page.
19. Use the Role Hierarchy page to manage child roles associated with the new custom role that you created.
20. Click **Next**. The Users page appears.
21. Use the **Add Users** button to assign this new role to users as required.
22. Click **Next**.
23. Use the Summary page that appears to review the changes you made. You should have added one functional security policy and one data security policy. Once you are satisfied with your updates, click **Submit and Close**.

The custom role is now created. Assign this role to additional users if required, to enable them to drill down directly from the Analysis page to the Review Project Performance page.

35 Project Templates

Overview of Project Templates

A project template is a reusable model that serves as a blueprint for new projects. You must use project templates to create projects that share common features, attributes, and options.

Note: Only project application administrators and project integration specialists can create project templates.

Creating Project Templates

Use the Setup and Maintenance > Manage Project Templates page to create and edit project templates. This page enables you to create project templates in either of the following ways:

- Create a project template
- Duplicate a project template
- Create a project template from an existing project

Note: You can't delete project templates.

Project Template Options

Use project template options to specify basic details associated with your template.

Option Name	Decision	Notes
Organization	Which project and task owning organization must be associated with projects created from this project template?	Selecting a project and task owning organization are used for reporting, security, and accounting. It determines the default organization for the project, quick entry values, and allows transactions.
Business Unit	What reference data do I want projects created from this project template to access?	Selecting a business unit determines which rate schedules, project types, and invoice formats projects can use. It also determines the legal entity and which project and task owning organizations are available for projects.

Option Name	Decision	Notes
Project Unit	What reference data do I want projects created from this project template to access?	Selecting a project unit determines which class codes, financial and project plan types, project roles, and statuses projects can use. It also determines which transaction types are available for projects. For more information, see the Project Units topic in the Understanding Enterprise Structures guide.
Project Type	What is the project type that must be assigned to projects created from this project template?	Selecting a project type enables you to control basic project configuration options for burdening, billing, capitalization, and project categorization. **Notes:** • When you create a project from a project template, the project inherits the project type from the template, and you can't change it. • When you duplicate a project template to create a new one, you can't change the associated project type.
Initial Project Status	None	Defines the starting point or the baseline status of a project. It's the status that a new project automatically assumes when it's created from a template.
From Date	None	Defines the earliest possible start date for projects created using the template.
To Date	None	Defines the expected or planned end date of the project.
Name	NA	The name of the project template.
Number	NA	A unique number that identifies a project template.
Legal Entity	NA	Populates automatically based on the business unit you selected. Change this if required.
Description (Optional)	NA	Description of the project template.

Project Template Setup Options

When you create a project template, use the Setup Options section in the Edit Project Template page to enter project, financial, and reporting details so that it will be replicated when you create a project using that template later. Use the **Display** check box to hide or show certain sections within the project template. When you select a check box for a specific section, that section will be visible to users when they create new projects based on that template. Conversely, if the check box is not selected, the section will be hidden when you create a project.

Setup Options > Project

Section	Description
Basic Information	Define the basic information that must be added to a project created using the template. You can specify the following details: • **Priority**: Captures the priority (Low, Medium, High, and so on) of the project. You can define project priority values using the Setup and Maintenance > Manage Project Priority Values task. • **Work Type**: A classification of actual work. For example, a professional services enterprise may define work types such as Analysis, Design, and External Training. For more information, see the What's a work type topic in the Defining and Managing Financial Projects guide. • **Outline Display Level**: Specifies the level of detail that will be visible by default when viewing the project's work breakdown structure (WBS). Here's a breakdown of the different Outline Display Levels: Level 1: Only the top-level summary tasks of the project will be visible. Level 2: The top-level summary tasks and their immediate child tasks will be visible. Level 3: The top-level summary tasks, their immediate child tasks, and their immediate child tasks will be visible. By default, the Outline Display Level is set to Level 1. • **Service Type**: Helps you categorize and classify projects based on the type of service you deliver. • **Start Date**: Start date of the project. The Start Date in the project template is not necessarily the actual start date of a specific project created from the template. The actual start date can be adjusted during project initiation to accommodate specific circumstances or requirements. • **Finish Date**: End date of the project. The End Date in the project template is not necessarily the actual end date of a specific project created from the template. The actual end date can be adjusted during project initiation to accommodate specific circumstances or requirements. • **Planned Start Date**: Anticipated beginning date for the project. Planned Start Date provides a general guideline for when a project using this template is expected to commence. • **Planned Finish Date**: Anticipated end date for the project.

Section	Description
	If you select the **Enable budgetary control** check box, projects created from this template will have a set of features enabled which will help the project manager manage and monitor the project's budget throughout the lifecycle of the project. For more information, see the Overview of Budgetary Control topic in the Defining and Managing Financial Projects guide. Select the **Project Plan** project check box to use the template to create projects that are still in the planning stages, as against projects that are actively being executed.
Project Plan	Use this section to create a project plan that will become part of the project template. Once you create this project plan, all projects created using this template will automatically contain a copy of this plan. You can specify the timeline, tasks, and resources involved in a project. For example, a project plan for a software development project will include tasks (such as requirements gathering, design, development, testing, and deployment), schedule (with milestones, such as Completion of Design and Development of MVP), and resource allocation (such as developers, designers, and testers). You can't add a project plan before associating a project plan type with the project or template. For guidance on doing so, see the Project Plan Type section below. For more information, see the What's a planning project topic in the Defining and Managing Financial Projects guide.
Team Members	You can add team members to a project template. When you create projects from a template, team members defined in the template will be automatically added to the project. Let's assume a company trains newly recruited people on processes and tools, and in all training projects, the trainers are always the same. In this scenario, you can add the trainers to a project template so that the project manager needn't add them every time a similar project is executed.
Project Customers	Maintain customer information for billable and nonbillable projects. For example, you can define customers for information purposes on a proposal project. Similarly, you

Section	Description
	can define customers for a project before a contract is approved and associated with a project. When you associate a set of customer details with a project template, all projects created using this template will automatically be populated with those details.
Partner Organizations	An external party that collaborates on your project. For example, InFusion Corporation is working on a project for Business World. InFusion Corporation hires ABC Consulting as functional consultants. In the project created to track costs and work, the project manager for InFusion Corporation can enter ABC Consulting as a partner organization. When you associate a set of partner details with a project template, all projects created using this template will automatically be populated with those details.
Supplier Organizations	Define external entities or companies that provides goods, services, or resources to the project. Some examples of supplier organizations are Subcontractors, Suppliers, and Consultants. When you associate a set of supplier organization details with a project template, all projects created using this template will automatically be populated with those details.
Project Classifications	Use project classifications to group projects according to categories that 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. Here's an example for a class category used in an industry: InFusion Corporation designs and implements heavy engineering projects for government and private customers. Because InFusion Corporation maintains a diverse portfolio of contracts, the ability to track sector and funding is very important to corporate management. Therefore, the organization classifies projects by market sector and funding source. In this case, Market Sector and Funding Sources are the class category. When you associate project classification details with a project template, all projects created using this template will automatically be populated with those details.

Section	Description
	For more information, see the Examples for Using Class Categories topic in the Implementing Project Financial Management and Grants Management guide.
Project Plan Types	Project plan types contain default information used for creating a project plan and capturing progress. A project plan type helps you associate one or more reference data sets, specify plan, task, currency, rate, and progress settings, and select budget generation options. You must associate a project plan type with a project or project template before creating a project plan. You can then revise default values based on your requirements. For more information, see the Financial and Project Plan Types topic in the Implementing Project Financial Management and Grants Management guide.
Resource Breakdown Structures	A resource breakdown structure provides a structured way to categorize and organize resources based on their roles, skills, or departments. The resource breakdown structure consists of one or more hierarchies of resource elements. An element is a resource type, such as job or organization, or a combination of a resource type and a specified resource, such as the job of Principal Consultant or a person named Amy Marlin. For more information, see the How You Set Up Planning Resource Breakdown Structures topic in the Implementing Project Financial Management and Grants Management guide.
Attachments	You can add attachments to a project template. Attachments can be a file, text, or URL.
Additional Information	You can add additional information to a project template.

Setup Options > Financial

Section	Description
Budgets and Forecasts	You can add budget and forecast to a project template. Adding budgets to a project template ensures that all projects created from the template follow a consistent approach. This also helps in maintaining budget accuracy and comparability across different projects. For more information, see the Considerations for Creating Budgets and Forecasts topic in the Defining and Managing Financial Projects guide.

Section	Description
Transaction Controls	Define transaction controls to specify the types of transactions that are chargeable or nonchargeable for projects and tasks. Use transaction controls to configure your projects and tasks to allow only charges that you expect or plan. Let's look at an example from a construction project. In a construction project, labor, material costs, and equipment can be chargeable but internal administrative costs and training costs for employees need not be chargeable. For more information, see the Transaction Controls topic in the Implementing Project Financial Management and Grants Management guide.
Currency Conversion	Currency conversion ensures that financial data is reported in the correct currency. When you create a new project, the default value for the project currency is copied from the project ledger currency defined in the implementation options for the project-owning business unit. However, you can override the default currency and enter conversion attributes for the project.
Asset Information	You can define assets for capital projects to account for capital assets and retirement adjustment assets. Capital Assets represent tangible or intangible resources that an organization acquires for long-term use and that have a significant value. These assets are typically depreciated over their useful life. Examples of capital assets include: • **Equipment:** Machinery, tools, vehicles • **Buildings:** Factories, offices, warehouses • **Software:** Licenses, applications • **Land:** Property, real estate Retirement adjustment assets are created when a capital asset is retired or disposed off.
Asset Assignments	After you define a capital asset or a retirement adjustment asset for a capital project, you can assign the asset to a project, or to one or more tasks. You assign the asset to associate the asset with the underlying costs or proceeds of sale.

Section	Description
	By assigning assets to projects, you can track the costs associated with using those assets throughout the project lifecycle. For instance, in a construction project, assigning equipment (cranes, excavators) to specific tasks or phases of the project helps you track its usage and associated costs. For more information, see the Considerations for Asset Assignment to Projects or Tasks topic in the Using Project Costing guide.
Capitalization Options	You can define attributes that control the calculation of capitalized interest, allocation of unassigned and common asset costs, and the creation of capital events. **Capitalized Interest Calculation**: Let's look at an example in a construction project. In the construction of a new manufacturing facility, the project incurs significant expenditure during the construction phase. The capitalization options are used to calculate the interest expense that can be capitalized as part of the asset's cost. The straight-line method is used to allocate the capitalized interest evenly over the capitalization period. **Allocation of Unassigned and Common Asset Costs**: Let’s look at an example in a software development project. The project incurs costs for shared resources (IT infrastructure, administrative support) that are used by both the new product and existing products. The capitalization options are used to allocate a portion of these costs to the new product based on its relative revenue contribution. **Creation of Capital Events**: Let’s assume that a new equipment needs to be purchased for a project. When the purchase order for the new equipment is approved, a capital event is automatically created in the system. This event triggers the capitalization of the equipment cost and any associated interest or allocated costs. For more information, see the Capitalization Options for Project Types topic in the Implementing Project Financial Management and Grants Management guide.

Section	Description
Cross-Charge Options	Cross-charge is a mechanism for transferring costs and revenue between organizations, ensuring accurate project cost allocation when resources are shared across organizations. Cross-charge options on the project template allows a project to receive charges from other BUs, but with the flexibility to define exceptions. This involves specifying which provider BUs are explicitly disallowed from charging to the project, and conversely, specifying which provider BUs are permitted to charge, even when a general restriction is in place. Additionally, define the transfer price schedules and the fixed date if processing cross-charge using the borrowed and lent method, for labor and nonlabor transactions. For more information, see the Cross-Charge Options for Project Business Units topic in the Implementing Project Financial Management and Grants Management guide.
Organization Overrides for Project	Organization override allows manual reassignment of financial responsibility for project costs or revenues to a different organizational unit than the default, enabling flexibility in project ownership and cost allocation. Let's assume a company is outsourcing a portion of a project to an external vendor. The vendor will be responsible for completing specific tasks and will be paid for their services. The company can create an organization override for the project, reassigning the cost and revenue to the vendor's organization. This allows for accurate tracking of costs and revenue related to the outsourced portion of the project.

Setup Options > Reporting

Section	Description
KPI Notifications	Automated alerts that are triggered when a Key Performance Indicator (KPI) reaches a predefined threshold or exhibits a specific trend. KPI notification helps you proactively identify and address potential issues or capitalize on opportunities. For example, if the actual project costs exceed the budgeted amount by more than 10%, an email notification is sent to the project manager. For more information, see the KPI Components topic in the Implementing Project Financial Management and Grants Management guide.

Section	Description
Summarized Financial Plan Types	Define financial plan types that are used to summarize project performance data: • Forecasts: The previous and current approved versions are used • Budgets: The original and current baseline versions are used Some financial plan types are included in summarization by default, while others must be selected manually. For more information, see the Financial Plan Types Included in Summarization topic in the Defining and Managing Financial Projects guide.

Project Quick Entry

You can configure quick entry fields while defining a project template. Oracle Fusion Project Portfolio Management prompts you to enter information in quick entry fields when you create new projects from the template.

Quick Entry Fields

Select quick entry fields for project information that you want to enter (instead of accepting the template default) each time you create a project. The following table describes the quick entry fields on a project template.

Name	Description
Field Name	The field to display in the **Project Details** when creating a new project.

Specification	Enter a specification for the following fields:
	• Classification
	  ○ Select the class category to use for the classification.
	• Team Member
	  ○ Select the project role to use for the team member.

Prompt	Text for a field that appears only in the Project Details while you're creating a new project. The prompt field name isn't displayed after you create the project. For example, if you want to add a quick entry field for the project start date, update the prompt that appears during project creation to **Enter the project start date**. However the field in the project for all other pages will remain as Project Start Date.
Required	Choose whether you want to require entry for the field.

Name	Description
	Note: The **Legal Entity**, **Organization**, **Project Name**, and **Project Number** fields are required on all projects, and can't be optional quick entry fields.

The following table describes limitations for quick entry fields.

Field Name	Quick Entry Maximum
Classification	20
Partner organization	5
Project customer	5
Supplier organization	5
Team member	15 You can allow entry of more than one team member per role for all roles except Project Manager. You can enter only one project manager for a project.

After creating the project, you can add further values to the fields in the project.

How Expenditure Item Chargeable Status is Determined

Oracle Fusion Project Costing checks all levels of chargeable controls when you try to charge a transaction to a project.

The application checks the chargeable status when you enter a new cost transaction or transfer expenditure items to another project or task, and you save the record.

Settings That Affect Chargeable Status

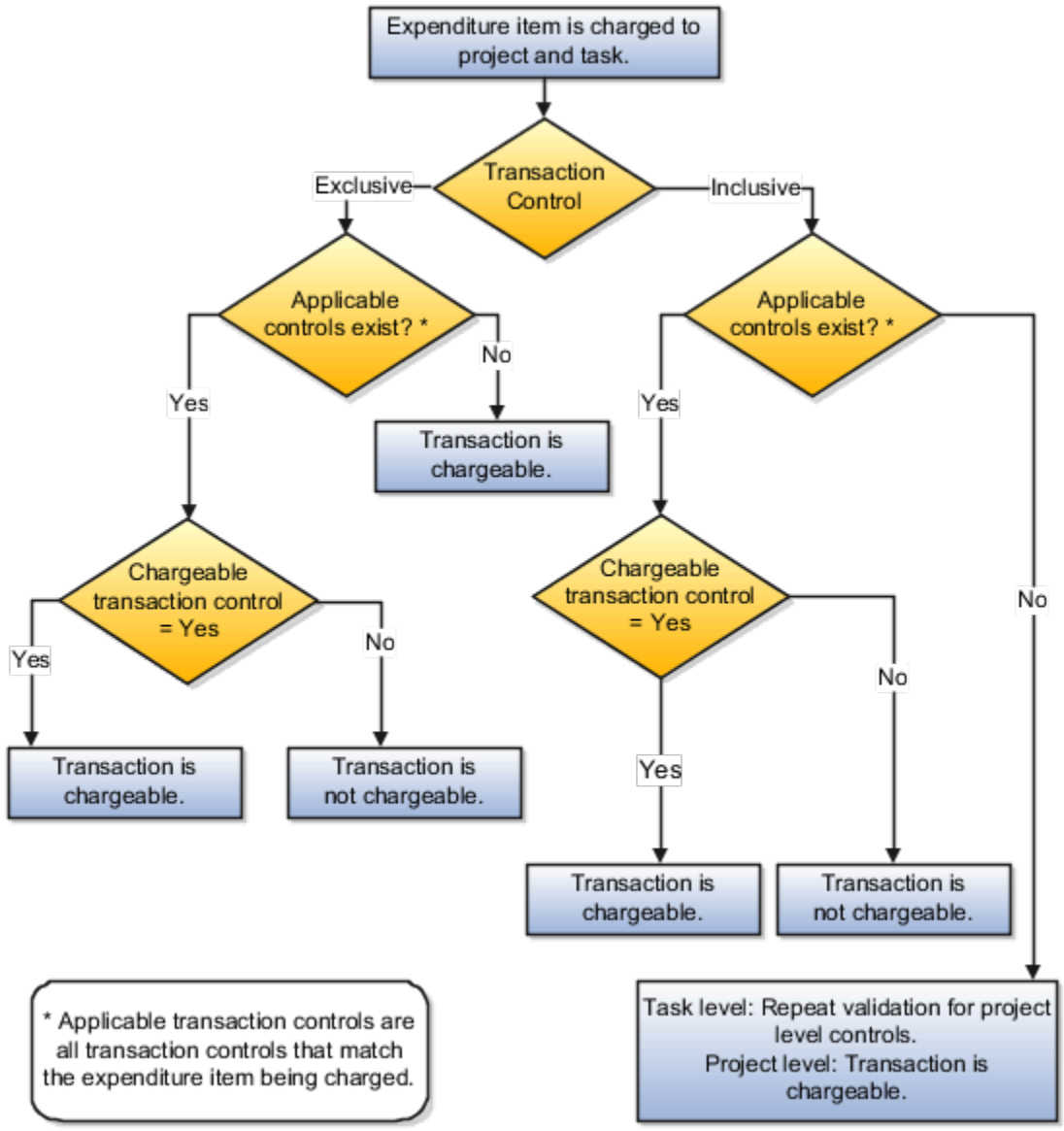
Use the exclusive and inclusive transaction control options to set the chargeable status for all expenditures charged to the project.

Inclusive transaction controls prevent all charges to a project or task except the charges you specifically allow. Specify the types of expenditures that you want to allow, and enable the **Chargeable** option.

By default, exclusive transaction controls allow all charges to a project or task. Specify the types of expenditures that you don't want charged to the project or task.

How Chargeable Status Is Determined

The following figure shows the steps that Oracle Fusion Project Costing uses to determine the chargeable status of an expenditure item.



If the inclusive option is selected and applicable transaction controls don't exist, then the transaction isn't chargeable. If applicable controls exist, then the application checks whether the transaction controls allow charges.

If the exclusive option is selected and there are no applicable controls, then the transaction is chargeable. If applicable controls exist, then the application checks whether the transaction controls allow charges.

For both inclusive and exclusive transaction controls, a transaction is chargeable if the **Chargeable** check box is enabled for an applicable control. If the **Chargeable** check box isn't enabled, then the transaction isn't chargeable.

Financial Plan Types Included in Summarization

Approved forecast and baseline budget versions of the following financial plan types are included in the summarization of project performance data by default.

- Approved Revenue Budget
- Approved Cost Budget
- Primary Revenue Forecast
- Primary Cost Forecast

A budget or forecast financial plan type may support both cost and revenue in one version.

Additional Financial Plan Types Included in Summarization

Apart from the financial plan types that are included in the summarization by default, you can manually include up to four financial plan types in summarization of project performance data.

Tip: You can include a financial plan type before it's used on a project for creating a version.

You can replace a financial plan type only until the project performance data is summarized for reporting. After that, you can only disable the financial plan type to exclude it from further summarization.

Transaction Controls

Define transaction controls to specify the types of transactions that are chargeable or nonchargeable for projects 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 nonbillable on your projects that are enabled for billing. For capital projects, you can define which items are capitalizable and noncapitalizable.

You create transaction controls by configuring the following components:

- Expenditure category
- Expenditure type
- Nonlabor resource
- Person
- Job and organization for the person
- Person type
- Chargeable status
- Billable or Capitalizable status
- From and To dates

You can create any combination of transaction controls that you want. For example, you can create a transaction control for a specific person and expenditure type, or you can create a combination for a person, expenditure type, and nonlabor resource. You also specify the date range to which each transaction control applies. If you don't enter

transaction controls, you can charge expenditure items from any person, expenditure category, expenditure type, and nonlabor resource to all lowest tasks on the project.

Chargeable Status

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're using inclusive transaction controls. For example, if you want to allow people to charge only labor to your project, you define a transaction control with the Labor expenditure category, and allow charges to the project or task.

You usually don't select Chargeable when you're using exclusive transaction controls because exclusive transaction controls list the exceptions to chargeable transactions.

System Person Type

You can use this control to specify whether transactions incurred by employees, contingent workers (contractors), or both are chargeable.

The following table describes the validation rules for system person type controls.

Transaction Control Type	System Person Type	Validation Rule
Inclusive	No value	Transactions incurred by employees and contingent workers aren't chargeable.
Inclusive	Employee	Only transactions incurred by employees are chargeable.
Inclusive	Contingent worker	Only transactions incurred by contingent workers are chargeable.
Exclusive	No value	Transactions incurred by employees and contingent workers aren't chargeable.
Exclusive	Employee	Transactions incurred by employees aren't chargeable.
Exclusive	Contingent worker	Transactions incurred by contingent workers aren't chargeable.

Billable and Capitalizable Status

You can define billable transactions for billable projects and capitalizable transactions for capital projects by selecting the billable or capitalizable option. You can choose between the options of **No** and**Task Level**. Select **No** if you want the charges to be nonbillable or noncapitalizable. Select **Task Level** if you want the billable or capitalizable status to use the value from the task to which the item is charged.

You define the billable or capitalizable status for a task in the **Task Details** section.

Note: The billable or capitalizable status of an individual transaction takes precedence over the billable or capitalizable status of a task.

From and To Dates

You can define transactions as chargeable for a date range by entering a From Date and To Date for each transaction control record.

Examples for Using Class Categories

Class categories and class codes enable you to classify projects. The following example illustrates how you can use project classifications.

Scenario

In Fusion Corporation designs and implements heavy engineering projects for government and private customers. Because InFusion Corporation maintains a diverse portfolio of contracts, the ability to track sector and funding is very important to corporate management.

Therefore, the organization classifies projects by market sector and funding source. The following table describes the two class categories used.

Class Category	Assign to All Projects	One Class Code per Project	Enter Percentage for Class Codes	Description
Market Sector	Yes	Yes	No	Market sector in which project work takes place. A single class code must be provided on the project for the class category.
Funding Source	Yes	No	Yes	Source of funding for project. At least one class code must be provided on the project for the class category. Percentages must be provided to indicate contribution for each source.

The following table describes the class codes available for the categories specified in the previous table.

Class Category	Class Code	Description
Funding Source	Private	Project funded by private organizations

Class Category	Class Code	Description
Funding Source	Federal	Project funded by the federal government
Funding Source	State or Local	Project funded by a state or local government
Funding Source	Foreign	Project funded by a foreign government
Market Sector	Utilities	Project involves utility or power plant construction
Market Sector	Waste	Project involves waste disposal or recycling facility constructions
Market Sector	Mechanical	Project involves mechanical design and engineering work
Market Sector	Structural	Project involves structural design and engineering work

InFusion management can easily assess projects based on the class categories and codes listed in the previous table.

For example, you specify a class category Funding Source on your project. With this category, you select two class codes: Private and Federal. If you assign 30 percent to Private and 70 percent to Federal, then you indicate the proportion of funding received for your project from the two sources.

On the other hand, because you must select a single market sector, you indicate whether project work involves utilities, waste, mechanical, or structural activities.

FAQs for Project Templates

Why are project classifications in a project template not copied when I use the template to create a project?

When you create a project from a template, classification details may not be copied if the template you plan to use does not have Classifications enabled for the Quick Entry screen.

Why are users unable to see project templates when they try to create a project?

Users without data security permissions assigned to their profiles can't view project templates.

To add data security to a user's profile:

1. Navigate to Setup and Maintenance and search for and select the **Manage Data Access for Users** task.
2. In the Manage Data Access for Users page, click **Create** and add Business Units or Project Owning Organization security for Project Administrator Role.
3. Save the changes.
4. Sign out from the application and sign in again.

Why am I not able to see the transaction control settings when I create a new project from a template?

One of the reasons why the project you created didn't have any transaction control settings is that the source project template didn't enable them. To enable transaction control settings:

1. In the Manage Project Template page, select your source project template.
2. In the Setup Options section, select the display checkbox for Transaction Controls.
3. Click **Save**.

Can I override the billable status of an expenditure item?

Yes. You can override the billable status of an expenditure item in the Edit Invoice page or in the Manage Project Costs page.

36 Grants Management Configuration

Overview of Grants Management Configuration

Configure Oracle Fusion Grants Management to create and maintain awards, award funding, and award projects.

Use the following tasks in the Setup and Maintenance work area to set up award objects. You can use these award objects when you create or maintain awards.

Task	What to Set Up Using this Task
Manage Audit Types	Audit types that can be performed on an award. For example, financial audit. Use these audit types when you define an institution so that you can perform the audit of programs.
Manage Award Purpose Codes	Purposes or reasons for which the award is created. For example, research, clinical trial, and so on.
Manage Award Types	Type of the award. The award types are Federal, Grants, and Private grants.
Manage Institution Contact Official Types	Official types to classify institution contacts as per their role in the institution or organization. For example, DEAN, PROVOST, and so on.
Manage Keywords	Keywords that you can associate with awards, award projects, or personnel. Use these keywords to track an award.
Manage Grants Reference Types	References for an award or award project for identification purposes. For example, proposal numbers serve as a reference to the award or award project.
Manage Certifications	Certifications that are required for awards and award projects to comply with regulatory requirements. For example, the use of nonhazardous equipment, provision of a smoke-free environment to receive federal funding, and so on.
Manage Terms and Conditions	Terms and conditions that the grantor specifies as written stipulations in an agreement or contract that the grantee is obligated to conform to.
Manage Assistance Listing Numbers	A database of all federal programs that are available to organizations in the USA. Import or create ALN programs and associate them with awards.
Manage Grants Personnel	Grants personnel who are allocated to manage awards. Review the primary job, primary organization, and contact details. If a conflict of interest exists, then indicate if the person has completed the review and the certified date.
Manage Sponsors	Customer organizations that grant funding to the award and award projects.
Manage Funding Sources	Funding sources that fund an award. They can be either external customers, internal organizations, or user-defined.

Task	What to Set Up Using this Task
Manage Institutions	Institutions that receive grants or awards to conduct research or studies. Create institutions and specify locations, references, and contact details.
Manage Award Templates	Award templates with features that are common in the awards you want to create. Define award templates and configure the various objects of an award. Use these award templates when you create awards.
Manage Grants Business Unit Implementation Options	Grants management and award contract attributes at the business unit level. Specify these attributes for processing financial transactions of an award and award project in the business unit. The default billing attributes are sent to the contract bill plan for billing purposes. Provide burn rate indicator percentage ranges to indicate the spending limits for award projects.

Note: You can't delete any of the award objects when used by an award, award project, sponsor, or award template.

Prerequisites to Create an Award Contract

Ensure that following prerequisites are met for the award contract to be created successfully.

- Identify the user who wants to create an award as a resource in the Resource Directory for the required business unit.
- Set the following two profile options to enable using multiple business units and set up the default business unit:
  - HZ_ENABLE_MULTIPLE_BU_CRM: Set this profile option to Yes to enable using multiple business units in Oracle Sales Cloud. The default value is No.
  - HZ_DEFAULT_BU_CRM: Set this profile option to the default Oracle Sales Cloud business unit.
- Set up the business functions for customer contacts.
- Assign access to the grants administrator to manage all the awards in a business unit.
- Assign access to the grants department administrator to access and manage only the awards and projects of a particular organization, not those of the entire business unit.
- Assign the business unit business function.
- Set up grants personnel.
- Set up the award contract numbering method. You can set the award contract numbering method to automatic using the **Manage Contract Types** task in the Setup and Maintenance work area.

Set Up Business Functions for Customer Contracts

You can specify various business function settings for customer contracts in a specific business unit. The selections you make for these business functions impact how Oracle Enterprise Contracts behaves during contract authoring.

1. In the Setup and Maintenance work area, go to the **Specify Customer Contract Management Business Function Properties** task:

- Offering: Grants Management
- Functional Area: Project Contracts

2. In the Select Scope dialog box, select the business unit in which you want to create the award from the **Business Unit** list and click **Apply and Go to Task**.
3. Complete the fields in the Specify Customer Contract Management Business Function Properties page as appropriate.
4. Click **Save and Close**.

Assign Access to Grants Administrator to Manage all Awards in a Business Unit

Assign the grants administrator role so that the user can access and manage all the awards in a business unit.

1. In the Setup and Maintenance work area, go to the **Manage Data Access for Users** task.
2. Select the user to whom you want to assign the grants administrator role from the **User Name** list.
3. Click the **Create** icon.
4. In the Create Data Access for Users dialog box, search and select the same user from the **User Name** list.
5. Select **Grants Administrator** from the **Role** list and **Business Unit** from the **Security Context** list.
6. Select the business unit to which the grants administrator must be granted access from the **Security Context Value** list.
7. Click **Save and Close**.
8. Click **Done**.
9. sign out and sign in as the grants administrator to view all the awards in the business unit.

Assign Access to Grants Department Administrator to Manage Awards and Projects of a Particular Organization

Assign the grants department administrator role so that the user can manage only those awards and projects that belong to a particular organization in a business unit, instead of all the organizations of the business unit.

1. In the Setup and Maintenance work area, go to the **Manage Data Access for Users** task.
2. Select the user to whom you want to assign the grants department administrator role from the **User Name** list.
3. Create the **Create** icon.
4. In the Create Data Access for Users dialog box, search and select the same user from the **User Name** list.
5. Select **Grants Department Administrator** from the **Role** list and **Award Organization Hierarchy** from the **Security Context** list.
6. Select the award organization hierarchy to which the grants department administrator must be granted access from the **Security Context Value** list and provide the organization hierarchy, version, and starting organization. The starting organization can be any node in the organization hierarchy. If you select a higher level organization, then the grants department administrator can access awards that belong to the starting organization and any of the organizations beneath the starting organizations.

   > **Note:** If the project organization isn't the same as the award organization, then select **Project Administrator** from the **Role** list, **Project Organization Classification** from the **Security Context** list, and the project organization classification to which the project administrator must be granted access from the **Security Context Value** list.

7. Click **Save and Close**.

8. Click **Done**.
9. Sign out and sign in as the grants department administrator to view the awards and projects that belong to the selected organization.

Note: Only organization hierarchies that are assigned to the project business unit in the Define Project Business Unit Implementations page are available as organization hierarchies in the Manage Data Access page for grants department administrators and the Award Organization Hierarchy security context. Only the award templates and project templates belonging to the organizations in the award organization hierarchy are available to the grants department administrator to create awards or projects.

Assign the Business Unit Business Function

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Assign Business Unit Business Function** task:
    - Offering: Grants Management
    - Functional Area: Organization Structures
2. In the Select Scope dialog box, select **Select and Add** from the **Business Unit** list and click **Apply and Go to Task**.
3. In the Manage Business Units page, select the business unit in which you want to create the award and click **Save and Close**.
4. In the Assign Business Functions page, verify that the checkbox against **Customer Contract Management** is selected.
5. Click **Save and Close**.

Related Topics

Manage Institutions

An institution is a higher-level internal body that receives grants or awards to conduct research or studies. For example, a university or a hospital that receives funding from an agency to conduct research. The institution follows a one-directional hierarchy.

1. In the Setup and Maintenance work area, go to the **Manage Institutions** task.
2. Perform any one of the following actions based on whether you want to create, edit, or delete an institution:
    - Click the **Create** icon to create an institution.
    - Select the institution you want to edit and click the **Edit** icon.
    - Select the institution you want to delete and click the **Delete** icon.

      Note: You can't delete an institution if it's used by a business unit or an award. Additionally, if contacts, certifications, or audits exist for an institution, then you can't delete an institution.
3. Add or edit the institution name, the name of the parent institution to which the current institution reports, the Data Universal Numbering System Number, NIH IPF number, and DHHS Entity number.
4. Under **General Information** tab, complete the following sections as appropriate:

Section	Description
Locations	An institution must have one primary location. The primary location is specified in the Federal Financial report. Specify one or more locations for an institution. Indicate if the location is: o An award location that issues invoices to sponsors. o A billing location that receives awards.
References	Reference for the institution for identification purposes. For example, research center, hospital, and so on.
Additional Information	Use the Institution flexfield to capture and track institution attributes that are specific to your organization.

5. Click **Contacts** and complete the following sections as appropriate:

Section	Description
Contact Persons	Persons to contact in an institution.
Official Types	Official types to classify institution contacts as per their role in the institution or organization. For example, DEAN, PROVOST, and so on. A contact can have multiple official type roles. Evaluate processes when requested by sponsors and issue certifications. You can carry out various audits for the institution and resolve audit alerts.

6. Click **Compliance**. Add or edit the certification name, certification period, status, sponsor who's requiring certification, and the relevant external reference number that a compliance committee supplies.
7. Click **Audits**. Add or edit audit types and program coverage details such as the sponsor, auditor, date range, and the report. The auditor issues alerts if any gaps are found. The resolution official works through the alerts and resolves them.
8. Click **Save and Close**.

Related Topics

- Why can't I delete this institution?
- What's an institution audit?

Manage Sponsors

Customer organizations from Customer Management are added as sponsors for grants management. Sponsors are a funding source for sponsored projects. When you add a sponsor, a funding source record is created indicating that the sponsor is an external funding source.

Internal sponsors can fund an award internally as internal funding sources, for example, university departments. They fund the sponsored work only if an award is enabled for cost sharing.

Note: An organization can only be a sponsor if it's assigned the External Legal Entity usage.

1. In the Setup and Maintenance work area, go to the **Manage Sponsors** task.
2. Perform any one of the following actions based on whether you want to create or edit a sponsor:
   - Click the **Create** icon to open the Create Sponsor page. Select the sponsor from the **Name** field.
     Note: Ensure that the customers exist before you add them as sponsors in grants management.
   - Select the sponsor you want to edit and click the **Edit** icon to open the Edit Sponsor page.
3. In the **Billing Details** tab, select **Federal** if this is a federal sponsor. complete these attributes for one or more accounts for the sponsor:

Attributes	Description
Sponsor Account Number	Identifies the sponsor account's bill-to and ship-to information.
Letter of credit	Specifies if the funding for the sponsor account is through a letter of credit.
Letter of Credit Details	If the sponsor account uses a letter of credit, then specify the billing sponsor and LOC number. You can use the current sponsor as the bill-to sponsor or specify a related sponsor as the bill-to sponsor. When you specify the related sponsor name and account number, the LOC number of the parent or related sponsor is displayed. **Note:** Use the Manage Customers page to specify a relationship between the bill-to customer accounts. Ensure that the relationship is valid, active, and the bill-to indicator is enabled. For example, for the National Institute of Health (NIH) customer account, the related customer account is DHHS with a bill-to relationship.
Primary	If the sponsor has more than one account, click Set Primary to mark the one primary account. The primary account is the initial bill-to and ship-to account for the bill plan and contract line when the award is submitted to create the contract lines and bill plan details.

4. Click **General Details** and complete the following attributes as appropriate:

Attributes	Description
Burden Schedule	Burden schedule of the award. This becomes the default burden schedule, provided that, if the award is created from an award template, then that award template doesn't include a burden schedule.
References	References to the sponsor for identification purposes. For example, industry type, such as state government or local government.

5. Click **Save and Close**.

If you changed the details of a letter of credit, the changes apply only to new awards created after this change. Manually update existing awards if the letter of credit change applies to them.

Related Topics

- Create a Grants Customer
- Letter of Credit Billing

Create a Grants Customer

Create a grants customer to enable a sponsor in the Awards work area.

1. In the Setup and Maintenance work area, go to the **Manage Customers** task.
    - Offering: Grants Management
    - Functional Area: Grants Management Foundation
2. Click the **Create** icon.
3. In the Create Organization Customer page, enter the required information in the Account Address section. Click the **Add Row** icon in the Address Purposes section to enter the bill-to contact details in the **Bill-to Site** column.

    > **Note:** The information in the Account Address section must match the information defined for Customer Account Site in the Manage Set Assignments for the Business Unit section.

4. Click **Save and Close**.

Create Additional Accounts for an Existing Customer

You can add additional accounts for an existing customer.

1. In the Setup and Maintenance work area, go to the **Manage Customers** task.
2. Search and select the customer that you want to add additional contacts to.
3. Click the **Create** icon in the Accounts section.
4. Complete the fields in the Create Account page as appropriate and click **Save and Close**.
5. Add a bill-to contact at the account level, as follows:
    a. Click the account number of the customer that you created.

b. In the Edit Account page, click the **Communication** tab, and then click **Edit Contacts**.
c. In the Edit Contacts page, click the **Create Contact** icon.
d. In the Create Contact dialog box, enter the details of the contact as appropriate, select **Contact** from the **Role Type** list, and click **OK**.
e. Click the **Set Primary Contact** icon to set this contact as a primary contact.
f. In the Account Contact Responsibilities section, click the **Add Row** icon.
g. Select **Bill to** in the **Responsibility Type** drop-down list, and then click the **Set Primary Responsibility** icon to set this as the primary responsibility type.
h. Click **Save and Close**.

6. Add a profile at the account level, as follows:

a. In the Edit Account page, click the **Profile History** tab. Ensure that the effective start and end dates are valid for the default profile class.
b. In the Profile History section, from the **Actions** menu click **Correct Record**.
c. In the Terms section, select the required payment term from the **Payment Terms** list.
d. Click **Save and Close**.

7. Add a profile at the site level, as follows:

a. In the Sites section of the Manage Customers page, click the site number.
b. Click the **Profile History** tab and then click **Create Site Profile**.
c. Ensure that the required payment term is selected and click **Save and Close**.

Define Customer Account Relationships

You can add a relationship between customer accounts. This relationship is used in the **Manage Sponsors** task for creating related sponsors.

1. In the Setup and Maintenance work area, go to the **Manage Customers** task.
2. Search and select the customer that you want to add a relationship to.
3. In the Accounts section, click the account number of the customer.
4. Click the **Relationships** tab, and then click the **Create** icon.
5. In the Create Customer Account Relationship dialog box, enter the account number of another customer with whom the customer wants to define a relationship in the **Related Account** field, select the **Bill-To** check box, select the account relationship set from the **Account Relationship Set** list, and click **OK**.
6. Click **Save and Close**.

Verify the Set Assignment

Complete the following steps to verify the set assignment:

1. In the Setup and Maintenance work area, go to the **Manage Business Unit** task.
2. In the Manage Business Units page, search for the business unit and select it in the Search Results section.
3. From the **Actions** menu, click **Manage Set Assignments** to view the set assignments for the selected business unit.
4. In the Manage Set Assignments page, ensure that the reference data sets are provided for the customer account relationship and customer account site.
5. Click **Save and Close**.
6. Click **Done**.

Assign the Organization Usage

You must assign the External Legal Entity usage to the organization before the organization can be a sponsor. You must have the Master Data Management Application Administrator job role.

1. Navigate to **Customer Data Management** > **Organizations**.
2. Search for the organization and click the name to edit it.
3. In the Usage Assignments tab, click **Add**.
4. In the new row, select the usage **External Legal Entity**.
5. Save and close.

Manage Grants Business Unit Implementation Options

Define the default award and billing attributes and set the burn rate indicators for a grants management business unit. The default award attributes are used to process the financial transactions for awards and award projects within the business unit.

The billing attributes are sent to the contract bill plan for billing purposes.

1. In the Setup and Maintenance work area, go to the **Manage Grants Management Business Unit Implementation Options** task:
    - Offering: Grants Management
    - Functional Area: Grants Management Foundation
2. In the Select Scope dialog box, select **Select and Add** from the **Business Unit** list and click **Apply and Go to Task**.
3. In the Manage Business Units page, select the business unit in which you want to create or edit the award and billing attributes and click **Save and Close**.
4. In the Edit Grants Management Business Unit Implementation Options page, complete the following attributes in the Default Award Attributes section:

Attributes	Description
Institution	Institution that receives grants or awards to conduct research or studies.
Contract Type	Type of the grant contract class that's available for award creation.
Burden Schedule	If the award isn't created from an award template, the value you enter in this field becomes the default burden schedule.
Days to Close	Number of days after the award end date. Use this time to manage award expenses incurred until the close date.

5. In the Default Billing Attributes section, complete the following attributes as appropriate:

Attributes	Description
Invoice Method	A set of rules, based on amounts, rates, and cost reimbursable schedule types, that calculate invoice amounts for the bill plan that's associated with the contract line on the associated project. The most commonly used methods Cost Reimbursable and Amount Based are supported for awards. To use invoice or revenue methods other than what's supported for the initial creation of the billing attributes of the contract, the contract can be amended after the initial creation to change the invoice or revenue methods.
Revenue Method	A set of rules, based on amounts, rates, and cost reimbursable schedule types, that calculate revenue amounts for the revenue plan that's associated with the contract line on the associated project.
Billing Cycle	Frequency at which invoices are created for the bill plan.
Net Invoice	Combine credits with new invoices instead of issuing separate credit memos.
Labor Format	Labor format to group labor items on an invoice line. Includes the source of columns, text, and layout.
Nonlabor Format	Nonlabor format to group nonlabor items on an invoice line. Includes the source of columns, text, and layout.
Event Format	Format to group events on an invoice line. Includes columns, text, and layout.
Invoice Grouping	Award invoice grouping option for award creation. For example, Associated Project.
Generated Invoice Status	Status of the generated invoice. Valid values are Draft, Released, or Submitted.
Transaction Type	Receivables transaction type for invoices and credit memos.

6. In the Burn Rate Indicators section, specify the burn rate indicator percentage ranges to indicate the spending limits for award projects. You can use the default values specified in the application or set the required threshold limits.

Burn Rate Indicators	Description	Default Value Range
On Track	Value to indicate that the budget amount assigned to the award project is within threshold limits.	51 to 100

Burn Rate Indicators	Description	Default Value Range
Overspending	Value to indicate that the budget amount assigned to the award project has reached a maximum threshold.	101 to 999
Underspending	Value to indicate that the budget amount assigned to the award project is below the minimum threshold.	-999.00 to 50

7. Click **Save and Close**.

Related Topics

- How do I determine the overspending and underspending limits?

Import Keywords

Import keywords from third-party applications into the Awards work area by using the ImportKeywords macro-enabled Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

For more information on the ImportKeywords Excel workbook template, see the File-Based Data Import for Oracle Project Portfolio Management guide.

To import keywords:

1. Prepare your data in the ImportKeywords macro-enabled Excel workbook template.
2. Click **Generate CSV File** in the template to create a comma-separated values file of keywords.
3. Navigate to the Scheduled Processes page.
4. Submit the **Load Interface File for Import** process to load the keywords from your CSV file into the applications related open interface tables.
5. Submit the **Import Keywords** process to bring the keywords into the Awards work area from the open interface tables.

Output Reports

After the **Import Keywords** process is complete, the **Import Keywords: Generate Reports** process automatically runs and creates the following output reports:

- Import Keywords Report: Lists the successfully imported keywords and the keywords that failed the validations.
- Import Keywords Rejections: Provides details about the keywords that failed the validations. The application generates this report only if the process results in errors.

Review the output reports and repeat the following steps until you import all the required keywords successfully:

- Correct the errors in the Import Keywords Rejections report.
- Generate CSV files for the corrected keywords.
- Upload the CSV files into the open interface tables.
- Submit the **Import Keywords** process.

Import Grants Personnel

Import grants personnel from third-party applications into the Awards work area by using the ImportGrantsPersonnel macro-enabled Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

For more information on the ImportGrantsPersonnel Excel workbook template, see the File-Based Data Import for Oracle Project Portfolio Management guide.

To import grants personnel:

1. Prepare your data in the ImportGrantsPersonnel macro-enabled Excel workbook template.
2. Click **Generate CSV File** in the template to create a comma-separated values file of grants personnel.
3. Navigate to the Scheduled Processes page.
4. Submit the **Load Interface File for Import** process to load the grants personnel from your CSV file into the applications related open interface tables.
5. Submit the **Import Grants Personnel** process to bring the grants personnel data into the Awards work area from the open interface tables.

Output Reports

After the **Import Grants Personnel** process is complete, the **Import Grants Personnel: Generate Reports** process automatically runs and creates the following output reports:

- Import Grants Personnel Report: Lists the successfully imported grants personnel and the grants personnel that failed the validations.
- Import Grants Personnel Rejections: Provides details about the grants personnel that failed the validations. The application generates this report only if the process results in errors.

Review the output reports and repeat the following steps until you import all the required grants personnel successfully:

- Correct the errors in the Import Grants Personnel Rejections report.
- Generate CSV files for the corrected grants personnel.
- Upload the CSV files into the open interface tables.
- Submit the **Import Grants Personnel** process.

Import Funding Sources

Import sponsors and funding sources from third-party applications into the Awards work area by using the ImportFundingSources macro-enabled Excel workbook template and running a few scheduled processes. The Excel template is part of the External Data Integration Services for Oracle Cloud feature.

For more information on the ImportFundingSources Excel workbook template, see the File-Based Data Import for Oracle Project Portfolio Management guide.

To import sponsors and funding sources:

1. Prepare your data in the ImportFundingSources macro-enabled Excel workbook template.
2. Click **Generate CSV File** in the template to create a comma-separated values file of sponsors and funding sources.
3. Navigate to the Scheduled Processes page.
4. Submit the **Load Interface File for Import** process to load the sponsors and funding sources from your CSV file into the applications related open interface tables.
5. Submit the **Import Funding Sources** process to bring the sponsors and funding sources into the Awards work area from the open interface tables.

Output Reports

After the Import Funding Sources process is complete, the Import Funding Sources: Generate Reports process automatically runs and creates the following output reports:

- Import Funding Sources Report: Lists the successfully imported sponsors and funding sources and the sponsors and funding sources that failed the validations.
- Import Funding Sources Rejections: Provides details about the sponsors and funding sources that failed the validations. The application generates this report only if the process results in errors.

Review the output reports and repeat the following steps until you import all the required sponsors and funding sources successfully:

- Correct the errors in the Import Funding Sources Rejections report.
- Generate CSV files for the corrected sponsors and funding sources.
- Upload the CSV files into the open interface tables.
- Submit the **Import Funding Sources** process.

FAQs for Grants Management Configuration

How can I get access to a business unit to create an award and contract?

When you create an award, a contract is automatically created in Enterprise Contracts. To create a contract, you must be defined as a user in Customer Relationship Management with the Contract Administrator resource role in the same business unit as the contract.

If you aren't already defined as a user in Customer Relationship Management, then your implementation administrator can identify you as a user and assign the Contract Administrator resource role to you using the Manage Resources task in the Setup and Maintenance work area.

How can I define grants personnel?

Follow these steps:

1. In the Setup and Maintenance work area, go to the **Manage Grants Personnel** task.
2. Click the **Add Row** icon.
3. Select the person to define as grants personnel from the **Person Name** list.
4. Select the **Principal investigator** check box if you want to add the person as a principal investigator.
5. Review the primary job, primary organization, and contact details.
6. If a conflict of interest exists, then indicate if the person has completed the review and the certified date.
7. Associate keywords to track persons.
8. In the Additional Information region, use the Award Personnel flexfield to capture and track personnel attributes that are specific to your organization.
9. Click **Save and Close**.

How can I define the budget periods in an award template?

Define budget periods in an award template so that when you create an award from an award template, budget periods are created based on the budget periods you defined in the award template.

1. In the Setup and Maintenance work area, go to the **Manage Award Templates** task.
2. Click the award template.
3. In the Edit Award Template page, under the **Financial** tab, specify the following budget period details:
    - Number of budget periods. The frequency of a budget period is yearly.
    - Name format of the budget period. Provide a prefix, for example, FY. Select the separator (to separate the prefix and budget period name) and the year format.

What's an institution audit?

An organization-wide examination carried out by an institution for expending federal funds and grants. The audit is typically performed by an independent body encompassing on the financial and compliance aspects. The objective is to provide assurance to the federal government about grants usage.

Use the **Manage Institutions** task in the Setup and Maintenance work area to specify the audit details for an institution. When you create an institution, select the **Audits** tab and specify the following details:

- Audit type

  > **Note:** You can't add an audit type that's already associated to the institution for a specified date range.

- Program coverage details such as the sponsor, auditor, date range, and the report.

The auditor issues alerts if any gaps are found. The resolution official works through the alerts and resolves them.

Why can't I delete this institution?

You can't delete an institution if it's used by a business unit or an award. Additionally, if contacts or certifications or audits exist for an institution, then you can't delete an institution.

How do I define the financial plan type to create an award project budget?

Define the financial plan type to create approved cost budgets for award projects.

1. In the Setup and Maintenance work area, go to the **Manage Financial Plan Types** task.
2. Click the financial plan for sponsored projects.
3. In the Edit Financial Plan Type for Sponsored Project page, select the **Set as default award financial plan type** and **Enable budgetary controls** check boxes and clear the **Use workflow for status changes** check box.

37 Public Business Events

Public Business Events

A public event, also known as business event, is a definable logical occurrence in a business scenario. It can be a high-level occurrence such as project creation or a specialized event such as status change.

If you want to perform operations in other systems based on public events in Oracle Fusion Cloud Project Management, then you can use public event features. Project Application Administrators must enable public event features using the ERP Business Events REST Endpoints if they aren't enabled by default.

After you enable these features, Oracle PPM Cloud sends a signal, along with a payload containing information about the public event, whenever an event occurs. The public event signal is also known as public event.

> **Note:** Oracle PPM Cloud sends signals irrespective of the source or cause of the event. For example, the application sends a project creation signal when a project is created using file-based data import, REST service, SOAP service, or user interface.

Integration developers and administrators can subscribe to public events from the Oracle Integration Cloud using the Oracle ERP Cloud Adapter. Then, they can use the information in the payload to configure event handlers that perform business operations. For more information, refer to Oracle ERP Cloud Adapter Capabilities and Developing Integrations with Oracle Integration Cloud Service.

Public event payload contains specific information pertaining to the event. You can use callback services to retrieve additional information from Oracle PPM Cloud.

Public Events for Project Financial Management

This table describes the public events supported by Project Financial Management.

Cloud Product	Supported Public Event	Description	Enabled by Default	First Release Available	Callback Service
Project Financial Management	Publishing Financial Project Progress	Signals whenever financial project progress is published.	No	18C	REST Service: Project Plan Operation: Publish Project Progress
Project Financial Management	Financial Project Plan Changes	Signals whenever financial project plan changes.	No	18C	REST Service: Project Plans Operation: Project Plan Change

Cloud Product	Supported Public Event	Description	Enabled by Default	First Release Available	Callback Service
Project Financial Management	Project Status Change	Signals whenever project status changes.	No	17D	REST Service: Projects Operation: Get a Project
Project Financial Management	Unplanned Project Costs	Signals whenever unplanned resources are added to the financial project plan.	No	22B	REST Service: Project Plans Operation: Project Plan Change

Public Events for Financial Project Plan Changes

If you want Oracle PPM Cloud to signal whenever task assignments are created or modified in a financial project plan or on selective baseline of tasks in a financial project plan, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to generate revenue whenever financial project plan changes occur, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when financial project progress is published.
2. Integration developers must create event handlers that subscribe to these signals and generate revenue whenever financial project plan changes occur.

Note: This public event doesn't initiate on selective baseline of tasks in a financial project plan.

Attributes in the Payload for Financial Project Plan Changes Event

This table lists and describes the attributes in the payload.

Attribute	Description
planVersionId	The unique identifier of the financial project plan version.
projectId	The identifier of the project.
planStatusCode	Code of the financial plan status.
projectCurrency	The currency in which the project is planned.
projectNumber	The number of the project.
eventType	The type of public event.

Attribute	Description
taskId	Identifier of the project task that's modified as part of the financial project plan changes.
taskNumber	Number of the task.
resourceName	Name of the resource assigned to the task in the financial project plan.
rbsElementId	Identifier of the resource included in the financial project plan.
resourceClass	Resource class of the resource. For, example, LABOR for Labor resources and, EQUIPMENT for equipment type resources.
planningCurrency	The currency in which the resource is planned.
unitOfMeasure	Unit of measure for the planned amounts. For example, HOURS for a Labor resource assignment.
planningStartDate	Planned start date of the resource assignment. This element contains both old and new values.
planningEndDate	Planned end date of the resource assignment. This element contains both old and new values. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalQuantity	Total planned quantity for the resource assignment. This element contains both old and new values. A new resource assignment to the task has the same value for oldValue and newValue attributes..
totalTcRawCost	Total transaction currency raw cost value of the resource assignment. This element contains both old and new values. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalTcBrdndCost	Total transaction currency burdened cost value of the resource assignment. This element contains both old and new values. A new resource assignment to the task has the same value for oldValue and newValue attributes.
tcRawCostRate	Total transaction currency raw cost rate value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.
tcBrdndCostRate	Total transaction currency burdened cost rate value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalPcRawCost	Total project currency raw cost value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalPcBrdndCost	Total project currency burdened cost value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalPfcRawCost	Total project functional currency raw cost value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.

Attribute	Description
totalPfcBrdndCost	Total project functional currency burdened cost value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.

Let's look at a sample payload that's generated when a new resource is added to a task.

```
<eb:business-event xmlsn:eb="http://vision.com/fabric/businessEvent" xmlsn:ob="http://xmlns.vision.com/apps/
projects/control/projectPlan/planChange/PlanChangeEvent">

<eb:name>ob:PlanChangeEvent<eb:name>

<eb:content>

<ns0:PlanChangeEventInfo>
<planVersionId>100100075548718100100075548718</planVersionId>
<projectId>300100152392374</projectId>
<projectNumber>sk_pub_event</projectNumber>
<eventType>PLAN_UPDATE</eventType>
<planningResource>

<taskId>100100075548714</taskId>

<taskNumber>1</taskNumber>

<resourceName>Labor</ResourceName>

<rbsElementId>100000011550441</rbsElementId>

<resourceClass>PEOPLE</resourceClass>

<planningCurrency>USD</planningCurrency>

<unitOfMeasure>HOURS</unitOfMeasure>


<planningStartDate>

<newValue>2018-09-04</newValue>

<oldValue>2018-09-04</oldValue>

</planningStartDate>


<planningEndDate>

<newValue>2018-12-02</newValue>

<oldValue>2018-12-02</oldValue>

</planningEndDate>


<totalQuantity>

<newValue>234.00000000</newValue>

<oldValue>234.00000000</oldValue>

</totalQuantity>
```

```
<totalTcRawCost>
<newValue>2340.00000000</newValue>
<oldValue>2340.00000000</oldValue>
</totalTcRawCost>

<totalTcBrdndCost>
<newValue>3346.20000000</newValue>
<oldValue>3346.20000000</oldValue>
</totalTcBrdndCost>

<tcRawCostRate>
<newValue>10.00000000</newValue>
<oldValue>10.00000000</oldValue>
</tcRawCostRate>

<tcBrdndCostRate>
<newValue>14.30000000</newValue>
<oldValue>14.30000000</oldValue>
</tcBrdndCostRate>

<totalPcRawCost>
<newValue>2340.00000000</newValue>
<oldValue>2340.00000000</oldValue>
</totalPcRawCost>

<totalPcBrdndCost>
<newValue>3346.20000001</newValue>
<oldValue>3346.20000001</oldValue>
</totalPcBrdndCost>

<totalPfcRawCost>
<newValue>2340.00000000</newValue>
<oldValue>2340.00000000</oldValue>
</totalPfcRawCost>

<totalPfcBrdndCost>
```

```
<newValue>3346.20000001</newValue>

<oldValue>3346.20000001</oldValue>

</totalPfcBrdndCost>

</planningResource>

<nso:PlanChangeEventInfo>

</eb:content>
</eb:business-event>
```

Related Topics

Public Events for Plan Status Changes

If you want Oracle PPM Cloud to signal whenever the status of a financial project plan, project budget, award budget, or project forecast changes, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to notify stakeholders to initiate subsequent tasks or automatically initiate other actions like a project forecast approval can initiate an event for invoice generation, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals once the project manager or project administrator changes status on a project budget or project forecast.
2. Integration developers must create event handlers that subscribe to these signals and notify stakeholders to initiate subsequent tasks or automatically initiate other actions.

Note: This public event doesn't initiate on the deletion of the project budget, award budget, or project forecast version or on selective baseline of tasks in a financial project plan.

Attributes in the Payload for Plan Status Changes Event

This table lists and describes the attributes in the payload.

Attribute	Description
planVersionId	The unique identifier of the financial project plan, project budget, award budget, or project forecast version.
projectId	The identifier of the project.
priorPlanVersionId	The unique identifier of the financial plan version from which old values are derived. Rendered only when an old value for totalPcBrdndCost or totalPcRevenue attribute is present in the payload.
objectTypeCode	Code of the business object. Valid values are PROJECT_BUDGET, AWARD_BUDGET, or PROJECT_FORECAST.
eventType	The type of public event.

Attribute	Description
planStatusCode	Code of the financial plan status.
projectCurrency	The currency in which the project is planned.
totalPcBrdndCost	Total project currency burdened cost value of the resource assignment. A new resource assignment to the task has the same value for oldValue and newValue attributes.
totalPcRevenue	Total project currency revenue amounts.

Let's look at a sample payload that's generated when a budget version is created.

```
<PlanStatusChangedEventInfo xmlns="http://xmlns.vision.com/apps/projects/control/budgetsAndForecasts/
planStatusChange/PlanStatusChangedEvent">
 <planVersionId>300100578142608</planVersionId>
 <projectId>300100578142593</projectId>
 <objectTypeCode>PROJECT_BUDGET</objectTypeCode>
 <projectCurrency>USD</projectCurrency>
 <eventType>PLAN_STATUS_UPDATE</eventType>
 <planStatusCode>
 <newValue>CURRENT_WORKING</newValue>
 </planStatusCode>
 <totalPcBrdndCost>
 <newValue>128988</newValue>
 </totalPcBrdndCost>
</PlanStatusChangedEventInfo>
```

Public Events for Publishing Financial Project Progress

If you want Oracle PPM Cloud to signal whenever financial project progress is published, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to generate revenue whenever financial project progress is published, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when financial project progress is published.
2. Integration developers must create event handlers that subscribe to these signals and generate revenue whenever financial project progress is published.

Attributes in the Payload for Publishing Financial Project Progress Event

This table lists and describes the attributes in the payload.

Attribute	Description
projectID	Unique identifier of the project.

Attribute	Description
projectNumber	Number of the project.
asOfDate	The project progress as of the system date.
physicalPercentComplete	The physical work completion percentage.
previousPhysicalPercentComplete	The physical work completion percentage of previous instance.
primaryPhysicalPercentCompleteBasis	The basis of the physical percent complete for primary resource.
etcCost	The estimate-to-complete cost.
eacCost	The estimate-at-complete cost.
baselinedPlannedCost	The value of the planned cost at baseline.
etcEffort	The estimate-to-complete effort.
eacEffort	The estimate-at-complete effort.
baselinedPlannedEffort	The value of the baseline planned effort.
earnedValueCost	The value of the earned value cost.
earnedValueEffort	The value of the earned value effort.
currencyCode	The code of the currency used.
publishedDate	The project progress publish date in YYYY-MM-DD format.
publishedBy	The name of the person who published the project progress.

Let's look at a sample payload that's generated when financial project progress is published.

```
<eb:business-event xmlsn:eb="http://vision.com/fabric/businessEvent" xmlsn:ob="http://xmlns.vision.com/apps/projects/control/progress/publishProgress/PublishProgressEvent">

<eb:name>ob:PublishProgressEvent<eb:name>

<eb:content>

<ns0:PublishProgressEventInfo>

<ns0:projectId>300100005141135</ns0:projectId>

<ns0:projectNumber>0001 PJO CDRM AM</ns0:projectNumber>
```

```
<ns0:projectName>0001 PJS CDRM AM</ns0:projectName>
<ns0:asOfDate>2018-06-26</ns0:asOfDate>
<ns0:physicalPercentComplete>21.3306265828</ns0:physicalPercentComplete>
<ns0:previousPhysicalPercentComplete>0</ns0:previousPhysicalPercentComplete>
<ns0:primaryPhysicalPercentCompleteBasis>COST</ns0:primaryPhysicalPercentCompleteBasis>
<ns0:etcCost>59199.75</ns0:etcCost>
<ns0:eacCost>1492099.75</ns0:eacCost>
<ns0:baselinedPlannedCost>63849.7500000699875</ns0:baselinedPlannedCost>
<ns0:etcEffort>1373</ns0:etcEffort>
<ns0:eacEffort>51373</ns0:eacEffort>
<ns0:baselinedPlannedEffort>1683</ns0:baselinedPlannedEffort>
<ns0:earnedValueCost>13619.5517465487276026185568</ns0:earnedValueCost>
<ns0:earnedValueEffort>739.5762330717</ns0:earnedValueEffort>
<ns0:currencyCode>USD</ns0:currencyCode>
<ns0:publishedDate>2018-06-26</ns0:publishedDate>
<ns0:publishedBy>ABRAHAM.MASON</ns0:publishedBy>
</ns0:PublishProgressEventInfo>
</eb:content>
</eb:business-event>
```

Related Topics

Public Events for Project Status

If you want Oracle PPM Cloud to signal whenever a project is created or a project status is changed, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to create a contract whenever project status changes to Approved, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when a project status changes to Approved.
2. Integration developers must create event handlers that subscribe to these signals and create a contract whenever project status changes to Approved.

Attributes in the Payload for Public Events on Project Status Change

This table lists and describes the attributes in the payload.

Attribute	Description
projectID	Unique identifier of the project.
projectName	Name of the project.
projectNumber	Number of the project.
projectDescription	Description of the project.
projectStatus	System code of the project status. Typical project status codes are ACTIVE and CLOSED.
projectStatusName	Name of the project status. Typical project statuses are Active and Closed.
projectOrganization	Name of the project owning organization.
projectType	Name of the project type associated to the project.
projectManagerName	Name of the project manager.
projectManagerUserName	User name of the project manager.
statusComment	Comment provided during status change.
startDate	Start date of the project. Valid format is YYYY-MM-DD.
finishDate	Finish date of the project. Valid format is YYYY-MM-DD.
projectUnit	Name of the project unit associated to the project.
businessUnit	Name of the business unit associated to the project.

Let's look at a sample payload that's generated when project status is changed.

```
<ns0:ProjectStatusEventInfo>

<ns0:projectId>300100005141135</ns0:projectId>

<ns0:projectName>0001 PJS CDRM AM</ns0:projectName>

<ns0:projectNumber>0001 PJS CDRM AM</ns0:projectNumber>

<ns0:projectDescription>Template to be Employed for PMEA RRF Flow.</ns0:projectDescription>

<ns0:projectStatus>APPROVED</ns0:projectStatus>

<ns0:projectStatusName>Approved</ns0:projectStatusName>

<ns0:projectOrganization>Vision Operations</ns0:projectOrganization>
```

```
<ns0:projectType>PJS CPBF Billable</ns0:projectType>

<ns0:projectManagerName>Abraham Mason</ns0:projectManagerName>

<ns0:projectManagerUserName>ABRAHAM.MASON</ns0:projectManagerUserName>

<ns0:statusComment/>

<ns0:startDate>2010-10-01</ns0:startDate>

<ns0:finishDate>2012-10-31</ns0:finishDate>

<ns0:projectUnit>Project Operations</ns0:projectUnit>

<ns0:businessUnit>Vision Operations</ns0:businessUnit>

</ns0:ProjectStatusEventInfo>
```

Related Topics

Public Events for Unplanned Project Costs

If you want Oracle PPM Cloud to signal whenever unplanned resources are added to or updated on the financial project plan, then you must use the ERP Business Events REST Endpoints to enable the feature.

For example, if you want to notify the project manager of an unplanned project cost, then:

1. You, as a project application administrator, must enable this feature. Oracle PPM Cloud signals when there are unplanned project costs on the financial project plan.
2. Integration developers must create event handlers that subscribe to these signals and track unplanned project costs on the financial project plan.

Set the Enabled Indicator for the UnplannedProjectCost Business Event Code

Use the ERP Business Events REST API to set the enabled indicator to **TRUE** for the **UnplannedProjectCost** Business Event Code. Once you set it. you can subscribe to the event in Oracle Integration Cloud to perform additional actions when an unplanned project cost is identified.

The following examples show how to retrieve and update the business event record:

ERP Business Events REST API Definition - /fscmRestApi/resources/11.13.18.05/erpBusinessEvents/

- Submit a GET request on the REST resource to retrieve the Business Event ID for the **UnplannedProjectCost** Business Event Code.
- Submit a PATCH request on the REST resource to update the enabled indicator: /fscmRestApi/resources/11.13.18.05/erpBusinessEvents/{ErpBusinessEventId}

Example of contents of the request body in JSON format:

```
{

"EnabledFlag": true
```

}

Attributes in the Payload for Unplanned Project Costs Event

This table lists and describes the attributes in the payload.

Attribute	Description
planVersionId	The unique identifier of the financial project plan version.
projectID	Unique identifier of the project.
projectNumber	The number of the project.
eventType	The type of public event.
planningResource	Resource used for financial planning in the financial project plan.
taskId	Identifier of the project task that's modified as part of the financial project plan changes.
taskNumber	Number of the task.
planningElementId	Identifier of the task assignment on the financial project plan.
resourceName	Name of the resource assigned to the task in the financial project plan.
rbsElementId	Identifier of the resource included in the financial project plan.
resourceClass	Resource class of the resource. For, example, LABOR for Labor resources and, EQUIPMENT for equipment type resources.
planningCurrency	The currency in which the resource is planned.
unitOfMeasure	The unit of measure for the resource.
totalActualQuantity	Total actual quantity of resource effort spent on a task or project, including labor and equipment.
totalTCActualRawCost	Total actual currency raw cost value of the resource assignment.
totalTCActualBrdndCost	Total actual currency burdened cost value of the resource assignment.
totalPCActualRawCost	Total actual raw cost amounts in project currency of the resource assignment.
totalPCActualBrdndCost	Total actual burdened cost amounts in project currency of the resource assignment.

Attribute	Description
totalPFCActualRawCost	Total actual raw cost amounts in project ledger currency of the resource assignment.
totalPFCActualBrdndCost	Total actual burdened cost amounts in project ledger currency of the resource assignment.
totalPlannedQuantity	Total planned quantity for the resource assignment.
totalTCRawCost	Total planned currency raw cost amounts of the resource assignment.
totalTCBrdndCost	Total planned burdened cost amounts of the resource assignment.
totalPCRawCost	Total planned currency raw cost value of the resource assignment.
totalPCBrdndCost	Total planned currency burdened cost value of the resource assignment.
totalPFCRawCost	Total planned project ledger currency raw cost value of the resource assignment.
totalPFCBrdndCost	Total planned project ledger currency burdened cost value of the resource assignment.

Let's look at a sample payload that's generated when unplanned resources are added to the financial project plan:

```
<?xml version="1.0" encoding="UTF-8"?>
 <inputVariable>
 <ns0:UnplannedProjectCostInfo xmlns:ns0="http://xmlns.vision.com/apps/projects/control/budgetsAndForecasts/
unplannedProjectCost/UnplannedProjectCost" xmlns:xsi="http://www.vision.org/2001/XMLSchema-instance">
 <ns0:projectId>300100550701997</ns0:projectId>
 <ns0:projectNumber>TM001</ns0:projectNumber>
 <ns0:planVersionId>100100464971689</ns0:planVersionId>
 <ns0:eventType>UNPLANNED_RESOURCES</ns0:eventType>
 <planningResource>
 <taskId>100100464971678</taskId>
 <taskNumber>1.2</taskNumber>
 <planningElementId>100100465342518</planningElementId>
 <resourceName>Vision Operations</resourceName>
 <rbsElementId>100100464971659</rbsElementId>
 <resourceClass>FINANCIAL_ELEMENTS</resourceClass>
 <planningCurrency>USD</planningCurrency>
 <unitOfMeasure>DOLLARS</unitOfMeasure>
 <totalActualQuantity>0</totalActualQuantity>
 <totalTCActualRawCost>3000.00000000</totalTCActualRawCost>
 <totalTCActualBrdndCost>3000.00000000</totalTCActualBrdndCost>
 <totalPCActualRawCost>3000.00000000</totalPCActualRawCost>
 <totalPCActualBrdndCost>3000.00000000</totalPCActualBrdndCost>
 <totalPFCActualRawCost>3000.00000000</totalPFCActualRawCost>
 <totalPFCActualBrdndCost>3000.00000000</totalPFCActualBrdndCost>
 </planningResource>
 <planningResource>
 <taskId>100100464971680</taskId>
 <taskNumber>1.1</taskNumber>
 <planningElementId>100100465342519</planningElementId>
 <resourceName>Vision Operations</resourceName>
 <rbsElementId>100100464971659</rbsElementId>
 <resourceClass>FINANCIAL_ELEMENTS</resourceClass>
 <planningCurrency>USD</planningCurrency>
```

```
<unitOfMeasure>DOLLARS</unitOfMeasure>
<totalActualQuantity>0</totalActualQuantity>
<totalTCActualRawCost>3000.00000000</totalTCActualRawCost>
<totalTCActualBrdndCost>3000.00000000</totalTCActualBrdndCost>
<totalPCActualRawCost>3000.00000000</totalPCActualRawCost>
<totalPCActualBrdndCost>3000.00000000</totalPCActualBrdndCost>
<totalPFCActualRawCost>3000.00000000</totalPFCActualRawCost>
<totalPFCActualBrdndCost>3000.00000000</totalPFCActualBrdndCost>
</planningResource>
</ns0:UnplannedProjectCostInfo>
</inputVariable>
```

38 Auditing

Audit for Project Management Objects

Track the changes made to business objects by leveraging an audit mechanism that provides details about the updates (who made the updates, what was changed, and when) made to them. In Project Management, following objects are available for auditing.

Objects available for auditing

Business Objects	Benefits of Auditing
Rate Schedules	Compare the changes made to the costing, billing, and planning rate schedules. These include: • Hourly cost rates for people, jobs, and nonlabor resources • Rates and markups for labor and nonlabor expenditures • Rates for financial planning
Rates	Compare the old and new values for rates and markup percentages if your business process involves updating existing values instead of ending them and creating new rates and markups. Additionally, you can track when and who curtailed or extended the duration of existing rates and markup percentages.
Project	Track changes to the project settings such as the project or task owning organizations, that directly impact changes in costing and revenue distribution accounting. Also, view changes to the important attributes like Project Name, Project Number, Project Status, and Project Dates.

Set Up Audit Policies

Application implementation consultants having the Manage Audit Policies privilege, under the Audit Management Duty, can configure audit policies using the Setup and Maintenance work area.

Audit setup task

Setup Task	Description
Manage Audit Policies	The Manage Audit Policy task lists Product Hub business objects and their attributes available for audit. You can re-calibrate your audit policy to suit changing business needs.

To enable audit for the objects, perform the following steps.

1. In the Setup and Maintenance work area, go to the **Manage Audit Policies** task.
2. On the Manage Audit Policies page, in the Oracle Fusion Applications section, confirm that **Audit Level** field is set to **Auditing**, and click **Configure Business Object Attributes**.
3. On the Configure Business Object Attributes page, select **Project Foundation** as the product.
4. In the Objects table, enable audit for the objects as required.
5. Select an enabled object. The attributes enabled for audit by default for the selected object appear in the Audited Attributes section.

6. In the **Audited Attributes** section, click **Create** to display the **Select and Add Audit Attributes** window. You can enable or disable attributes for auditing as required.
7. Click **Ok**.
8. Click **Save and Close**.

For auditing descriptive flexfields, select the business object and click **Create**. Then, enable the **Flexfields (Additional Attributes)** check box from the **Audited Attributes** column to select all the additional attributes for audit purposes. The **Flexfields** check box is available only when you have configured the flexfields in the application.

Audit History

You can keep a close tab on the objects enabled for auditing by viewing audit reports that list the nature, time, and the user who effected the change. You must have the View Audit History privilege under the Audit Reporting Duty to view audit reports.

To view audit reports for objects, perform the following steps:

1. Click **Navigator** > **Tools** > **Audit Reports** .
2. On the Audit Reports page, enter a date in the **Date** field.
3. In the Product field, select **Project Foundation**.
4. In the **Business Object Type** field, select the object as required.
5. Enable the **Include child objects** option if you select **Rate Schedule** as the business object type.
6. Click **Search**.

Enable the option **Show Attribute Details** and select all or specific attributes as required to view old and new values for the selected attributes in the audit report.

The default search displays a summary of the audit history in the search results table, with key data such as date, user, product, event type, business object type, and description. If you want a detailed report, search again with modified search criteria. You can review the change history online or export it to a spreadsheet and review it offline.

> **Note:** If the report contains more records but aren't displayed because of the set limit, you will see this message in the last row of the report: “Results were limited to xxxx no. of rows. Contact your administrator to reset the limit, or refine the criteria and search again.”

Transaction Analysis for Project Costs

Project application administrators can use the transaction analysis reports to analyze how a cost rate was calculated for project cost transactions. The reports help to identify causes where a cost rate can’t be determined or a cost rate value is not as expected.

Use the Transaction Analysis for Project Costs Report and Transaction Analysis for Unprocessed Project Costs Report to:

- Identify the root causes for unprocessed transaction errors such as:
  - Rate wasn’t found for the person or person job.
  - Rate wasn’t found for the nonlabor transaction.
  - Application can't find a costing rule for the labor transaction.
  - A rate wasn't found for job X because the job doesn't exist in the job set or isn't mapped to another job in the job set.

- Understand how raw cost rates are derived for unprocessed and processed project cost transactions. For example:
  - Was a labor costing override used?
  - Was a project cost rate override used?
  - Was the correct date-effective rate schedule entry used?
  - Was the correct organization costing rule used for the expenditure organization?

Example

Let's look at an example that describes how a project application administrator uses the Transaction Analysis for Unprocessed Project Costs Report to assist a project accountant in troubleshooting a costing error.

A project accountant routinely checks for unprocessed project cost exceptions in the Overview page of the Costs work area:

1. The project accountant navigates to the Overview page in the Costs work area.
2. In the Overview page, in the Unprocessed Transactions tab, they notice a number of transactions having exceptions.
3. The project accountant selects a row with exceptions. The exception could be for a specific business unit, transaction source, or document. They drill down to the individual unprocessed transactions using the link in the Exceptions column.
4. The project accountant then clicks the icon in the Errors Exist column for a single unprocessed transaction. The Errors dialog box opens which displays the error, for example: The application can't find a costing rule for the labor transaction.
5. The project accountant makes a note of the reference number and contacts a project application administrator to help resolve this issue, so that they can successfully import the cost transaction.

A Project application administrator can help resolve this issue in the following manner.

1. Navigate to the Reports and Analytics work area.
2. Click **Browse Catalog**.
3. Navigate to **Shared Folders** > **Projects** > **Projects Maintenance** and open the **Transaction Analysis for Unprocessed Costs Report**
4. Enter the Unprocessed Transaction Reference as a parameter and click **Apply**. The application downloads the report output.
5. Open the report output in Excel. The report has four sheets:
   - **Report Details** - Displays the report parameter values, and runtime details such as the date the report was run and by which user.
   - **Transaction Details** - Provides a summary of key transaction attributes to assist analysis.
   - **Transaction Errors** - Provides a summary of any existing errors or warnings relating to the transaction.
   - **Costing** - Provides a detailed breakdown of cost processing and related setups.
6. Open the Costing sheet in the output report. The tab has number of sections, each of which has detailed guidance. To summarize:
   - **Cost Processing** - Where a transaction is already costed, this section shows the outcomes of those successful events.
   - **Simulated Cost Processing** - When the report is run, the transaction is re-processed by costing in simulation mode. This serves two purposes:
     - To check whether the costing error reported in the application still exists. For example, since the error was raised another user may have fixed the costing setups, but has yet to re-run Import Costs.

        - Where a transaction has already been costed the simulated outcome can be compared to the existing cost outcomes, for example, to identify where there have been any changes in costing setups since the transaction was processed.
    - **Simulated Cost Processing Errors** - Details any errors resulting from the simulated cost processing above.
    - **Cost Processing Setups** -Lists out all of the application setups that relate to each of the costing methods that are used to calculate raw costs.
7. Assisted by conditional formatting, the project application administrator can see which costing setups (if any) are a match for the transaction being interrogated, and the order of precedence in which they are applied during costing. For example, the project application administrator may notice that:
    - There are labor costing overrides for the person associated with the transaction, but they're not date effective as of the transaction date.
    - There are organization costing rules matching the expenditure business unit of the transaction, but they are not a match for the expenditure organization.
8. Depending on the root cause of the costing exception as identified above, the project application administrator can take the necessary corrective actions. For example, they could add a new organization costing rule for the relevant business unit and expenditure organization.
9. Run the Import Costs process so that the unprocessed cost is imported successfully.

Transaction Analysis for Project Planning Resource Assignments

Project application administrators can use the Transaction Analysis for Project Planning Resource Assignments report to analyze how a cost rate was calculated for project planning resource assignments. The report helps to identify causes where a cost rate can’t be determined or a cost rate value is not as expected.

Use the Transaction Analysis for Project Planning Resource Assignments Report to:

- Identify the root causes for planning resource assignment errors such as:
    - Rate wasn’t found for the person or person job.
    - Rate wasn’t found for the nonlabor transaction.
    - Application can't find a costing rule for the labor transaction.
    - A rate wasn't found for job X because the job doesn't exist in the job set or isn't mapped to another job in the job set.
- Understand how raw cost rates are derived for planning resource assignments. For example:
    - Was a labor costing override used?
    - Was a project cost rate override used?
    - Was the correct date-effective rate schedule entry used?
    - Was the correct organization costing rule used for the expenditure organization?
    - Was an actual cost rate or planning cost rate used?

Example

Let's look at an example that describes how a project application administrator uses the Transaction Analysis for Project Planning Resource Assignments Report to assist a project manager in troubleshooting a costing error in the financial project plan, budget, or forecast.

1. A project manager encounters one or more costing errors when they create a project forecast. The project manager has to clear the errors before submitting the forecast for approval.
2. The project manager chooses an error to investigate first, for example 'A raw cost rate wasn't found for the planning transaction'.
3. The project manager makes a note of the following details, for example by taking a screenshot:
    - Project name
    - Financial plan type
    - Plan version
    - Task
    - Planning resource
    - Planning period
4. The project manager sends the above details to their project application administrator to help resolve this issue so that they can successfully submit the forecast.

A project application administrator can then help resolve this issue in the following manner:

1. Navigate to the **Reports and Analytics** work area.
2. Click **Browse Catalog**.
3. Navigate to **Shared Folders > Projects > Projects Maintenance** and open the **Transaction Analysis for Project Planning Resource Assignments Report**.
4. Enter the parameter values provided by the project manager and click **Apply**. The application downloads the report output.
5. Open the report output in Excel. The report has four sheets:
    - **Report Details** - Displays report parameter values and runtime details, such as the date the report was run and by which user.
    - **Transaction Details** - Provides a summary of key resource assignment attributes to assist analysis.
    - **Transaction Errors** - Provides a summary of any existing errors or warnings relating to the resource assignment.
    - **Costing** - Provides a detailed breakdown of cost processing and related setups.
6. Open the **Costing** sheet in the output report. The sheet has a number of sections, each of which has detailed guidance. To summarize:
    - **Cost Processing** - Where a resource assignment is already costed, this section shows the outcomes of those successful events.
    - **Simulated Cost Processing** - When the report is run, the resource assignment is reprocessed by costing in simulation mode. This serves two purposes:
        - To check whether the costing error reported in the application still exists. For example, since the error was raised another user may have fixed the costing setups, but has yet to revisit the resource assignment to clear the error.
        - Where a transaction has already been costed, you can compare the simulated outcome to the existing cost outcomes. You can, for example, identify where there have been any changes in costing setups since the transaction was processed. For transactions created before the 22D release, you won't see the Costing Date and Costing Method for previous cost processing.

- **Simulated Cost Processing Errors** - Details any errors resulting from the simulated cost processing described above.
- **Cost Processing Setups** - Lists out all of the application setups that relate to each of the costing methods that are used to calculate raw costs.

7. Assisted by conditional formatting, the project application administrator can see which costing setups (if any) are a match for the resource assignment being interrogated, and the order of precedence in which they are applied during costing. For example, the project application administrator may notice that:
   - There are labor costing overrides for the person associated with the resource assignment, but they're not date effective as of the planning date.
   - There are organization costing rules matching the expenditure business unit of the resource assignment, but they are not a match for the expenditure organization.
   - The planning options for the plan version are configured to use planning rates, as opposed to actual rates.
8. Depending on the root cause of the costing exception as identified above, the project application administrator can take the necessary corrective actions. For example, they could add a new organization costing rule for the relevant business unit and expenditure organization.
9. After updating the relevant application configuration, the project application administrator can rerun the report and check the Simulated Cost Processing section, to see if the error is cleared.
10. The project manager can then revisit their forecast (or budget or financial project plan, as applicable) to clear the error and successfully submit it for approval.

39 Application Composer

Configuring Project Financial Management Applications

A project application administrator can create new custom objects and add attributes to the custom objects to meet specific business needs using Application Composer. In Project Financial Management applications, you can configure the Project object using an active sandbox.

For example, add fields in a child object created under the Project object to document project close notes, retrospective, and lessons learned. In particular, you can use the Long Text field type to capture detailed information up to 32,000 characters. The child objects appear as additional tabs on the Manage Financial Project Settings page.

After you create a custom object, you can:

- Use the REST service to create, view, and update the custom object.
- Create a new subject area to report on the custom object.

Since your organization can view the changes you make at runtime immediately, you must first create or select a sandbox and isolate your changes. A sandbox provides an independent development environment so that you can fully test your changes before publishing the sandbox and making the changes available to your organization.

Navigate to Application Composer from **Configuration** and select **ERP and SCM Cloud** in the Application field. You can view the objects for Project Financial Management applications under Standard Objects menu.

Create a Child Object for Financial Projects

Create a child object to track data for a standard object that's not already delivered with your cloud service. For financial projects, you can create a child object that will appear as a new tab on the Manage Financial Project Settings page.

Create fields within the new tab to capture your project information.

Here are the steps that describes how to create a child object.

1. Enter in an active sandbox.
2. Navigate to **Tools** > **Configuration** > **Application Composer**.
3. From the Application drop down, select **ERP and SCM Cloud**.
4. Expand Standard Objects menu and click **Project**.
5. On the Project Overview page, in the Child Objects section, click **Create Child Object**.
6. In the Create Child Object window, enter the mandatory object details. After you enter value for **Display Label**, other values are automatically populated.
7. Click **OK**. Once your child object is created, you can see it under the Project standard object.
8. Expand the child object and click the **Fields** link. Create the fields that you want to add to the child object. The fields you create appear on the Fields page.
9. Expand the child object and click the **Pages** link.
10. On the Child Object: Pages page, click **Create Default Pages**. Application creates the Creation Page and Details Page layouts for you.

11. In the Creation Page Layouts section, click the Duplicate Layout icon.
12. In the Duplicate Layout window, enter the layout name and click **Save and Close**. Similarly, create a duplicate layout for Details Page Layouts.
13. In the Creation Page Layouts section, click the duplicate layout link you just created.
14. On the Duplicate Creation Layout page, click the Edit icon next to the child object name.
15. In the Configure Detail Form section, select the fields you created from the Available Fields box and move to the Selected Fields box.
16. Click **Save and Close**.
17. Click **Done**. Similarly, in the Details Page Layouts section, add the fields you created to the Duplicate Details Layout page.

Follow the steps to add the child object to the standard Project object.

1. Click the **Pages** link under the Project standard object.
2. In the Details Page Layouts section, create a duplicate layout.
3. Click the duplicate layout link.
4. On the Duplicate Details Layout page, you can view all the predefined tabs on the Manage Financial Project Settings page. Click the Add icon at the bottom to create a new tab.
5. On the Duplicate Details Layout: Create Subtab page, select the **Child object** option and click **Next**.
6. In the Data Object drop down, select the child object you created.
7. In the Configure Summary table section, select the fields you created within the child object from the Available Fields box and move to the Selected Fields box.
8. Click **Save and Close**. You can now view the child object as a new tab on the Duplicate Details Layout page.
9. Click the Edit icon next to the child object name in the new tab.
10. On the Subtab page, in the Basic Information section, select the **Enable Separate Create Pages** and **Enable Separate Edit Pages** option.
11. Click **Save and Close**.
12. Click **Done**.

Navigate to the Project Financial Management work area. Create a new project or open an existing project. Open the Manage Financial Project Settings page for the project. You can view the custom child object as a new tab.

Related Topics

40 Page Composer

Extend the Manage Project Financial Settings Page with Parameters

Project application administrators can personalize components within the Manage Financial Project Settings page, using context specific parameters in Page Composer, to control certain project attributes based on business requirements.

For example:

- Hide page components, such as tabs or individual fields that are not relevant for a specific project type, business unit, or a legal entity.
- Improve data quality and reduce business process errors by making certain fields read-only, such as those that default from a project template.

Note: You can personalize context specific attributes only when you navigate to the Manage Financial Project Settings page in the context of a project.

Syntax in Expression Language (EL)

Use Expression Language (EL) to alter the behavior of the relevant page components in order to meet your business requirement.

```
#{pageFlowScope.mfpsParameters.<Parameter Code>}
```

For example, the following expression would return 'true' if the project type is enabled for billing:

```
#{pageFlowScope.mfpsParameters.ProjectTypeEnableBillingFlag == 'Y'}
```

Available Parameters

The following context specific parameters are available to use in Expression Language when customizing the Manage Financial Project Settings Page.

Parameter Code	Comments
ProjectTemplateFlag	Accepted values are Y or N.
ProjectStatusCode	
ProjectStatusName	Note that the Project Status Name is translatable.
ProjectSystemStatusCode	Accepted values are ACTIVE, CLOSED, DRAFT, PENDING_CLOSE, SUBMITTED.
ProjectBusinessUnitId	
ProjectBusinessUnit	Note that the Business Unit Name is translatable.

Parameter Code	Comments
ProjectTypeId	
ProjectTypeName	Note that the Project Type Name is translatable.
ProjectTypeSponsoredFlag	Indicates whether the project type is enabled for sponsored projects. Accepted values are Y or N.
ProjectTypeEnableBillingFlag	Indicates whether the project type is enabled for billing. Accepted values are Y or N.
ProjectTypeEnableCapitalizationFlag	Indicates whether the project type is enabled for capitalization. Accepted values are Y or N.
ProjectLegalEntityId	
ProjectLegalEntityIdentifier	
ProjectLegalEntityName	

Example

The Project Currency drop down on a project is defaulted from the project template, and the user can modify it until transactions are created. Consider a requirement where the project currency value must be read-only, regardless of whether project has incurred costs. However, users should still be able to change the project currency value in project templates.

To personalize the project currency field:

1. You must be in an active sandbox that has the Page Composer tool enabled.
2. Navigate to the Financial tab on the Manage Financial Project Settings page and click **Edit Pages** from the **Settings and Actions** menu.
3. Select the dialog box from the Structure pane and click **Edit**. A modal dialog box appears.
4. Change the Child Creation property to **immediate**. You should now see the dialog box components in the Structure pane.
5. Edit the Project Currency property. Use the Expression Builder to edit the EL for the Disabled property. Update the EL to:

   ```
   #{ProjCurrencyBean.checkTransactionPresent || pageFlowScope.mfpsParameters.ProjectTemplateFlag == 'N'}
   ```

   The expression will disable the Project Currency property if transactions are present or if the context is a project and not a project template. The double-pipe in the expression represents an OR logical operator. Refer to the Related Help section for topics that contain more information regarding syntax.
6. Apply the changes.
7. Set the Child Creation property of the dialog box back to **deferred**.
8. Test your changes before publishing the sandbox.
   - In context of the project, the Project Currency field becomes read-only.
   - In context of a project template, the Project Currency field is updatable.

Note: Changes made using Page Composer apply to the user interface (UI) only, and don't apply to integrated solutions such as those that leverage REST APIs.