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This implementation manual assumes that you are using installation notes provided with the media to perform the installation. It does not contain information regarding the installation steps necessary to transfer the Applications from the disbursement media to the computer system.

Once the installation has been completed, this manual may be used to step through the setup and implementation steps required to get Project Manufacturing functional.

This preface also explains how this implementation manual is organized and introduces other sources of information that can help you.
About This Manual

This manual contains overviews as well as task and reference information for implementing Oracle Project Manufacturing. This manual includes the following chapters:

- Chapter 1 contains an overview of the Oracle Project Manufacturing product and its integration with other Oracle applications.
- Chapter 2 describes the steps required to setup Oracle Project Manufacturing.
- Chapter 3 provides you with the list of entities within Oracle Applications that you can reference a project and/or task.
- Chapter 4 describes the key features related to project procurement.
- Chapter 5 explains the Project MRP features in Oracle Project Manufacturing. It also explains the Project MRP netting logic with examples for hard and soft pegged items.
- Chapter 6 discusses the four processes used to cost in Oracle Inventory and Work in Process transactions, to transfer such costs to Oracle Projects, and to import and correct the costed transactions in Oracle Projects.
- Chapter 7 explains the use of Oracle Project Manufacturing’s Task Auto–Assignment feature. Task Auto–Assignment gives you a flexible way to specify how to track material and resource costs by tasks within your project.
- Chapter 8 explains using Drop Shipment functionality in a Project Manufacturing environment.
- Chapter 9 explains how to process ATO/PTO orders in a Project Manufacturing environment.
- Chapter 10 explains quality collection in a Project Manufacturing environment.
- Chapter 11 explains how to use Supply Chain Planning for multi-org projects in a Project Manufacturing environment.
- Chapter 12 outlines the steps required to close accounting periods in a Project Manufacturing environment.
- Chapter 13 describes the use of Project Manufacturing without installing Oracle Projects.
Audience for This Guide

This implementation manual, combined with the user’s guides listed in the section Other Information Sources, should provide you with all the information needed to implement Oracle Project Manufacturing.

It also assumes you are familiar with Project Manufacturing. If you have never used Project Manufacturing, we suggest you attend one or more of the Project Manufacturing training classes available through World Wide Education. For more information about Project Manufacturing and Oracle training, see: Other Information Sources.

Do Not Use Database Tools to Modify Oracle Applications Data

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

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

Consequently, we STRONGLY RECOMMEND that you never use SQL*Plus or any other tool to modify Oracle Applications data unless otherwise instructed.

Other Information Sources

Here are some other ways you can increase your knowledge and understanding of Project Manufacturing.
Online Documentation

All Oracle Applications documentation is available online on CD–ROM, except for technical reference manuals. There are two online formats, HyperText Markup Language (HTML) and Adobe Acrobat (PDF).

All user’s guides are available in HTML, Acrobat, and paper. Technical reference manuals are available in paper only. Other documentation is available in Acrobat and paper.

The content of the documentation does not differ from format to format. There may be slight differences due to publication standards, but such differences do not affect content. For example, page numbers and screen shots are not included in HTML.

The HTML documentation is available from all Oracle Applications windows. Each window is programmed to start your web browser and open a specific, context–sensitive section. Once any section of the HTML documentation is open, you can navigate freely throughout all Oracle Applications documentation. The HTML documentation also ships with Oracle Information Navigator (if your national language supports this tool), which enables you to search for words and phrases throughout the documentation set.

Related User’s Guides

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

If you do not have the hardcopy versions of these manuals, you can read them online using the Applications Library icon or Help menu command.

Oracle Applications User’s Guide

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with this release of Project Manufacturing (and any other Oracle Applications products). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

You can access this user’s guide online by choosing “Getting Started with Oracle Applications” from any Oracle Applications help file.
Oracle Applications Demonstration User’s Guide

This guide documents the functional storyline and product flows for Global Computers, a fictional manufacturer of personal computers products and services. As well as including product overviews, the book contains detailed discussions and examples across each of the major product flows. Tables, illustrations, and charts summarize key flows and data elements.

Oracle Bills of Material User’s Guide

This guide describes how to create various bills of materials to maximize efficiency, improve quality and lower cost for the most sophisticated manufacturing environments. By detailing integrated product structures and processes, flexible product and process definition, and configuration management, this guide enables you to manage product details within and across multiple manufacturing sites.

Oracle Cost Management User’s Guide

This guide describes how to use Oracle Cost Management in either a standard costing or average costing organization. Cost Management can be used to cost inventory, receiving, order entry, and work in process transactions. It can also be used to collect transaction costs for transfer to Oracle Projects. Cost Management supports multiple cost elements, multiple subelements, and activity-based costing. It also provides comprehensive valuation and variance reporting.

Oracle Engineering User’s Guide

This guide enables your engineers to utilize the features of Oracle Engineering to quickly introduce and manage new designs into production. Specifically, this guide details how to quickly and accurately define the resources, materials and processes necessary to implement changes in product design.

Oracle Inventory User’s Guide

This guide describes how to define items and item information, perform receiving and inventory transactions, maintain cost control, plan items, perform cycle counting and physical inventories, and set up Oracle Inventory.
Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide

This guide describes how to anticipate and manage both supply and demand for your items. Using a variety of tools and techniques, you can create forecasts, load these forecasts into master production schedules, and plan your end-items and their component requirements. You can also execute the plan, releasing and rescheduling planning suggestions for discrete jobs and repetitive schedules.

Oracle Order Entry/Shipping User’s Guide

This guide describes how to enter sales orders and returns, copy existing sales orders, schedule orders, release orders, plan departures and deliveries, confirm shipments, create price lists and discounts for orders, and create reports.

Oracle Project Manufacturing User’s Guide

This guide describes the unique set of features Oracle Project Manufacturing provides for a project-based manufacturing environment. Oracle Project Manufacturing can be tightly integrated with Oracle Projects; however, in addition to Oracle Projects functionality, Oracle Project Manufacturing provides a comprehensive set of new features to support project sales management, project manufacturing costing, project manufacturing planning, project manufacturing execution and project quality management.

Oracle Purchasing User’s Guide

This guide describes how to create and approve purchasing documents, including requisitions, different types of purchase orders, quotations, RFQs, and receipts. This guide also describes how to manage your supply base through agreements, sourcing rules and approved supplier lists. In addition, this guide explains how you can automatically create purchasing documents based on business rules through integration with Oracle Workflow technology, which automates many of the key procurement processes.
Oracle Quality User’s Guide
This guide describes how Oracle Quality can be used to meet your quality data collection and analysis needs. This guide also explains how Oracle Quality interfaces with other Oracle Manufacturing applications to provide a closed loop quality control system.

Oracle Work in Process User’s Guide
This guide describes how Oracle Work in Process provides a complete production management system. Specifically this guide describes how discrete, repetitive, assemble-to-order, project, flow, and mixed manufacturing environments are supported.

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

Oracle Payables User’s Guide
This guide describes how accounts payable transactions are created and entered in Oracle Payables. This guide also contains detailed setup information for Oracle Payables.

Oracle Receivables User’s Guide
Use this manual to learn how to implement flexible address formats for different countries. You can use flexible address formats in the suppliers, banks, invoices, and payments windows.

Oracle HRMS User’s Guide
This manual explains how to enter your employees. It also explains how to set up organizations and site locations. Even if you do not install Oracle HRMS, you can set up your employees, site locations, and organization using Oracle HRMS forms.
Oracle Projects User’s Guide

This user’s guide explains how to set up projects for use in project manufacturing and project accounting.

Reference Manuals

Oracle Technical Reference Manuals

Each technical reference manual contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non–Oracle applications, and write custom reports for Oracle Applications products.

You can order a technical reference manual for any Oracle Applications product you have licensed.

Oracle Manufacturing, Distribution, Sales and Service Open Interfaces Manual

This manual contains up–to–date information about integrating with other Oracle Manufacturing applications and with your other systems. This documentation includes open interfaces found in Oracle Manufacturing.

Oracle Applications Message Reference Manual

This manual describes all Oracle Applications messages. This manual is available in HTML format on the documentation CD–ROM for Release 11.

Oracle Self–Service Web Applications Implementation Manual

This manual describes the setup steps for Oracle Self–Service Web Applications and the Web Applications dictionary.

Installation and System Administration

Oracle Alert User’s Guide

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.
Multiple Reporting Currencies in Oracle Applications

If you use the Multiple Reporting Currencies feature to record transactions in more than one currency, use this manual before implementing Project Manufacturing. This manual details additional steps and setup considerations for implementing Project Manufacturing with this feature.

Multiple Organizations in Oracle Applications

If you use the Oracle Applications Multiple Organization Support feature to use multiple sets of books for one Project Manufacturing installation, this guide describes all you need to know about setting up and using Project Manufacturing with this feature.

Oracle Applications Implementation Wizard User’s Guide

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

Oracle Applications Developer’s Guide

This guide contains the coding standards followed by the Oracle Applications development staff. It describes the Oracle Application Object Library components needed to implement the Oracle Applications user interface described in the Oracle Applications User Interface Standards. It also provides information to help you build your custom Developer/2000 forms so that they integrate with Oracle Applications.

Oracle Applications Flexfields Guide

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

Oracle Applications Installation Manual for Windows Clients

This guide provides information you need to successfully install Oracle Financials, Oracle Public Sector Financials, Oracle Manufacturing, or Oracle Human Resources in your specific hardware and operating system software environment.
Oracle Applications Product Update Notes
If you are upgrading your Oracle Applications, refer to the product update notes appropriate to your update and product(s) to see summaries of new features as well as changes to database objects, profile options and seed data added for each new release.

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

Oracle Applications System Administrator’s Guide
This manual provides planning and reference information for the Project Manufacturing System Administrator.

Other Sources

Training
We offer a complete set of formal training courses to help you and your staff master Oracle Project Manufacturing and reach full productivity quickly. We organize these courses into functional learning paths, so you take only those courses appropriate to your job or area of responsibility.

You have a choice of educational environments. You can attend courses offered by Oracle Education Services at any one of our many Education Centers, or you can arrange for our trainers to teach at your facility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

Support
From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Project Manufacturing working for you. This team includes your Technical Representative, Account Manager, and Oracle’s large staff of
consultants and support specialists with expertise in your business area, managing an Oracle8 server, and your hardware and software environment.

About Oracle

Oracle Corporation develops and markets an integrated line of software products for database management, applications development, decision support, and office automation, as well as Oracle Applications, an integrated suite of more than 45 software modules for financial management, supply chain management, manufacturing, project systems, human resources and sales and service management.

Oracle products are available for mainframes, minicomputers, personal computers, network computers and personal digital assistants, allowing organizations to integrate different computers, different operating systems, different networks, and even different database management systems, into a single, unified computing and information resource.

Oracle is the world’s leading supplier of software for information management, and the world’s second largest software company. Oracle offers its database, tools, and applications products, along with related consulting, education, and support services, in over 140 countries around the world.
Thank You

Thank you for using Oracle Project Manufacturing and this implementation guide.

We value your comments and feedback. At the end of this guide is a Reader’s Comment Form you can use to explain what you like or dislike about Oracle Project Manufacturing or this implementation manual. Mail your comments to the following address or call us directly at (650) 506–7000.

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Or, send electronic mail to appsdoc@us.oracle.com.
Overview

This Oracle Project Manufacturing Implementation Manual contains up-to-date information about the current Oracle Project Manufacturing product you have installed and guides you step-by-step through your setup of Oracle Project Manufacturing.

This manual is organized for fast, easy access to information on each of the following topics:

- Project Manufacturing setup
- Project References
- Transferring Manufacturing Costs to Oracle Projects
- Task Auto Assignment
- Using Project Manufacturing without Oracle Projects

This chapter contains an overview of the Oracle Project Manufacturing product and its integration with other Oracle applications.
Overview of Oracle Project Manufacturing

Oracle Project Manufacturing Product

Release 11 incorporates a new set of features to better support companies in the Engineer–To–Order, Make–To–Order, and Aerospace and Defense industry. Project–, contract–, or Seiban–based planning, tracking, and costing is most characteristic for this industry.

Release 11 is the first production release for Oracle Project Manufacturing and includes:

- Project and task references on supply and demand entities
- Project group netting
- Project full pegging (hard, soft)
- Project manufacturing costing
- Project sales management
- Project procurement
- Project shop floor management
- Project inventory tracking
- Supply chain projects
- Project drop shipments
- Project quality collection and analysis
- Project support for ATO/PTO environments
Oracle Project Manufacturing Integration

Oracle Project Manufacturing is fully integrated with the Oracle Projects, Oracle Financials, Oracle Human Resources, Oracle Sales Force Automation, and Oracle Manufacturing and Distribution product suites.

It should be noted that for this release, this manual addresses only the setup and features of Oracle Project Manufacturing.

**Note:** For further information, the user should consult other Oracle product documentation.
Project Manufacturing Flow

The diagram below describes a generic high level Project Manufacturing flow that is typical for the Engineer-To-Order and Aerospace and Defense industry.

A complete project cycle requires the steps shown in the diagram. A project cycle begins with a response to a customer request for quotation by Sales and Engineering. After the quotation is accepted by the customer and the budgeting and reporting requirements are defined, the project Work Breakdown Structure (WBS) is defined. The WBS represents all project activities (tasks, sub-tasks, work packages, activities, milestones).

After definition, which can be an iterative process, the project is scheduled using advanced project scheduling techniques. The manufacturing system tracks project materials and creates planned orders for each project. These planned orders are executed as shop floor orders (WIP Jobs) or purchase orders.

Standard material, project specific material, manufacturing labor, non-manufacturing labor, and overhead/burden are tracked at actual.
Based on actuals you can perform earned value analysis, progress billing and revenue recognition. During the execution phase quality data are collected and analyzed by project.

After the project has been shipped and installed at the customer site, final billing, reconciliation, and close-out are executed.

**Project Manufacturing Features**

Oracle Project Manufacturing provides a unique set of features for a project–based manufacturing environment. Oracle Project Manufacturing can be tightly integrated with Oracle Projects.

In this scenario Oracle Projects provides the following main features:

- Project Work Breakdown Structure definition
- Project Management System integration
- Project budgeting
- Project cost tracking and control
- Project billing

In addition to the Oracle Projects functionality, Oracle Project Manufacturing provides a comprehensive set of new features to support:

- Project sales management
- Project manufacturing costing
- Project manufacturing planning
- Project manufacturing execution
- Project quality management

We will illustrate the Oracle Project Manufacturing features using the diagram below. This diagram shows the dependencies between the various products being used to provide a full Project Manufacturing solution.
**Project Definition**

In order to define a project structure (WBS) you can use two basic methods:

1. Define the project structure in a third party Project Management System and transfer the structure (online) into Oracle Projects. You can use basic setup data from Oracle Projects (for example, project resources, project calendars, and project templates) directly in your 3rd party Project Management System. You need the Oracle Projects Connect or Oracle Projects Activity Management Gateway product to accomplish this.

2. Define the project structure directly in Oracle Projects.

Project or Contract specific documentation can be entered into the system using project attachments.

Before releasing the project to collect manufacturing costs, you need to define the project related manufacturing parameters for costing and planning purposes. For example, decide to allow netting of materials within a project group across multiple projects, and decide to track manufacturing costs separately by project or for a group of projects.

**Project Budgeting**

In order to track costs against budgets you need to define your budgeting in Oracle Projects. You can define budgets directly in Oracle...
Projects or import budgets from external systems. Oracle Projects’
main budgeting features are:

- **Multiple Budget Versions:** You can use Oracle Projects to create
  multiple budget versions that include all of the costs for your
  project, such as engineering costs, item costs, manufacturing
  costs, and overheads. Multiple budget versions allow you to
  revise your estimate to complete many times during a project.
  Each project can compare the current or baseline budget with
  earlier versions for analytical reporting.

- **Unlimited Budget Types:** You can create different kind of budgets.
  You can create cost budgets, revenue budgets, forecasted
  revenue budget, approved cost budget, and more.

- **Time Phased Budgeting:** You can create user defined time periods
  or use existing calendars in Oracle General Ledger or Oracle
  Projects to establish multiple budgeting periods.

- **Budget Extensions:** You can use budget extensions to
  accommodate your company’s budgeting needs.

- **Budget Baselining and Approval:** You can baseline a budget and
  use a workflow supported approval process for approving your
  budget.

Budgeting related documents (e.g. spreadsheets) can be included using
budget attachments.

After your project structure and budgeting has been defined in Oracle
Projects you need to define the Manufacturing parameters for your
project. These include:

- WIP Accounting Class Defaulting
- Cost Group information
- Planning Group information
- Task Auto–Assignment parameters (optional)
- Project Manufacturing costing information (link Projects
  expenditure types to Manufacturing cost elements and cost
  sub–elements; link Manufacturing departments to Projects
  expenditure organizations)

**Project Sales Management**

Project Sales Management activities include recording customer
quotation documents, project specifications, quotation and sales order
information, and fulfillment.
Oracle Project Manufacturing supports:

- **Project Quotations and Sales Orders**: Order Entry allows you to specify quotation and sales order cycles. A quotation can be easily copied to a sales order. Quotation and sales order lines can be linked to projects and project tasks.

- **Project Assemble–To–Order (ATO) and Pick–To–Order (PTO)**: Oracle Project Manufacturing allows you to use the Oracle Product Configurator with Oracle Order Entry with propagation of project and task on the configured model, options, and included items. For ATO, the Final Assembly Schedule process will create a WIP Job with the model’s project and task.

- **Project Drop Shipments**: You can specify a project and task on a sales order line and automatically create a project purchase requisition using drop shipment functionality. Drop shipped materials are directly shipped from supplier to customer.

- **Project Fulfillment**: Order Entry supports delivery–based shipping with user definable picking rules for order fulfillment. After manufacturing is complete, finished goods are automatically picked from the project inventory upon pick release.

- **Project Order Import**: If you use external systems to capture order information you can use Order Import to import external sales orders or quotations, including project and task references.

**Project Manufacturing Planning**

In order to drive Manufacturing project planning you will need to enter demand in the system. The system supports three ways of entering demand:

1. **Forecasts**: You can enter a forecast and link a forecast entry to a project and task

2. **Sales Orders**: You can enter a sales order and link a sales order line to a project and task. This can also be accomplished using Order Import functionality.

3. **Master Demand/Master Production Schedule**: You can enter a master schedule and link a master schedule entry to a project and task. Forecasts and Sales Orders can be sources for a master schedule.

After demand is created in the system you can start your planning cycle. The planning cycle can be executed for one organization or across an entire supply chain.
To successfully plan material for project execution, you must be able to separate all sources of supply and demand by project, identify components as shared or project specific, track existing inventories by project, and provide visibility to all supply and demand associated with a project. Oracle Project Manufacturing provides:

- **Hard Pegging (Project MRP):** You can plan material requirements while respecting hard pegs on all supply orders and generate planned orders with project/task references. Each item can be hard or soft pegged, thereby allowing various pegging methods within a bill of material.

- **Soft Pegging (Full Pegging):** You can plan materials and soft peg them to the demand.

- **Project Group Netting:** You can net within a planning group (multiple projects) and you can soft peg items to the projects within the project group.

- **Graphical Pegging to Project:** You can use the object navigator to graphically view your pegging information, like project, task, and sales order.

- **Project Planner Workbench:** You can use the Planner Workbench to view project exceptions, a project horizontal plan, supply and demand per project, simulate new or existing project demand, and release planned orders by project.

- **Forecast by Project/Task:** You can link a project WBS to a forecast entry and run the forecast demand through the planning system. This enables you to plan long term capacity and procurement for your projects.

- **MDS/MPS by Project/Task:** You can load the MDS/MPS from a project forecast with project sales orders or manually link a project WBS to a schedule entry. You can have project and common demand in one schedule.

- **Project Exception Messages:** The planning system will generate project related exception messages including: Item Allocated Across Projects, Project Excess, and Project Shortage.

- **Single Planning Run for All Projects:** You can run a single plan for multiple projects at once, thereby eliminating the need to run Planning project by project. Oracle Application’s fast memory-based planner allows you to execute planning much faster than traditional planning systems.

- **Project Planning Simulation:** You can enter new entries for new project/tasks or change existing due dates directly in the Planner
Workbench. Online net-change simulation lets you view the results of your changes in minutes. This allows you to easily respond to scenarios of fluctuating and unexpected demand, or to Project Management System rescheduling results.

- **Multi-Organization/Multi-Plant and Supply Chain Projects:** Using Oracle Project Manufacturing you can manufacture products for the same project in multiple plants while consolidating all costs in Oracle Projects. You can use Oracle Supply Chain Planning to plan projects across a supply chain with appropriate propagation of project and tasks on internal orders and demand and supply entities.

- **Single Planning Run for All Projects:** The memory-based planning system allows you to execute a fast, single planning run for all projects, instead of executing planning run for each individual project.

### Project Manufacturing Execution

The result of the planning cycle will be planned orders that are fed into the execution system:

- Internal orders driven by inter-company supply
- WIP Jobs for make items (Project Work in Process)
- Purchase Requisitions or Blanket Releases for buy items (Project Procurement)

The execution system addresses the inventory, shop floor, and procurement activities. During execution project manufacturing costs are collected.

### Project Work in Process

Oracle Project Manufacturing supports following features to support Project Work in Process:

- **Project WIP Jobs:** You can create WIP Jobs (work orders) with project/task references. Both standard and non-standard WIP Jobs are supported. Project WIP Jobs can automatically be created and released from the Planner Workbench.

- **Project Outside Processing and Subcontracting:** You can use existing outside processing functionality to support Project Outside Processing and Subcontracting. The project/task on the work order will be transferred upon generating the outside processed purchase requisition.
• **Project Repair Orders:** You can create non-standard discrete jobs for your project repair/rework activities. This gives you the ability to track repair/rework separately from the normal work orders on the shop floor. By placing a project reference on these work orders, you can track and cost these maintenance activities for your project.

• **Project Work Order–less Completion:** You can complete assemblies for a project using the Work Order–less Completions without having to create a job. Assembly Pull, Operation Pull, and Push components are automatically backflushed when you complete assemblies through Work Order–less Completions.

Oracle Project Manufacturing constructs the component supply project locator for all hard pegged items and completions project locator for the assembly so you can quickly perform a Work Order–less Completion with minimum data entry.

**Project Procurement**

Oracle Project Manufacturing supports the following features to support Project Procurement:

• **Project Requisitions:** You can create requisitions with project/task references. Project requisitions can be defined for inventory and expense destination types. Project requisitions can automatically be implemented from the Planner Workbench.

• **Project Purchase Orders:** You can create purchase orders with project/task references. Project purchase orders can be defined for inventory and expense destination types.

• **Project Blanket Releases:** You can create purchase blanket releases with project/task references. Project blanket releases can be automatically implemented from the Planner Workbench.

• **Project RFQs:** You can create purchase Request For Quotations (RFQ) manually or auto-create a RFQ from a requisition. You can request multiple quotes within one vendor RFQ.

• **Project Supplier Quotes:** You can create purchase vendor quotes manually or create a quote from a RFQ.

**Project Inventory**

Tracking of inventory by project and dealing with transfers from one project to another, or from common inventory to project inventory, is essential for a project–based environment. Oracle Project Manufacturing supports:
• **Project Inventory:** You can segregate inventory by project using project locators. You can reference a project/task in the locator flexfield and can dynamically create project locators upon receipt. The issue, back-flush, and completion locators are automatically defaulted and validated for project WIP Jobs and their associated material.

• **Project Material Transactions:** You can use the existing material transactions such as Miscellaneous Issue/Receipt, Subinventory Transfer, PO Receipt, WIP Issue, WIP Return, and WIP Completion to handle all your project material transaction needs.

• **Project to Project Transfers:** You can transfer material from one project to another with appropriate transfer of inventory value.

• **Common-to-Project and Project-to-Common Transfers:** You can transfer material from common inventory to project inventory and vice versa, with appropriate transfer of inventory value.

---

**Project Manufacturing Costing**

During the execution phase project related costs can be collected in four ways:

1. Import of costs from external systems directly into Oracle Projects Transaction Import

2. Entry of direct labor and expenses directly into Oracle Projects, optionally using Personal Time & Expense disconnected entry.

3. Collection of manufacturing labor, material, and manufacturing overhead in Oracle Cost Management as a result of Work in Process and Inventory transactions.

4. Import of manufacturing costs from external systems using Oracle Manufacturing Transaction Import.

For expense purchases the invoice costs will flow to a project through Oracle Payables; for inventory purchases the purchase costs will flow to a project through Oracle Cost Management upon receiving into destination.

Oracle Project Manufacturing supports project costing as follows:

• **Cost Groups:** You can create cost groups and link cost groups to projects to identify and separate costs by item by project. Costs are tracked using perpetual weighted average costing. You can use one cost group for multiple projects if you want to establish a weighted average cost by item for a group of projects.
• **Linking Project Expenditure Organizations to Manufacturing Departments:** You can link project expenditure organizations to manufacturing departments to allow departmental cost visibility and analysis for a project.

• **Linking Project Cost Elements To Manufacturing Cost Elements:** You can create user defined project cost elements (Oracle Projects expenditure types), and manufacturing cost sub–elements. Project cost elements can be mapped into user definable categories and you are able to specify which project cost elements you will use on an individual project. Oracle Project Manufacturing allows you to link manufacturing cost elements (material, material overhead, resource, overhead, outside processing) and cost sub–elements to project cost elements. This allows you to track all costs within a project, whether it’s source is purchasing, project direct labor and expenses, shop floor activity or external systems.

**Cost Elements; Cost Subelements; Expenditure Types**

- **Material**
  - Precious Metals
  - Plastics
- **Material Overhead**
  - Warehouse Handling
  - Packaging
- **Resource**
  - Engineering
  - Production
- **Resource Overhead**
  - Factory
  - Maintenance
- **Outside Processing**
  - Painting
  - Refurbishing
  - Metals
  - Non–metals

• **Manufacturing Cost Collector:** Oracle Project Manufacturing’s Cost Collector allows you to transfer manufacturing costs to Oracle Projects. The engine intelligently derives all required information like expenditure organization, expenditure date, and project cost element, automatically. All manufacturing costs are transferred to Oracle Projects Transaction Import for project cost distribution.
• **Project Inventory Valuation:** You can use the full functionality of Weighted Average Actual Costing in a Project Manufacturing environment. Project inventory material costs will be maintained by project on a perpetual weighted average basis. Common inventory material costs will be maintained by item. All costs are maintained per organization on elemental detail.

Oracle Projects supports costing with the following additional features to keep track of project progress, actual versus planned budget, control of project purchase commitments, and reporting:

• **Project Status Inquiry (PSI):** You have the power to discover all the facts about your project in a comprehensive workbench. You drill up and down on your project WBS and obtain project summary information, and drill down to detailed transaction information. You can also obtain project commitments, revenue, invoices, unbilled costs, backlog, and receivable information. The PSI Extension allows you to pull project information from anywhere. You can easily export data in online queries to your desktop spreadsheet and reporting tools, to easily meet the requirements of your company.

• **Project Comparison:** Oracle Projects and most Project Management Systems allow you to compare multiple project versions. You can use Oracle Projects to compare baseline and current project budgets.

• **Project Status Reporting:** Both Oracle Projects and a third party Project Management System generate a wealth of project status reports to analyze your project financial status.

• **Project Cost Elements:** You can create user defined project cost elements (expenditure types) and group these elements into categories.

**Project Billing**

Oracle Projects is the repository for all project costs. These costs can be used for Earned Value Analysis, which is done in the third party Project Management System. The result of the Earned Value Analysis can be fed into Oracle Projects to trigger project billing.

Within the Project Manufacturing solution there are three ways to accomplish billing:

1. Drive billing from Oracle Order Entry using order cycles that interface to Oracle Receivables
2. Drive billing from Oracle Project Billing using billing schedules that interface to Oracle Receivables

3. Use a combination of 1 and 2 (for example: drive project billing from Oracle Project Billing and spare part billing from Oracle Order Entry). If you use Oracle Order Entry to ship your project-related assemblies, but not to bill for them through Order Entry, then you need to make sure that you use order cycles that don’t interface to Oracle Receivables to avoid double billing.

The diagram lists some additional boxes and lines that have not been discussed. If you are implementing an Oracle Projects functionality called Capital Projects you will generate asset lines for Oracle Assets. All journals from all subsystems will be posted to Oracle General Ledger. Oracle General Ledger is also the place holder for the chart of accounts used throughout the entire system.

**Project Quality Management**

You can optionally implement Oracle Quality for managing project quality. Oracle Quality in combination with Oracle Project Manufacturing supports:

- **Project Quality Collection Elements**: You can use project and task as quality collection elements.

- **Specify Project on Quality Collection Plan**: You can specify a project on a quality collection plan.

- **Project Quality Data Collection**: You can collect project and task related quality information using manual entry or Oracle Quality’s Data Collection Open Interface.

- **Project Quality Analysis**: You can use project and task as selection criteria for quality analysis.
CHAPTER 2

Setting Up

Once you have installed Oracle Project Manufacturing and other Oracle Applications products, the next step is to setup Oracle Project Manufacturing and other Oracle Applications products to meet your specific business needs. This chapter discusses the steps required to setup Project Manufacturing.

This chapter does not contain every setup step for all the Oracle Applications. You should refer to the User’s Guide of each individual product for detailed descriptions of the setup step.
Overview of Setting Up

Oracle Project Manufacturing setup includes various setup steps within Oracle Applications products. The following table provides you with a list of these steps. The manual is designed to give you an explanation of the project aspect of these steps. You should refer to the User’s Guide of each product for further detail on these steps.

<table>
<thead>
<tr>
<th>Step #</th>
<th>Application</th>
<th>Step</th>
<th>Form Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Human Resources/Oracle Projects</td>
<td>Setup Organization</td>
<td>Organization</td>
</tr>
<tr>
<td>2</td>
<td>Human Resources/Oracle Projects</td>
<td>Setup Organization Hierarchy</td>
<td>Organization Hierarchy</td>
</tr>
<tr>
<td>3</td>
<td>Inventory</td>
<td>Setup Inventory Organization Parameters</td>
<td>Organization Parameters</td>
</tr>
<tr>
<td>4</td>
<td>Inventory</td>
<td>Setup Stock Locators</td>
<td>Stock Locators</td>
</tr>
<tr>
<td>5</td>
<td>Bill of Materials</td>
<td>Setup Department in Manufacturing</td>
<td>Departments</td>
</tr>
<tr>
<td>6</td>
<td>Projects</td>
<td>Setup Project Transaction Source</td>
<td>Transaction Sources</td>
</tr>
<tr>
<td>7</td>
<td>Projects</td>
<td>Setup Expenditure Types and Type Classes</td>
<td>Expenditure Types</td>
</tr>
<tr>
<td>8</td>
<td>Projects</td>
<td>Setup Expenditure Types for Cost Elements</td>
<td>Expenditure Types</td>
</tr>
<tr>
<td>9</td>
<td>Cost Management</td>
<td>Setup Expenditure Types for Cost Sub–elements</td>
<td>Material Sub–elements/Resources/Overheads</td>
</tr>
<tr>
<td>10</td>
<td>Project Manufacturing</td>
<td>Setup Project Parameters</td>
<td>Project Parameters</td>
</tr>
</tbody>
</table>
Setup Organization

PJM: Setup> Manufacturing> Organizations
INV: Setup> Organizations> Organizations
PA: Setup> Human Resources> Organizations> Define

Organization Classification

An organization should have the following classifications when it is used in a project manufacturing environment.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Purpose</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project/Task Owning Organization</td>
<td>Organizations that can own projects and/or tasks in the operation unit.</td>
<td>Oracle Projects</td>
</tr>
<tr>
<td>Project Expenditure/Event Organization</td>
<td>Organizations that can own project events (labor and non–labor), can incur expenditures for projects in the processing operation unit, can own resources and/or resource budgets, or have their own billing schedule.</td>
<td>Oracle Projects</td>
</tr>
<tr>
<td>Project Invoice Collection Organization</td>
<td>Organizations that processes invoices.</td>
<td>Oracle Projects (if Project Billing will be used)</td>
</tr>
<tr>
<td>Inventory Organization</td>
<td>Allows inventory to be assigned to an organization</td>
<td>Oracle Inventory</td>
</tr>
<tr>
<td>MRP Organization</td>
<td>Allows an organization to be included in planning.</td>
<td>Oracle Planning/MRP</td>
</tr>
<tr>
<td>WIP Organization</td>
<td>Allows an organization to transact work in process.</td>
<td>Oracle WIP</td>
</tr>
<tr>
<td>ECO Department</td>
<td>Allows access to ECOs when restricted access is enabled.</td>
<td>Oracle Engineering</td>
</tr>
</tbody>
</table>

See Also

Organizations in Oracle Projects, *Oracle Projects User’s Guide*

Setup Organization, *Oracle Inventory User’s Guide*
Setup Organization Hierarchy

PJM: Setup>Manufacturing>Organization Hierarchy
PA: Setup> Human Resources> Organizations> Hierarchies

Organization Hierarchy

Organization Hierarchy Concept
In Oracle HRMS, organization hierarchies show reporting lines and other hierarchical relationships among the organizations in your enterprise. For example, you set up a primary reporting hierarchy reflecting the main reporting lines in your enterprise, as established in the organization chart of your enterprise.

Organization Hierarchy in Oracle Projects
An organization hierarchy illustrates the relationships between your organizations. When you define a hierarchy, you tell Oracle Projects which organizations are subordinate to which other organizations. The topmost organization of an organization hierarchy is generally the business group.

You can create as many organization hierarchies as you need for different reporting and processing needs, and you can create multiple versions of an organization hierarchy. Oracle Projects uses the hierarchy version to determine which organizations are used for reporting and processing.

Note: Please read Organizations in Oracle Projects topical essay in Oracle Projects User’s Guide for details on how to use organizations and organization hierarchy in Oracle Projects.

Inventory Organization in the Hierarchy
One or more organizations in your organization hierarchy may be your inventory organizations. They may be the project owning organization and can incur project expenditures. For such organizations, you need to:

- Make sure that they exist in the Project/Task Owning Organization Hierarchy branch and have Project/Task Owning
Organization Classification enabled if it is to own projects and/or tasks in the operating unit.

- Make sure that they exist in the Expenditure/Event Organization Hierarchy branch and have Project/Task Owning Organization Classification enabled if it can incur expenditures for projects in the processing operating unit. In Project Manufacturing, this enables the Inventory Organization to own all the inventory costs.

- Classify the organization as Inventory Organization.

- Optionally, classify the organization as MRP Organization, WIP Organization and ECO Department.

For example, the following organization hierarchy has three manufacturing and distribution organizations: Mfg East, Distribution Central, Mfg West. Mfg East and Mfg West are manufacturing facilities where planning, purchasing, stocking and manufacturing goods are taking place. Distribution Central is a warehouse where only planning, purchasing and stocking goods are taking place. All these organizations can own projects as well as incur project expenditures.

The following table shows what classifications should be assigned to these organizations:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mfg East</td>
<td>Project/Task Owning Organization, Project Expenditure/Event Organization,</td>
</tr>
<tr>
<td></td>
<td>Inventory Organization, MRP Organization, WIP Organization, ECO Department</td>
</tr>
<tr>
<td>Distribution Central</td>
<td>Project/Task Owning Organization, Project Expenditure/Event Organization,</td>
</tr>
<tr>
<td></td>
<td>Inventory Organization, MRP Organization</td>
</tr>
<tr>
<td>Mfg West</td>
<td>Project/Task Owning Organization, Project Expenditure/Event Organization,</td>
</tr>
<tr>
<td></td>
<td>Inventory Organization, MRP Organization, WIP Organization, ECO Department</td>
</tr>
</tbody>
</table>
Setup Inventory Organization Parameters

PJM: Setup> Manufacturing> Organization Parameters
INV: Setup> Organization> Organization Parameters

Project Information Region

When you install Oracle Project Manufacturing, you will be able to navigate to the Project Information region of the Inventory Organization Parameter form.

The following table explains the fields on this region:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Reference Enabled</td>
<td>Checked</td>
<td>Project reference will be enabled on demand and supply entities.</td>
</tr>
<tr>
<td></td>
<td>Unchecked</td>
<td>You will not be able to enter project and task data</td>
</tr>
<tr>
<td>Project Cost Collection Enabled</td>
<td>Checked</td>
<td>Project manufacturing Inventory and WIP costs will be transferred to Oracle Projects. You can only check this field if Project Reference Enabled is checked.</td>
</tr>
<tr>
<td></td>
<td>Unchecked</td>
<td>Project manufacturing Inventory and WIP costs cannot be transferred to Oracle Projects</td>
</tr>
<tr>
<td>Project Control Level</td>
<td>Project</td>
<td>You can reference a project number on demand and supply entities. Task number is optional.</td>
</tr>
<tr>
<td></td>
<td>Task</td>
<td>You can reference a project number on demand and supply entities. If a project number is entered, a task number must also be entered.</td>
</tr>
</tbody>
</table>
Costing Information

When Project Cost Collection Enabled is checked, you can only choose Average as the costing method for the organization. Otherwise, you can use either Average or Standard costing methods.
Setup Stock Locators

PJM: Setup> Manufacturing> Stock Locators
INV: Setup> Organizations> Stock Locators

Locator Flexfield

Oracle Project Manufacturing reserves segment19 and segment20 of the Stock Locator key flexfield to store the project and task numbers. Users should not attempt to modify these two segments.

If you are installing Oracle Project Manufacturing the first time, when you create the first inventory organization and check the Project Reference Enabled checkbox, the system automatically enables segment19 and segment20 of the Stock Locator key flexfield. You can then enable additional segments (e.g. segment1, segment2) to reflect your physical stock location layout.

If you are installing Oracle Project Manufacturing in an existing Oracle Applications installation and are currently using segment19 and segment20 of the Stock Locator key flexfield, you need to change your current flexfield schema and use other segments instead. The system does not support automatic conversion.

Definition

**Project Locator**
A Project Locator is a locator with a project or project and task reference. A Project Locator is a logical partition of a physical location.

Project Inventory needs to be stocked in a Project Locator and needs to be transacted in and out of a Project Locator. Since Locators can be dynamically created, it is not necessary to redefine Project Locators.

**Common Locator**
A Common Locator is a locator without a project or project and task reference. A Common Locator is a real, physical location.

**Note:** Although a Project Locator is a logical partition, the system still regards it as a physical locator for physical and cycle counting.
Example

Project Locators differ from Common Locators by the existence of values in the Project and Task segments in the flexfield definition of the Locator. If the structure of the physical location is Row/Rack/Bin, the structure of the Locator flexfield would be Row/Rack/Bin/Project/Task. For example, the concatenated value for a common item in Row 1, Rack 4, Bin 2 would be 1/4/2/ while the concatenated value for a project item in Row 1, Rack 4, Bin 2, Project C4501, Task 2.1 would be 1/4/2/C4501/2.1.

Use of Locator

Project Locator is a mechanism to track inventory by project. If an inventory item needs to be identified by project, you need to turn on Locator Control for the item.

Since locators can be dynamically created (Locator Control = ‘Dynamic Entry Allowed’ at item level), you do not need to predefine all Project Locators. Oracle Project Manufacturing provides defaulting and validation logic in order to keep the use of project locators transparent to the user.

The following paragraphs describe the defaulting and validation logic for locators within various products.
Common Validation

The system validates the project and task segments of a locator based on the value of the Project Control Level parameter you setup in Organization Parameter. The following table describes the validation logic:

<table>
<thead>
<tr>
<th>Project Control Level</th>
<th>Project Segment</th>
<th>Task Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null</td>
<td>Cannot enter any value.</td>
<td>Cannot enter any value.</td>
</tr>
<tr>
<td>Project</td>
<td>Optional.</td>
<td>If Project is entered, Task is optional.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If Project is not entered, Task cannot be entered.</td>
</tr>
<tr>
<td>Task</td>
<td>Optional.</td>
<td>If Project is entered, Task is mandatory.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If Project is not entered, Task cannot be entered.</td>
</tr>
</tbody>
</table>

Use of Locator in Purchasing

Purchase Order Delivery Transaction

When you perform a Purchase Order Delivery Transaction for a project purchase order, the system defaults the project and task from the distribution line of the PO to the receiving locator.

If you define Item Transaction Defaults for receiving locators for specific items in Inventory Setup (assuming these are physical locators), the system concatenates the default locator with the project and task references from the PO distribution line at the time of receiving into Inventory destination.

If you update the project and task on the receiving locator, they are validated against and must exactly match the project and task on the distribution line of the PO.
Purchase Order Return Transaction

When you perform a Purchase Order Return Transaction, the system defaults the project and task from the PO distribution line to the from locator.

If you update the project and task segments of the from locator on a PO return, they are validated against and must exactly match the project and task on the PO distribution line.

Purchase Order Adjustment Transaction

When you perform a Purchase Order Adjustment Transaction, the system defaults the project and task from the PO distribution line to the locator.

If you update the project and task segments of the locator on a PO Adjustment, they are validated against and must exactly match the project and task on the Purchase Order distribution line.

Note: You can not use a project locator for the above transactions if the PO distribution does not have project and task.

Use of Locator in Inventory

The system applies the Common Validation logic to the following transactions:

- Miscellaneous Issue
- Miscellaneous receipt
- Subinventory Transfer
- Locator Transfer
- Interorganization Transfer (Direct)
- Interorganization Transfer (Intransit)
- Cycle Count Adjustment
- Physical Count Adjustment
Use of Locator in WIP

**Project Discrete Job Completion Locator**

When you create a project discrete job (either manually or from the Planner Workbench), the system defaults the project and task from the project discrete job to the project and task segments of the completion locator. If you have assigned a completion locator (common locator) to the routing, the system concatenates the common locator segments with the project and task to create a project locator.

When you update the project and task on the Project Discrete Job, the system re-defaults the project and task segments of the Completion Locator.

If you update the project and task segments of the Completion Locator, they are validated against and must exactly match the project and task on the Project Discrete Job. They cannot be null.

**Project Discrete Job Completion Transaction**

When you perform a Completion Transaction, the system defaults the Completion Locator from the Project Discrete Job.

If you update the project and task segments of the Completion Locator, they are validated against and must exactly match the project and task on the project discrete job. They cannot be null.

**Project Discrete Job Material Requirements**

When you define a project discrete job for an item that has a bill of material, the bill is copied to the project discrete job. If the components are hard pegged (their Pegging attribute is set to either Hard Pegging or End Assembly/Hard Pegging), then the system defaults the project and task from the project discrete job header to their supply locator. If you have assigned supply locators (common locator) on the bills of material, the system concatenates the supply locators with the project and task to create a project locator.

If you update the project and task on the project discrete job, the system re-defaults the project and task segments of any hard pegged components.

If you update the project and task segments of the supply locator for any components of a project discrete job, they are validated against and must either match the project and task on the project discrete job or be null.
If the components are soft pegged, (their Pegging attribute is set to either Soft Pegging or End Assembly/Soft Pegging) the system does not default the project and task segments to the supply locators. You can optionally override this and assign the project and task to the supply locator. The system validates the project and task against the project and task from the project discrete job header.

**Project Discrete Job Component Issue Transaction**

The system validates the supply locator for a Component Issue Transaction for a project discrete job. The supply locator must satisfy one of the following criteria:

- No project/task reference on the supply locator.
- The project and task on the supply locator must exactly match the project and task on the project discrete job.
- Same project but different task, if the profile PJM: Allow Cross Project Issues is set to Yes and the project belongs to a planning group.
- A different project with the same cost group and planning group association as the project on the project discrete job. The profile PJM: Allow Cross Project Issues is set to Yes.

**Project Discrete Job Return Assembly to WIP Transaction**

If you enter or updates the project and task segments of the completion locator on a Return Assembly to WIP Transaction, they are validated against and must exactly match, the project and task on the project discrete job.

**Project Discrete Job Component Return Transaction**

If you enter or update the project and task segments of the supply locator on a Component Return, they are validated and must satisfy one of the following criteria:

- No project/task reference on the supply locator
- The project and task on the supply locator must exactly match the project and task on the project discrete job
- Same project but different task, if the profile PJM: Allow Cross Project Issues is set to Yes and the project belongs to a planning group.
• A different project with the same cost group and planning group association as the project on the project discrete job. The profile PJM: Allow Cross Project Issues is set to Yes.

Project Work Order–less Completion

When you perform a project work order–less completion, you must specify the assembly, quantity, project and/or task and other information. If you have setup a default completion locator on the routing, the system defaults it in for the transaction. If you have not setup a default completion locator, you can specify one for the transaction. When the transaction is saved, the system defaults the project and task from the transaction to the completion locator.

Work order–less completion automatically backflushes all Operation Pull, Assembly Pull, and Push components. The system builds the supply locators for the components by concatenating the supply locator from the item and the project and/or task you specify.

Note: You can not use a project locator as completion locator or supply locator for all the above transactions against a non–project (common) discrete job.

Use of Locator in Shipping

Pick Release

When you perform Pick Release for a project sales order, the system ensures that you can only pick release from the project locators that have the same project and task as the sales order line.

Implementation Notes

New Profile – PJM: Allow Cross Project Issues

A new profile – PJM: Allow Cross Project Issues, has been created to enable cross project issues within planning group. This profile is updatable at site level only.
Cross Project Allocation

Cross project allocation is only allowed for WIP component issue, WIP component backflush and WIP component return transactions. You need to set the profile "PJM: Allow Cross Project Issues" to Yes.

Cross Project Allocation is not allowed if the two projects belong to two different cost groups.

Cross Project Allocation does not support for Sales Order Issue.

Dynamically Creating Stock Locator

Because Project Manufacturing validates all segments of a Stock Locator Flexfield, users should be wary when dynamically creating Stock Locators. For example, Subinventory A may contain Locator 1.1.1. The user will initially be allowed to create Subinventory B, Locator 1.1.1.Project1.Task1. The addition of the fourth and fifth segments of the Locator flexfield cause it to be different from the Locator in Subinventory A. However, these segments are only logical partitions and the physical location of the items in Subinventory B is still Locator 1.1.1. This violates the required uniqueness of Locators within organizations.

Locator is enforced to be unique in an organization or across organizations. In other words, the physical locators need to be unique in an organization or across organizations. For example, if you select to enforce locator uniqueness within an organization, the following are valid locators: (assuming 5 segments locator structure with the last 2 segments are project and task)

<table>
<thead>
<tr>
<th>Subinventory</th>
<th>Locator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store</td>
<td>1.1.1..</td>
</tr>
<tr>
<td>FGI</td>
<td>2.2.2..</td>
</tr>
</tbody>
</table>

However, you can create the following unique project locators. However they are not valid locators because they refer to the same physical locator 1.1.1.. which now exists in two different subinventories within the same organization.

<table>
<thead>
<tr>
<th>Subinventory</th>
<th>Locator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store</td>
<td>1.1.1.P1.T1</td>
</tr>
<tr>
<td>FGI</td>
<td>1.1.1.P2.T2</td>
</tr>
</tbody>
</table>

Users must exercise discipline when dynamically creating Project Locators and verify that the segments of the logical Locator referring to a physical location do not duplicate a Locator in another subinventory.
When attempting to create a unique project Locator, the user should use available List of Values to see existing combinations. As an alternative, the system administrator may opt not to enable dynamically created Locators.
Setup Department in Manufacturing

Linking Department to Expenditure Organization

**Manufacturing Departments**

A Manufacturing Department is an area within your organization that consists of one or more people, machines, or suppliers, where you want to collect costs, apply overhead, and compare load to capacity. You assign a department to each operation in a routing, and assign resources that are available for that department.

You setup a Manufacturing Department in Oracle Bills of Material.

**Expenditure Organizations**

An Expenditure Organization is an organization that can own project events (labor and non–labor) and can incur expenditures for projects in the processing operating unit.

You setup an Expenditure Organization by classifying the organization as Project Expenditure/Event Organization in Oracle Projects.

**Linking Manufacturing Departments to Expenditure Organization in Oracle Projects**

Manufacturing Departments in Oracle Manufacturing must be linked to a Project Expenditure Organization when defined. This enables the manufacturing costs (Resources, Overhead, Outside Processing) incurred in that department to be collected under the expenditure organization.

In the diagram below, the Fabrication department defined in Oracle Bills of Material must be mapped to a Project Expenditure Organization, as indicated by the arrows. This mapping allows manufacturing costs to be collected at the desired level of the project hierarchy. As an example, Fabrication may be mapped to either Assembly or Central, depending on the user’s preference for cost collection.
Setup Project Transaction Source

New Seeded Transaction Sources

Transaction sources identify the source of external transactions you import into Oracle Projects using Transaction Import. For example, you can define the transaction source Payroll to identify expenditure items imported from an external payroll system.

Oracle Projects predefines three transaction sources for Oracle Project Manufacturing costs:

- *Inventory* for inventory transactions.
- *Inventory Miscellaneous* for project inventory issues and receipts entered in the Miscellaneous Transactions window in Oracle Inventory using user defined project transaction types.

Oracle Projects uses these transaction sources to import expenditures from Oracle Project Manufacturing.

If you import transactions from another manufacturing system, you must define your own transaction source.

Manufacturing Transactions to Project Transaction Source Mapping

The following table provides a mapping between the transactions in Inventory and Work in Process to the Transaction Sources in Oracle Projects for these transactions:

<table>
<thead>
<tr>
<th>Inventory and Work in Process Transaction</th>
<th>Transaction Source (Oracle Projects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Transactions (e.g. PO Receipt, Subinventory Transfer, WIP Issue, Misc. Issue, etc.)</td>
<td>Inventory</td>
</tr>
<tr>
<td>Project Miscellaneous Transactions</td>
<td>Inventory Misc</td>
</tr>
<tr>
<td>Work in Process Transactions</td>
<td>Work in Process</td>
</tr>
</tbody>
</table>
Setup Expenditure Types and Expenditure Type Classes

PA: Setup> Expenditures> Expenditure Types

Expenditure Type

An expenditure type is a classification of cost that you assign to an expenditure item you enter in Oracle Projects. An expenditure type is made up of four parts:

- An expenditure category
- A revenue category
- A unit of measure
- An expenditure type class

Expenditure categories are used for grouping expenditure types for costing. Revenue Categories are used for grouping expenditure types for revenue and billing. An expenditure type class tells Oracle Projects how to process an expenditure type. Oracle Projects predefined all expenditure type classes. See Oracle Projects User’s Guide for further details.

You need to link an expenditure type to cost elements and sub-elements so that Inventory and Work in Process transaction costs can be collected in Oracle Projects as expenditures. See: Setup Expenditure Type for Cost Elements: page 2 – 24 and Setup Cost Sub-Elements: page 2 – 25.

Expenditure Type Classes for Project Manufacturing

For Project Manufacturing, Oracle Projects uses the following three expenditure type classes for expenditures coming from Inventory and WIP:

- **Burden Expenditure Type Class**: Burden transactions track burden costs that are calculated in an external system or calculated as separate, summarized transactions. These costs are created as a separate expenditure item that has a burdened cost amount, but has a quantity and raw cost value of zero.
Inventory material overhead and WIP overhead are imported to Oracle Projects as Burden Transaction expenditure type class. They cannot be adjusted in Oracle Projects.

- **Work in Process Expenditure Type Class**: This expenditure type class is used for WIP resource and outside processing costs. You can also use this expenditure type class when you import other manufacturing costs via Transaction Import or when you enter transaction via pre-approved batch entry.

  Adjustments to WIP transactions that are interfaced from WIP to Projects cannot be made in Projects. They should be made in WIP.

- **Inventory Expenditure Type Class**: This expenditure type class is used for the following transactions:
  
  - Inventory transactions that are interfaced from Inventory to Oracle Projects. Inventory is the default expenditure type class associated with the material cost.
  

You can also use this expenditure type class when you import other manufacturing costs via Transaction Import or when you enter transaction via pre-approved batch entry.

Adjustments for the inventory transactions interfaced from Inventory are not allowed, but are allowed for Project Misc. Issues and Receipts in a non-manufacturing installation.

The following table shows the Transaction Sources and Expenditure Type Classes are used for Inventory and WIP transaction:
Inventory and Work in Process Transaction | Transaction Source (Oracle Projects) | Cost Element –> Expenditure Type Class
---|---|---
Inventory Transactions (e.g. PO Receipt, Subinventory Transfer, WIP Issue, Misc. Issue, etc.) | Inventory | Material –> Inventory
| | | Material Overhead –> Burden
| | | Resource –> Work In Process
| | | Overhead –> Burden
| | | Outside Processing –> Work In Process

Project Miscellaneous Transactions | Inventory Misc | Material –> Inventory
| | | Material Overhead –> Burden
| | | Resource –> Work In Process
| | | Overhead –> Burden
| | | Outside Processing –> Work In Process

| | | Overhead –> Burden
| | | Outside Processing –> Work In Process

See Also

*Oracle Projects User’s Guide*

**Associating Expenditure Type to Multiple Expenditure Type Classes**

PA: Setup> Expenditures> Expenditure Types

You can assign multiple expenditure type classes to an expenditure type. For example, an expenditure with the expenditure type Materials can have the expenditure type class Supplier Invoice if it originated in Oracle Payables, and the expenditure type class Inventory if it originated in Oracle Inventory. This example is illustrated below:

<table>
<thead>
<tr>
<th>Expenditure Type</th>
<th>Module Where Expenditure Originated</th>
<th>Expenditure Type Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>Oracle Payables</td>
<td>Supplier Invoice</td>
</tr>
<tr>
<td>Material</td>
<td>Oracle Inventory</td>
<td>Inventory</td>
</tr>
</tbody>
</table>

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

## Example

When you perform a Project Misc. transaction, you specify the item, the project, task, and expenditure type. For example:

- Item – A035789
- Project – C4501
- Task – 2.1
- Expenditure Type – Prototyping

In this example the item has the following cost:

<table>
<thead>
<tr>
<th>Cost Element</th>
<th>Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>$100</td>
</tr>
<tr>
<td>Material Overhead</td>
<td>$50</td>
</tr>
</tbody>
</table>

After the transaction is imported in Oracle Projects, you will see two costed transactions for the above Project Misc Transaction. The two costed transactions have the same expenditure type but different expenditure type classes.

<table>
<thead>
<tr>
<th>Project</th>
<th>Task</th>
<th>Expenditure Type</th>
<th>Raw Cost</th>
<th>Burdened Cost</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4501</td>
<td>2.1</td>
<td>Prototyping</td>
<td>100</td>
<td></td>
<td>Inventory</td>
</tr>
<tr>
<td>C4501</td>
<td>2.1</td>
<td>Prototyping</td>
<td>50</td>
<td></td>
<td>Burden</td>
</tr>
</tbody>
</table>

This example illustrates the use of one expenditure type linked to multiple expenditure type class. You may want to process billing for the two expenditure transactions differently.
Setup Expenditure Types for Cost Elements

PJM: Setup> Financial Accounting> Expenditure Types for Cost Elements
CST: Setup> Expenditure Types for Cost Elements

Linking Expenditure Types to Cost Elements

Expenditure types are used to classify project–related transaction. You must associate in and out expenditure types with each of the five cost elements so that costs for the following inventory transfer transactions can be collected and transferred to Oracle Projects.

- Subinventory transfers between locators with different projects or tasks.
- Miscellaneous issue from a project locator.
- Miscellaneous Receipt into a project locator.
- Project related miscellaneous transactions which issue inventory to, or receive inventory from, Projects.

See Also

Oracle Cost Management User’s Guide
Setup Cost Sub–elements

PJM: Setup>Financial Accounting>Sub–Element>Material, Resources, Overheads
CST: Setup> Sub–Element>Material, Resources, Overheads

Linking Sub–elements to Expenditure Type

You need to link material sub–element, material overhead sub–element, resource sub–element, overhead sub–element and outside processing sub–element to expenditure type. Since item cost in Oracle Manufacturing is expressed in cost elements and sub–elements, by linking cost elements and sub–elements to project expenditure types, you are effectively map the item cost to project expenditures in Oracle Projects. This Oracle Projects to collect Oracle Inventory and Work In Process costs as project expenditures.

The following diagram illustrates the mapping between cost elements, sub–elements and project expenditure types.

![Cost Elements; Cost Subelements; Expenditure Types Diagram]

See Also

Oracle Cost Management User’s Guide
Cost Element Expenditure Type vs. Sub-element Expenditure Type

It is necessary to link both Elements and Sub-elements to Expenditure Types, as both are transferred to Projects for different transaction types, as shown in the table below.

<table>
<thead>
<tr>
<th>Transaction Type (Inventory and WIP)</th>
<th>Expenditure Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subinventory Transfer between locators with different project or task</td>
<td>Cost Element will be used</td>
</tr>
<tr>
<td>Interorganization Transfer between locators with different project or task</td>
<td>Cost Element will be used</td>
</tr>
<tr>
<td>Miscellaneous Issue from a project locator</td>
<td>Cost Element will be used</td>
</tr>
<tr>
<td>Miscellaneous Receipt into a project locator</td>
<td>Cost Element will be used</td>
</tr>
<tr>
<td>All other transactions</td>
<td>Cost subelement will be used.</td>
</tr>
</tbody>
</table>
Setup Project Parameters

Before a project can be linked to a Planning Group, Cost Group, or WIP Accounting Class, those data elements must be defined.

Setup Project

PA: Project > Project
PJM: Project Definition > Project
You setup a project in Oracle Projects.

See Also

Oracle Projects User's Guide

Setup Planning Groups

PJM: Setup> Manufacturing> Planning Groups
MRP: Setup> Planning Group
You can use Planning Groups to group one or more projects that share supply. Projects within the same planning group can share supply, depending on the reservation level set in the plan level options.

With Planning Groups, MRP will reserve project specific supply for demand at a planning group level. A supply for one project can be reserved against a demand for another project, if both projects belong to the same planning group.

See Also

Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide
Setup Cost Groups

PJM: Setup>Financial Accounting>Cost Groups

CST: Setup> Cost Groups

Cost Groups enable you to assign more than one cost to the same item in the same organization. You can define and subsequently use cost groups only if you use Average Costing.

The following table illustrates how you would setup the cost group in a Project Manufacturing environment depending on how you want to track item costs:

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track item costs by project</td>
<td>Assign a unique Cost Group for each project</td>
</tr>
<tr>
<td>Track item costs by a group of projects</td>
<td>Assign a unique Cost Group to the group of projects</td>
</tr>
<tr>
<td>Track item costs by organization</td>
<td>Assign all the projects to the Common Cost Group</td>
</tr>
</tbody>
</table>

See Also

*Oracle Cost Management User’s Guide*

Setup WIP Accounting Classes

PJM: Setup>Financial Accounting>WIP Accounting Classes

WIP: Setup> WIP Accounting Classes

**Link WIP Accounting Classes to Cost Groups in an Average Costing Organization**

You can associate one or more WIP Accounting Classes to a Cost Group. You may want to use different WIP Accounting Classes for different type of projects. By assigning a project to a Cost Group and associating WIP Accounting Classes to a Cost Group, you can make sure that the desired WIP Accounting Classes are used for the project. See: Setup Project Parameter: page 2 – 27.
Default WIP Accounting Classes for Item Categories

You may implement product line accounting by creating product line categories and associating them with product line category sets. You can assign a default WIP Accounting Class to Standard Discrete Jobs for Cost Group/Item Category combinations. The List of Values of WIP Accounting Classes on this form contains only those classes associated with the Cost Group.

See Also

Oracle Work in Process User’s Guide

Associate Project with Planning Group, Cost Group and WIP Accounting Class

PJM: Project Definition>Project Parameters

You need to associate a project with a Planning Group, a Cost Group, and a Default WIP Accounting Class.

The following table explains each field on this form. You should read this carefully before you enter the data:

<table>
<thead>
<tr>
<th>Field</th>
<th>How to use</th>
<th>Updatable?</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>Required</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Planning Group</td>
<td>Optional. If you want to assign the project to a planning group, enter the planning group.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cost Group</td>
<td>If the organization costing method is Standard, this field is disabled.</td>
<td>Yes only if there is no Inventory or WIP transactions taking place for the project</td>
<td>Note: If you want to assign the project to the Common cost group, you need to specify that. The system will not automatically assign a project to the Common cost group if you do not assign a cost group to it.</td>
</tr>
<tr>
<td>Field</td>
<td>How to use</td>
<td>Updatable?</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Default WIP Accounting Class  | If the organization costing method is Standard, you can choose any discrete WIP accounting classes.  
If the organization costing method is Average, you can choose any WIP accounting classes that have been associated with the selected Cost Group. | Yes                             |
| Default Material Task         | If Project Control Level is set to Project and Cost Collection =Yes, this field is enabled.  
This is the default task you want to use for all the project inventory transactions.  
The form creates a default material assignment rule using the project and this task in the Material Task Assignment table. | No                              |
| Default Resource Task         | If Project Control Level is set to Project, Cost Collection=Yes, and WIP is enabled, this field is enabled.  
This is the default task you want to use for all the project WIP (resource, overhead, outside processing) transactions.  
The form creates a default resource assignment rule using the project and this task in the Resource Task Assignment table. | No                              |

See Also

*Oracle Project Manufacturing User’s Guide*

**WIP Accounting Class Defaulting and Validation for Project Discrete Jobs**

If you use Weighted Average Costing method for your organization, the following WIP Accounting Class defaulting and validation logic applies.

**Defaulting Logic**

When a project job is created through MRP or manually, the WIP Accounting Class is defaulted according to the following:
1. The system will check the Default WIP Accounting Class for Categories first to find the WIP Accounting Class that is associated with the Cost Group that the project belongs to, and assigns it to the job.

2. If no valid combination of cost group and item category is found in the Default WIP Accounting Class for Categories table, the system will use the default WIP Accounting Class defined in Project Parameters.

3. If no data is found, the WIP Accounting Class will be left blank on the job form. The user must enter the WIP Accounting Class to save the job.

**Validation Logic**

The Discrete Job form has been enhanced so that the List of Values on the WIP Accounting Class only contains the WIP Accounting Classes associated with the cost group of the project for this job.
This chapter provides you with the list of entities within Oracle Applications that you can reference a project and/or task.
Project References

Oracle Project Manufacturing enables you to enter project and/or task on various entities within Oracle Applications. The following table provides you with a list of such entities. It also list the documentation where you find can detailed information.

<table>
<thead>
<tr>
<th>Product</th>
<th>Form/Window, Region</th>
<th>Documentation Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PJM</td>
<td>Project Parameters</td>
<td>Project Parameters, Oracle Project Manufacturing User’s Guide</td>
</tr>
<tr>
<td>INV</td>
<td>Stock Locator</td>
<td>Defining Stock Locators, Oracle Inventory User’s Guide</td>
</tr>
<tr>
<td>INV</td>
<td>Transaction Type</td>
<td>Defining and Updating Transaction Types, Oracle Inventory User’s Guide</td>
</tr>
<tr>
<td>INV</td>
<td>Transaction Interface, Other alternative region</td>
<td>Viewing and Updating Transaction Open Interface Activity, Oracle Inventory User’s Guide</td>
</tr>
<tr>
<td>OE</td>
<td>Sales Orders, Project</td>
<td>Defining Sales Order Line Project Information, Oracle Order Entry/Shipping User’s Guide</td>
</tr>
<tr>
<td>OE</td>
<td>Sales Orders (Lines block), Project alternative region</td>
<td></td>
</tr>
<tr>
<td>OE</td>
<td>Schedule, Schedule Sales Order (Lines block), Project alternative region</td>
<td>Updating Lines to Schedule, Oracle Order Entry/Shipping User’s Guide</td>
</tr>
<tr>
<td>OE</td>
<td>Sales Orders, Option Lines (Option), Project alternative region</td>
<td>Choosing Options, Oracle Order Entry/Shipping User’s Guide</td>
</tr>
<tr>
<td>MRP</td>
<td>Forecast Entries</td>
<td>Defining a forecast, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide</td>
</tr>
<tr>
<td>MRP</td>
<td>MDS Entries</td>
<td>Defining Schedule Entries Manually, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide</td>
</tr>
<tr>
<td>MRP</td>
<td>MPS Entries</td>
<td>Defining Schedule Entries Manually, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide</td>
</tr>
<tr>
<td>MRP</td>
<td>MPS Workbench, Implement</td>
<td>Implementing Planned Orders, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide</td>
</tr>
<tr>
<td>MRP</td>
<td>MRP Workbench, Implement</td>
<td>Implementing Planned Orders, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide</td>
</tr>
<tr>
<td>PO</td>
<td>Requisitions, Distribution (Distribution), Project alternative region</td>
<td>Entering Requisition Distributions, Oracle Purchasing User’s Guide</td>
</tr>
<tr>
<td>PO</td>
<td>Requisitions, Preferences (Preferences), Project Information alternative region</td>
<td>Entering Requisition Preferences, Oracle Purchasing User’s Guide</td>
</tr>
<tr>
<td>Product</td>
<td>Form/Window, Region</td>
<td>Documentation Reference</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>PO</td>
<td>Purchase Orders, Distribution (Distribution), Project alternative region</td>
<td>Entering Purchase Order Distributions, <em>Oracle Purchasing User’s Guide</em></td>
</tr>
<tr>
<td>PO</td>
<td>Purchase Orders, Preferences (Preferences), Project Information alternative region</td>
<td>Entering Purchase Order Preferences, <em>Oracle Purchasing User’s Guide</em></td>
</tr>
<tr>
<td>PO</td>
<td>Releases, (Distribution), Project alternative region</td>
<td>Entering Release Distributions, <em>Oracle Purchasing User’s Guide</em></td>
</tr>
<tr>
<td>PO</td>
<td>Releases, Preferences</td>
<td><em>Oracle Purchasing User’s Guide</em></td>
</tr>
<tr>
<td>PO</td>
<td>Quotations, More alternative region</td>
<td>Entering Quotation Lines, <em>Oracle Purchasing User’s Guide</em></td>
</tr>
<tr>
<td>QA</td>
<td>Collection Element, Plan</td>
<td>Collection Elements, <em>Oracle Quality User’s Guide</em></td>
</tr>
</tbody>
</table>
This chapter describes the key features related to project procurement. Procurement related material and services is the subject of this chapter.
Overview

Project Manufacturing uses Oracle Purchasing for Project Procurement. In release 11 the system provides:

- Project and task references on purchase requisitions
- Project and task references on purchase orders
- Project and task references on blanket releases
- Project and task references on Request for Quotations (RFQs)
- Project and task references on purchase quotations
- Purchasing for project expense and project inventory items
- Commitments for project expense and project inventory items
- Project drop shipments
- Project outside processing
- Project internal requisitions
- Receipts into project inventory

See Also

Use Project Manufacturing without Oracle Projects: page 13 – 2
Project Procurement Flow

The diagram below describes a generic high level Project Procurement flow.
A complete project procurement cycle starts with the generation of a purchase requisition. The sources for creating a requisition are:

- Planned orders
- Drop shipments
- Outside processing operations
- Manual entry
- Import from external systems (using ReqImport)

Depending on certain company regulations (or compliance with FAR/DFAR requirements) it might be necessary to generate a Request For Quotation (RFQ) for a requisition. A user can use the Auto–Create RFQ function to automatically convert the requisition into a RFQ.

The RFQ is typically sent out to one or more suppliers, who respond by sending in their quotes. The quote can be generated from a RFQ using the Copy functionality. The user can analyze and approve a quote and use the quote in Auto–Source Rules.

The last step is to create a project purchase order. The project purchase order can be automatically generated from a project requisition using the Auto–Create Purchase Order functionality, or entered manually.

---

**Project Commitments**

*Project committed costs* represent the outstanding requisitions and purchase orders charged to a project, and include recorded but unposted supplier invoices, or recorded but unposted deliveries to inventory or shop floor destination. You can report the total costs of a project by reporting the committed costs along with the actual costs.

Total Project Costs = (Committed Costs + Actual Costs)

You can report the flow of committed costs through Oracle Purchasing, Oracle Payables, and Oracle Inventory, which can include the following committed cost buckets (asset or expense items):

- Open Requisitions (unapproved or approved, unpurchased requisitions). These do not include internal requisitions.
- Open Purchase Orders (unapproved or approved, uninvoiced purchase orders)
- Pending Invoices (supplier invoices not yet interfaced to Oracle Projects)
• Manufacturing (PO delivery to Inventory destination: project subinventory/locator; or Shop Floor (outside processing) destination: project discrete job); all not yet interfaced to Oracle Projects)

Once either the supplier invoice, for expense items, or the PO delivery to inventory or shop floor, for inventory/shop floor destination items, is interfaced and posted to Projects, the related commitment is settled to zero and an actual cost recorded in the Project Cost Subledger.

You can report summary committed cost amounts for your projects and tasks, and can also review detailed requisitions and purchase orders that backup the summary amounts.

Attention: Substantially all of the commitment tracking occurs within Oracle Projects, specifically the Projects PSI (Project Status Inquiry) function. Oracle Purchasing reports PO Commitment Initiations in the Purchase Order Commitment By Period Report, but does not report downstream PO Commitment status changes or commitment settlements. PSI amounts may be exported to a spreadsheet for subsequent reporting.

Implementation Notes

During the implementation the following notes need to be considered.

Multiple Projects On One Document

MRP, Outside Processing, Internal Sales Orders, and Drop Shipments will generate one requisition for each planned order with one requisition line and one requisition distribution line.

A user can manually enter a requisition with multiple requisition lines. Each line can have a distribution line that can be associated with a project and task. For a Project Manufacturing environment we support the following scenarios for requisitions with inventory destination:

• For each requisition line a user can enter one distribution line with project and task
• For each requisition line a user can enter multiple distribution lines with the same project and task
• For each requisition line a user can enter multiple distribution lines with different projects and tasks
• For each requisition line a user can enter one or multiple distribution lines without project and task (common inventory)

In the scenario of multiple distribution lines with different projects and tasks the user will choose the *multiple lines* option during receiving, and the locator defaulting and validation logic will make sure that the correct project and task are propagated on the locator.

For purchases with *expense destination* a user can enter requisition lines with multiple distribution lines that each have a different project and task.

**Expense Purchases**

Expense and Inventory Purchases are costed differently in the system. Expense purchases will result in invoices, entered in Payables, and imported into Oracle Projects using Transaction Import. Oracle Projects incurs the invoice costs.

**Inventory Purchases**

Inventory Purchases will be received into Inventory using receiving functionality. Upon receiving into the destination location the purchase costs are posted to Oracle Cost Management and interfaced to Oracle Projects. For Inventory Purchases a user will also book invoices and invoice costs in Payables. Oracle Projects will ignore these transactions during Transaction Import in order to avoid double counting.

Invoice Price Variances (IPV) are not automatically transferred to Projects. The user can derive IPV from the system and book the IPV manually on a project using an expense transaction.

For Inventory Purchases the system will check the Project Control Level for the destination inventory organization upon entry of the distribution line project and task. If the control level in the destination (receiving) organization is set to *Project*, you can optionally enter a project and task. If the control level is set to *Project–Task*, you can enter a project. If you enter a project, you must also enter a task.

**Auto–Create RFQ**

In creating a RFQ from a requisition the following restrictions apply:

• A RFQ line with project and task is created each requisition line during Auto–Create RFQ. The system will populate the project and task on the RFQ line from the first requisition distribution line for that requisition line
• Grouping rules should not be used. A user should create one RFQ line for each requisition line with one distribution line.

Receiving

For more information on project locators validation and defaulting during receiving transactions, see the chapter Setting Up.

See Also

Oracle Purchasing User's Guide
This chapter explains the Project MRP features in Oracle Project Manufacturing. It also explains the Project MRP netting logic with examples for hard and soft pegged items.
Project MRP

Overview

Project MRP is one of a series of features in Oracle Applications designed to support companies that manufacture products for projects or contracts.

Project MRP allows you to plan in a project environment by separating all sources of supply and demand by project. This allows the planning process to identify components as common or project specific, track existing inventory by project, and provide visibility to all supply and demand associated with a project.

With Project MRP, you can:

- Include project and task references in forecast, MPS, and MDS entries
- Load, copy, or merge forecast, MPS, and MDS entries with project and task references
- Recognize and allocate supply according to project and task references
- Combine project related supply and demand with common related supply and demand in the same plan or schedule
- Perform netting by planning groups, project, and tasks
- Generate planned orders with project and task references
- Analyze a plan (in the Planner Workbench) by project and task
- Link sales order lines, production orders, and purchase orders to projects and tasks, allocate on-hand inventory to projects, and issue inventory to projects
- Perform online net change simulation in a project environment
Project MRP Setup

Selection of Project MRP plan options and choice of pegging attributes of an item determine the output of a Project MRP plan. This section describes the Project MRP plan options and the item attributes that impact Project MRP planning logic.

See Also

Establishing a Project MRP Environment, Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide

Project MRP Plan Options

Project MRP provides the following plan options to the users in the Oracle Project Manufacturing environment. There are multiple options available for Reservation Level and Hard Pegging Level in the Pegging region of the Plan Options form. The Pegging check box has to be checked in order to access these plan options.

Reservation Level

The Reservation Level determines the method of pre-allocation of project/supply to project/demand. There are four options for reservation level:

- **Planning Group**: Choosing this option for a Project MRP plan will reserve project specific supply at the planning group level. Supply for one project can be reserved against demand for another project belonging to the same planning group.

- **Project**: A project level reservation will allow project specific supply to be used for demand specific to that project only. This option will allow cross allocation across tasks within the same project.

- **Task**: A task level reservation will reserve supply for a project–task against demand for the same project–task only.

- **None**: Reservations for this option occurs like any common MRP planning process.
Hard Pegging Level

The Hard Pegging Level option determines if project and task references will be added to planned orders for hard pegged items. (The Pegging item attribute must be either Hard Pegging or End Assembly/Hard Pegging) No project references are associated with planned orders of soft pegged items. Project MRP suggested planned orders will be assigned one of the following levels:

**Note:** Hard Pegging Level options work independent of the Reservation Level options.

- **Project:** The planned orders generated for hard pegged items will carry project references only.
- **Project–Task:** This option will attach project and task references to the planned orders of hard pegged items.
- **None:** This option will not add any project/task reference to the Project MRP suggested planned orders.

**See Also**

Launching a Project MRP Plan, *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide*

Overview of Project MRP, *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide*

Setting Up Project MRP in Oracle Inventory, *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide*

Setting Up Project MRP in Oracle Projects, *Oracle Master Scheduling/MRP and Oracle Supply Chain Planning User’s Guide*
Item Pegging Attributes

Item pegging attribute defined in Oracle Inventory determines the allocation of excess available supply for a project–task to the demand and the generation of Project MRP planned orders. The following table compares the available item pegging attributes.

<table>
<thead>
<tr>
<th>Item Pegging Attribute</th>
<th>Allocation of Excess Supply</th>
<th>Generation of Planned Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft Pegging, or End Assembly/Soft Pegging</td>
<td>Excess project or common supply is available to satisfy project demand of any project</td>
<td>Planned orders do not carry project and task references</td>
</tr>
<tr>
<td>Hard Pegging, or End Assembly/Hard Pegging</td>
<td>Common supply is not available for project demand. Excess supply in one project can be used for demand of a different project in the same planning group if reservation level is Planning Group.</td>
<td>Planned orders carry project and task references as defined by the Hard Pegging Level plan option.</td>
</tr>
<tr>
<td>None</td>
<td>Disables project material allocation.</td>
<td>Planned orders do not carry any project or task references irrespective of the hard pegging level</td>
</tr>
</tbody>
</table>
Project MRP Planning Logic

Project MRP planning logic differs from the regular MRP planning logic primarily in the way it determines what supply is available to satisfy demand. It also differs in the way it assigns any suggested planned orders that result from the planning process.

Instead of simply considering existing inventories and scheduled receipts when netting supply against demand, the project MRP planning logic goes through a process of pre-allocation. Before netting supply against demand, the planning process analyzes the project/numbers (along with the item attributes, project parameters, and plan level options you have set), to determine what supply is available for meeting project/demand. Supply and demand that is not specific to any project is defined as common. The project MRP planning logic treats common supply or demand as a null project.

During the pre-allocation phase, the planning process first nets a project’s demand with its supply. It then checks the reservation level to determine if excess can be shared. This only works for items that have their attributes set to soft or hard pegging.

The following table compares the logic in regular MRP and project MRP:

<table>
<thead>
<tr>
<th>Regular MRP</th>
<th>Project MRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explode bill of materials</td>
<td>Explode bill of materials</td>
</tr>
<tr>
<td>Snapshot of inventory and supply/demand</td>
<td>Snapshot of inventory and supply/demand</td>
</tr>
<tr>
<td>Pre-allocate supply to projects</td>
<td>Net supply against demand; assign suggested planned orders to projects</td>
</tr>
</tbody>
</table>
Netting Logic

By combining the item pegging attribute with the plan options reservation and hard pegging levels, you can exercise a high degree of control over how the planning process pre–allocates supply for an item. The table below summarizes the possible combinations and types of behavior you can enforce.

<table>
<thead>
<tr>
<th>Reservation Level</th>
<th>Hard Pegging Level</th>
<th>Item Pegging Attribute</th>
<th>Netting Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Group</td>
<td>Project</td>
<td>Hard Pegging</td>
<td>Reserve supply at planning group level; Create planned orders at project level</td>
</tr>
<tr>
<td>Planning Group</td>
<td>Project–Task</td>
<td>Hard Pegging</td>
<td>Reserve supply at planning group level; Create planned orders at project–task level</td>
</tr>
<tr>
<td>Planning Group</td>
<td>None</td>
<td>Hard Pegging</td>
<td>Reserve supply at planning group level; Create planned orders without project references</td>
</tr>
<tr>
<td>Project</td>
<td>Project</td>
<td>Hard Pegging</td>
<td>Reserve supply at project level; Create planned orders at project level</td>
</tr>
<tr>
<td>Project</td>
<td>Project–Task</td>
<td>Hard Pegging</td>
<td>Reserve supply at project level; Create planned orders at project–task level</td>
</tr>
<tr>
<td>Project</td>
<td>None</td>
<td>Hard Pegging</td>
<td>Reserve supply at project level; Create planned orders without project references</td>
</tr>
<tr>
<td>Project–Task</td>
<td>Project</td>
<td>Hard Pegging</td>
<td>Reserve supply at project–task level; Create planned orders at project level</td>
</tr>
<tr>
<td>Project–Task</td>
<td>Project–Task</td>
<td>Hard Pegging</td>
<td>Reserve supply at project–task level; Create planned orders at project–task level</td>
</tr>
</tbody>
</table>
### Project Netting Examples

#### Hard Pegging

In the following diagram, the item is an MRP-planned component used in four projects and also available as in the common supply.

During the pre-allocation phase of netting, the planning engine divides the supply for the item by project. In Period 1, the demand from project 2 (P2) is 100. Since there is an on-hand quantity of 25 for P2 and no scheduled receipts, there is still demand for P2 of 75. The planning engine cannot apply excess from any other source to meet this demand. The planning engine looks for the available supply for P2 and finds it in Period 2. This supply is allocated/pegged to the demand in Period 1. The remaining demand from Period 1 (75) plus the demand in Period 2 (500) equals 575. The scheduled receipts leaves an excess of 25, which is carried forward (see the Projected Available).
Once again, the planning engine can only apply the excess P2 supply to P2 demand. The last P2 demand is in Period 3 (for 300), consuming the excess of 25 from Period 2 and leaving a net requirement of 275, which the planning engine converts into planned orders.

Because the item is hard pegged, and the hard pegging level (from the plan options) is set to project, the P2 project reference is added to the suggested planned order.

| Item Pegging: Hard Pegging | On Hand = 5 (common) |
| Reservation Level: Project | On Hand = 10 (P1) |
| Hard Pegging Level: Project | On Hand = 25 (P2) |
|                          | On Hand = 18 (P3) |

<table>
<thead>
<tr>
<th>A7004: MRP Planned</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Period 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand</td>
<td>100 (P2)</td>
<td>500 (P2)</td>
<td>300 (P2)</td>
</tr>
<tr>
<td></td>
<td>200 (P1)</td>
<td>150 (P1)</td>
<td>120 (P4)</td>
</tr>
<tr>
<td></td>
<td>65 (P3)</td>
<td>50 (P3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>400 (common)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled Receipts</td>
<td>265 (P1)</td>
<td>600 (P2)</td>
<td>600 (common)</td>
</tr>
<tr>
<td></td>
<td>20 (P4)</td>
<td></td>
<td>100 (P3)</td>
</tr>
<tr>
<td>Planned Orders</td>
<td></td>
<td>75 (P1)</td>
<td>275 (P2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100 (P4)</td>
</tr>
<tr>
<td>Projected Available</td>
<td>525 (P2)</td>
<td>25 (P2)</td>
<td>0 (P2)</td>
</tr>
<tr>
<td></td>
<td>75 (P1)</td>
<td>0 (P1)</td>
<td>0 (P1)</td>
</tr>
<tr>
<td></td>
<td>53 (P3)</td>
<td>3 (P3)</td>
<td>3 (P3)</td>
</tr>
<tr>
<td></td>
<td>205 (common)</td>
<td>205 (common)</td>
<td>205 (common)</td>
</tr>
<tr>
<td></td>
<td>20 (P4)</td>
<td></td>
<td>0 (P4)</td>
</tr>
</tbody>
</table>

Similiar logic also applies to the supply and demand for projects P1, P3, P4, and common.

**Soft Pegging**

In the following diagram, the item is an MRP-planned component used in four projects and also available as common supply.
During the pre-allocation phase of netting, the planning engine divides the supply for the item by project. In Period 1, the demand from project P2 is 100. Since there is an on-hand quantity of 25 for P2 and no schedules receipts, there is still demand for P2 of 75. To meet this demand, the planning engine looks for more P2 supply, which it finds in Period 2. The supply is pegged/allocated to the demand in Period 1. Project P1 has an excess of 75 in Period 1 (scheduled receipts plus the on-hand quantity minus P1 demand), which is then used to partially satisfy the P1 demand in Period 2. Period 1 also has common demand. To meet this demand, the planning engine allocates the receipts in Period 3, leaving an excess of 105. This excess has no further common demand to meet. Period 3 has a demand from P4 of 120, which is reduced to 70 by P4 scheduled receipts.

After satisfying all the project specific demand in the three periods we are left with an excess of 105 (common) in Period 1, and unmet demands of 42 P3 in Period 1, 75 P1 and 50 P3 in Period 2, 75 P2 and 70 P4 in Period 3.

Unlike the hard pegging example, the planning process can use other excess common supply in Period 1 to meet the remaining demand for P3 in the same period. So 42 common are used to meet the P3 demand in Period 1. The remaining 63 common partially satisfy the P1 and P3 demand in Period 2, leaving an unmet demand of 62 in Period 2. The demand for 145 units in Period 3 remains unsatisfied. This results in the planned orders for 62 in Period 2 and 145 in Period 3 without project and task references.
<table>
<thead>
<tr>
<th>Item Pegging: Soft Pegging</th>
<th>On Hand = 5 (common)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservation Level: Project</td>
<td>On Hand = 10 (P1)</td>
</tr>
<tr>
<td>Hard Pegging Level: Project</td>
<td>On Hand = 25 (P2)</td>
</tr>
<tr>
<td></td>
<td>On Hand = 18 (P3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A7004: MRP Planned</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Period 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100 (P2)</td>
<td>500 (P2)</td>
<td>300 (P2)</td>
</tr>
<tr>
<td></td>
<td>200 (P1)</td>
<td>150 (P1)</td>
<td>120 (P4)</td>
</tr>
<tr>
<td></td>
<td>65 (P3)</td>
<td>50 (P3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>400 (common)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled Receipts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>265 (P1)</td>
<td>800 (P2)</td>
<td>50 (P4)</td>
</tr>
<tr>
<td></td>
<td>5 (P3)</td>
<td></td>
<td>500 (common)</td>
</tr>
<tr>
<td>Planned Orders</td>
<td></td>
<td>62</td>
<td>145</td>
</tr>
<tr>
<td>Projected Available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>725 (P2)</td>
<td>225 (P2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75 (P1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>63 (common)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Project MRP Pegging Logic

Generation of project and task references on planned orders is a function of the Hard Pegging Level plan option and the item attributes. Even though Project MRP does not display the project and task references on planned orders for soft pegged items, these references are maintained within the system. These are used if the children of this soft pegged item happen to be hard pegged items. The following example illustrates the pegging logic for Project MRP.

Figure 5 – 1 Project MRP Pegging Logic

In the above figure, A2003 is a soft pegged item, which has A3002 as its child item. A3002 is a hard pegged item. The Project MRP plan for A1001 has the Hard Pegging Level set to Project.
Being a soft pegged item, planned orders for A2003 will not carry any project reference. However, A3002 will carry a project reference on its planned orders even though the planned orders for its parent do not contain project references.

Order Modifiers in Project MRP

Project MRP uses the same Order Modifiers Logic as standard MRP. The assignment of project references for hard pegged items (and Hard Pegging Level Project or Task) to planned orders occurs as per the logic shown in the following figure.

Any excess order quantity is assigned a project reference that belongs to a nearest future unsatisfied demand. In no demand exists, then the planned order will carry a null project and task reference. (i.e. common supply).
Figure 5–2 Assigning Project References to Planned Orders After Applying Order Modifiers

1. Apply MRP Order Modifier Logic
2. Excess Order Qty for current period Exists?
   - N: STOP
   - Y: Look for demand in nearest future period
3. Future Demand Exists?
   - N: Assign null project and task (Common)
   - Y: Assign the project to the planned order
Planners Workbench in Project MRP

Viewing Project Material Plans

The MPS Workbench and MRP Planner Workbench in Project MRP have significant enhancements to enable the planner in a Project Manufacturing environment to conveniently view planning information by project and execute manufacturing plans in the workbench by project.

The planner can enter Planning Group, Project Number and/or Task Number as the search criteria in the Find Items window of the Planner Workbench. This enables the planner to find Supply, Demand or Supply/Demand information by project or project–task.

The planner could also use customizable folders in the Supply, Demand or Supply/Demand screens to query planning information for a particular project or project–task.

The Horizontal Plan and Enterprise View windows enable the planner to view supply and demand information by Planning Group, Project, and Project–Task. The planner can also choose to see the planning status of all the material or only common material in these forms.

Project Related Exception Messages in Project MRP

Along with the other MRP Exception Messages, Project MRP provides the following project related exception messages that can help monitor project material plans:

- *Items with Excess inventory in a project:* This exception message enlists all the items that have an excess inventory in a project or project–task.
- *Items with Shortage in a project:* This exception message highlights the items whose demand exceeds supply for that project or project–task.
- *Items allocated across projects:* This exception message indicates items where supply for one project/task is used to satisfy demand for another project/task.
Implementing Project MRP Plans

Using the features of the Project MRP Planner Workbench, the planner can view and implement the planned orders by project or project-task. The planner can choose to override the suggested project and task references on planned orders. The Implement Property Sheet form allows the planner to view and change the project or project-task of such planned orders. You can also simulate changes to dates, quantities, or project references in the Planner Workbench and generate net change simulation plans.
Implementation Notes

Forecast Consumption for Projects
Project MRP does not support forecast consumption by project and task. An alternative would be to use demand classes to represent projects. Forecast consumption by demand classes is supported.

Issue of Material to WIP across Projects within the Same Planning Group
Although Project MRP considers excess supply of material for one project as available to another project within the same planning group (if the reservation level is Planning Group), the material cannot be used directly across projects if the projects belong to different cost groups. A subinventory transfer is required if those items must be issued to a WIP job belonging to another project.

However, material belonging to one project can be issued to a WIP job of a different project if:

- Both the projects belong to the same planning group, and
- Both the projects share the same cost group, and
- The profile PJM: Allow Cross Projects Issues is set to Yes.

Sales Orders Shipment from Inventory of a Different Project within the Same Planning Group
Sales order shipment from inventory belonging to a different project but in the same planning group is not supported. Project inventory should be moved to the correct project locator before sales order shipments have to be done for that project.

Exception Messages for Project Supply Orders
Project MRP does not produce Reschedule In and Reschedule Out exception messages for project supply orders. However, the exception messages for Items with Excess inventory in a project and Items with a shortage in a project could be used for determining the timing of supply orders.
One of the primary capabilities of Oracle Project Manufacturing is the ability to accumulate manufacturing costs within manufacturing applications and transfer those costs to Oracle Projects.

This chapter discusses the four processes used to cost in Oracle Inventory and Work in Process transactions, to transfer such costs to Oracle Projects, and to import and correct the costed transactions in Oracle Projects.

This chapter does not cover Project Manufacturing costing functionality. See Project Manufacturing Costing, Oracle Cost Management User’s Guide for information.
Transferring Manufacturing Costs to Oracle Projects

Process Flow

When transactions occur in Inventory and WIP, they are processed by several programs before they are visible in Oracle Projects. The following diagram shows the flow of transaction costing and cost collection. Each program will be explained in detail in the next section.

Programs

Cost Manager

The Cost Manager is a concurrent program you launch from the Inventory transaction Interface Manager form. It in turn launches the Cost Worker to cost Inventory and WIP transactions.
The task for the Cost Worker is to create accounting distributions for the transactions.

**Project Cost Transfer (or Cost Collector)**

Oracle Project Manufacturing transfers Inventory and WIP costs to Oracle Projects via the program *Project Cost Transfers*. You specify the *Number of days to leave costs uncollected*. When the batch job is submitted, both the Inventory and WIP costs will be transferred to Oracle Projects.

The Cost Collector collects the costs of project related transactions and passes these costs by project, task, and expenditure type to the Transaction Import Interface table in Oracle Projects. These transactions can then be imported into Oracle Projects. Common transactions, those without a project/task reference, are not picked up by the Cost Collector.

Inventory transactions are imported using the transaction source *Inventory*. WIP transactions are imported using the transaction source *Work in Process*. Project miscellaneous transactions are imported using the transaction source *Inventory Misc*.

The Cost Collector processes (collects) transactions using Cost Collection Workers. Transactions that need to be collected and costed are grouped and a separate worker is assigned the job of collecting and costing transactions within a single group.

A log file of all the validation and any SQL errors encountered while processing the transactions is maintained for each worker request. All program validation errors are updated in the transactions table.

**Note:** For more information on Cost Collector, see *Oracle Cost Management User’s Guide*.

**PA Transaction Import**

When you import transaction information from Oracle Manufacturing, Oracle Projects records the transaction details and the source of the imported transactions during transaction import. Transaction Import automatically validates the transaction information, reports any exceptions, and creates transactions for all of the valid transactions. Oracle Projects does not import transactions more than once.

**Transaction Sources**

When you submit Transaction Import, Oracle Projects requires you to identify the source of the transaction you want to import. Project Manufacturing transactions sources are:
• Inventory
• Work in Process
• Inventory Misc

Submitting Transaction Import
Use the Run Requests form or choose Expenditures, Import from the Navigator window to submit the PRC: Transaction Import process. You must specify a transaction source when you submit this process.

Output Reports
Transaction Import has two output reports. The first allows you to review the number of successfully imported transactions, the second enables you to review transactions that were rejected by Transaction Import.

Note: For more information on Transaction Import, see Oracle Projects User's Guide.

View/Correct Transaction
Transaction Import may reject importing transactions for some of the following reasons:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUPLICATE_ITEM</td>
<td>Self-explanatory</td>
</tr>
<tr>
<td>INVALID_END_DATE</td>
<td>Not valid week ending date</td>
</tr>
<tr>
<td>INVALID_PROJECT</td>
<td>Not valid project number</td>
</tr>
<tr>
<td>ITEM_NOT_IN_WEEK</td>
<td>Timecard item not in expenditure week</td>
</tr>
<tr>
<td>PA_EXP_TASK_TC</td>
<td>Violates task transaction control</td>
</tr>
<tr>
<td>PA_EX_PROJECT_CLOSED</td>
<td>Project is closed</td>
</tr>
</tbody>
</table>

Viewing Rejected Transactions
Transaction records that fail the validation process remain in the interface table. If any one expenditure item in an expenditure fails validation, Oracle Projects rejects the entire expenditure and updates each expenditure item in the expenditure with a status of R (Rejected). However, only the expenditure item that was rejected appears on the exception report – other expenditure items attached to the expenditure being rejected do not appear on the report. Also, only the transaction having invalid data will have a rejection reason specified. The rest of the expenditures remain within the batch interface to Oracle Projects. Failed transactions can be viewed with SQL*Plus or an Oracle Projects Report.
Correcting Rejected Transactions

If you need to make changes to the source information because of invalid data, you can do it in two ways:

Delete the rejected rows in the interface table, correct or reverse the failed transactions in Oracle Inventory or Work in Process, and reprocess them from the feeder system.

Alternatively, you can also correct the transactions in the interface table using SQL*Plus. Then update the TRANSACTION_STATUS_CODE column to the value P so Transaction Import can select the items the next time you run it. When you resubmit updated transactions for processing, all validation is performed again.

See Also

*Oracle Projects User’s Guide*
Task Auto–Assignment

This chapter explains the use of Oracle Project Manufacturing’s Task Auto–Assignment feature. Task Auto–Assignment gives you a flexible way to specify how to track material and resource costs by tasks within your project. Rather than manually specifying which tasks are associated with which job, Task Auto–Assignment dynamically assigns tasks to jobs based upon task assignment rules you create.
Task Auto-Assignment

PJM: Project Definition > Task Auto-Assignment

Overview

The Task Auto-Assignment feature in Project Manufacturing allows the user to specify a set of rules for assigning tasks to inventory and WIP transactions. Based on these rules, tasks are automatically assigned to project material (inventory) and resource (WIP) transactions.

Currently this feature provides four criteria each for creating the user defined rules. These are:

Material task assignment criteria:
- Item Number
- Purchase Order Number
- Category Code
- Subinventory

Resource task assignment criteria:
- Operation Code
- Job Number
- Assembly
- Department

For a given project, the user can select any combination of the above mentioned criteria to define a rule for a particular task.

Whenever a project related material or resource transaction is recorded, Task Auto-Assignment compares the conditions for that
transaction with the pre-specified rules for the project and automatically assigns the task. For example, a user who wants to monitor the usage of certain critical raw material for a project can define a rule that links a task to that material (item number). Whenever a transaction for this material occurs, it will be charged to that task.

A similar rule on the resource side would assign a critical operation to a separate task in the project WBS.

The following sections explain how to use this feature, the benefits of the Task Auto-Assignment feature and illustrate some examples where this feature could be effectively deployed.

Material Task Assignment

PJM: Project Definition > Task Auto-Assignment > Material Task Assignment

The Material Task Assignment window lets you associate a task with an item, PO number, item category, and subinventory. Task Auto-Assignment looks at the Item, PO number (if any), category, and subinventory of a material transaction and finds a rule that matches the transaction. It then assigns a task to the transaction. If more than one rule matches the values of some of these fields, Task Auto-Assignment looks for the rule that corresponds to the highest-priority field, which is the field that appears on the window first. For example, suppose you’ve defined two rules for project 1:

<table>
<thead>
<tr>
<th>Project</th>
<th>Task</th>
<th>Item</th>
<th>PO Number</th>
<th>Category</th>
<th>Subinventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>T1</td>
<td>A</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1</td>
<td>T2</td>
<td>A</td>
<td></td>
<td></td>
<td>Stores</td>
</tr>
</tbody>
</table>

When you deliver PO#101 for item A into Stores, Task Auto-Assignment matches the transaction with the first rule (and therefore assigns task T1 to the transaction). The reason it picks the first rule rather than the second, even though both contain matching fields, is because the PO number has a higher priority than Subinventory.
Resource Task Assignment

The Resource Task Assignment window lets you associate a task with an operation code, job, assembly, and department. Task Auto-Assignment looks at the values entered in these fields and finds a rule that matches a resource transaction. It then assigns the task to the transaction. If more than one rule matches the values of some of these fields, Task Auto-Assignment looks for the rule that corresponds to the highest-priority field, which is the field that appears on the window first. For example, suppose you’ve defined two rules for project 1:

<table>
<thead>
<tr>
<th>Project</th>
<th>Task</th>
<th>Operation Code</th>
<th>Job.Number</th>
<th>Assembly</th>
<th>Department Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>T1</td>
<td>Assembly</td>
<td>222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1</td>
<td>T2</td>
<td>Assembly</td>
<td></td>
<td></td>
<td>AS2</td>
</tr>
</tbody>
</table>

When you perform a resource transaction for job 222 in the Assembly operation in the AS2 department, Task Auto-Assignment matches the transaction with the first rule (and therefore assigns task T1 to the transaction). The reason it picks the first rule rather than the second, even though both contain matching fields, is that Job Number has a higher priority than Department Code.

See Also

Oracle Project Manufacturing User’s Guide

Task Auto-Assignment Program

The Task Auto-Assignment Program is run by the Cost Collector submission process. It does not require any special actions.

See Also

Oracle Project Manufacturing User’s Guide
Task Auto-Assignment assigns a task to the transaction based on the user-defined rule(s). When the transaction costs are transferred to Oracle Projects, costs are collected under the desired task.

The following process diagram shows the Cost Collection flow of a transaction through the Cost Worker and Cost Collector.

**Benefits**

The Task Auto-Assignment feature provides users with some distinct benefits and has far-reaching implications on how project work breakdown structures are linked to manufacturing activities. Some of the key benefits are listed here:

1. **Provides Complete Flexibility in Defining Project WBS**

   Without the Task Auto-Assignment feature, the task number for manufacturing activities (Requisitions/Purchase Orders and WIP Jobs) would have been either:
   - Suggested by the planning system (using Project MRP), or
   - Manually entered by the user.

   If the tasks are suggested by the planning system, the tasks for the requisitions and WIP Jobs would be derived from their MDS/MPS planned parent. i.e. the procurement and assembly activities of component items would have the same tasks as their parent. As a consequence, all the material and resource costs are bundled up under one task. This is illustrated in the following example for Project P1:
This is represented in the following table:

<table>
<thead>
<tr>
<th>Planned Orders Generated</th>
<th>Project</th>
<th>Task</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Order for SA1</td>
<td>P1</td>
<td>1</td>
<td>Task for the Master Planned Item</td>
</tr>
<tr>
<td>Purchase Requisition for LongLT</td>
<td>P1</td>
<td>1</td>
<td>Item pegged to SA1</td>
</tr>
<tr>
<td>Purchase Requisition for Misc1</td>
<td>P1</td>
<td>1</td>
<td>Item pegged to SA1</td>
</tr>
<tr>
<td>Purchase Requisition for Misc2</td>
<td>P1</td>
<td>1</td>
<td>Item pegged to SA1</td>
</tr>
<tr>
<td>Work Order for SA2</td>
<td>P1</td>
<td>2</td>
<td>Task for the Master Planned Item</td>
</tr>
<tr>
<td>Purchase Requisition for HiValue</td>
<td>P1</td>
<td>2</td>
<td>Item pegged to SA2</td>
</tr>
<tr>
<td>Purchase Requisition for Misc3</td>
<td>P1</td>
<td>2</td>
<td>Item pegged to SA2</td>
</tr>
</tbody>
</table>

Table 7–1 Tasks Suggested by the Planning System for Planned Orders in the Standard Environment (Page 1 of 1)

In other words, task assignment in an environment without Task Auto-Assignment revolves around the product structure (BOM) of the part being manufactured. If the user desires to separately track the procurement and actuals of item LongLT and item HiValue for the
With the Task Auto-Assignment feature, the user has a greater flexibility in designing the WBS. Apart from separating the procurement of LongLT and usage of HiValue, the usage of critical resources (Task 3.1) or costs incurred in a particular department (Task 3.2) can also be tracked. This is accomplished automatically and hence consistently for a given project. A simple example of how the user could define the WBS is shown below:

Figure 7–2 Task Assignment with Task Auto-Assignment

Figure 7–2 illustrates that task assignment with the Task Auto-Assignment feature is not restricted by (and to) the product structure. The user has the option of defining the WBS the way manufacturing activities are undertaken. This provides users with unlimited flexibility in defining their work breakdown structures.

2. Allows Cost Collection on a Much Finer Level

Task Auto-Assignment enables cost collection at a much finer level. In the standard environment, task assignment (and hence cost collection) can happen only at the WIP Job level. ALL the resource costs are charged to the task specified on the WIP Job. With Task Auto-Assignment, cost collection can be executed at the department level or even at the individual operation level. A comparison of the standard functionality and the additional functionality supplied by Task Auto-Assignment is shown below.
As indicated in the figure, Task Auto-Assignment will give the user a great deal of flexibility in cost collection. You can choose the granularity of cost collection based on the specific requirements.

3. Eliminates Manual Task Entry

In spite of adding so much flexibility and increasing the granularity of cost collection, the user can be made completely oblivious to the task assignment process. You need not worry about entering tasks on any project related transactions (Inventory/Purchasing/WIP). This eliminates all the errors associated with manual task entry.

Note: The user can choose to manually enter a task for any of the transactions. This task will not be overridden by Task Auto-Assignment.

4. Enables Standardization of Project WBS and Manufacturing Costing

The task assignment rules for material and resource transactions guide the process of task assignment. Once the rules have been defined, the process of task assignment takes place with no human intervention. This facilitates creation and maintenance of organization-wide
standards for defining Project WBS and manufacturing cost collection. This is an added advantage over all the other benefits mentioned earlier.

Examples

This section briefly describes some typical examples using the Task Auto–Assignment feature. The given list is just an indicator of things that could be accomplished with the Task Auto–Assignment feature.

1. Budget and Track Critical Resource Consumption for a Project

On many occasions it is necessary to budget and closely monitor the consumption of a critical manufacturing resource for a project. This resource could be an expensive piece of machinery, an unstable process with high rejection rates, or a resource that uses highly skilled manual labor. The Task Auto–Assignment feature allows the user to budget for and monitor these critical resources by project.

2. Collect Costs by Department

On a slightly macro scale, costs can also be collected by the manufacturing departments involved. For example, all the resource consumption in a particular department for a specific project can be made to charge to a user–specified task. This enables budgeting for projects by the individual departments involved. Simultaneously, it also enables project progress monitoring/performance evaluation by department.

3. Monitor Resource Usage for a Particular Job/Assembly

Another application of the Task Auto–Assignment feature is seen in a case where the user intends to monitor the resource usage for a particular assembly or WIP Job. The user can assign a task assignment rule for this assembly and can monitor the resource usage for that assembly or WIP Job. If there is a need to control a specific resource for a job or an assembly, that can also be accomplished using Task Auto–Assignment.

4. Track Procurement Activity

A task assignment rule that uses a Purchase Order number as one of its conditions facilitates tracking of the procurement activity for that
Purchase Order. When material is received against this Purchase Order, the value of the receipt (plus any applicable overheads) are charged to the task. This helps to monitor the progress of the procurement activity without any manual intervention. This can be used for monitoring procurement of project items that have a very long lead time or are very expensive.

5. Track Consumption of Critical Items for a Project

A task assignment rule that uses an item number as one of the criterion (with the PO field blank) can be used to track the consumption of that item for a given project. For each project, the user can define what items he/she intends to track and define the task assignment rules accordingly. This set of rules will keep a track of all the inventory transactions for that item and will keep an account of the material consumption for the project.

6. Track Usage of Items with Special Storage Requirements

Some manufacturing activities use items that require special storage requirements. Certain chemicals, liquefied gases, items stored under strict transaction control, etc. come under this class of items. If these special storage areas are defined as subinventories, the task assignment feature could be used to track the usage of these items for a project.

Whenever project material is transacted with a specified destination subinventory, Task Auto-Assignment will assign the user defined task to that transaction. Monitoring of this task will help to track the usage of such items for a given project.

Implementation Procedure

Create Project WBS (Work Breakdown Structure)
Create the WBS for your project after first determining how you want to budget and track your project expenditures.

Set Project Control Level = Project
Set the Project Control Level organization parameter to Project. This enables you to identify supply and demand orders by project only.
You can then use Task Auto-Assignment to assign tasks for the transactions.

**Setup Project Parameters**

You need to assign your project to a cost group, a default WIP accounting class, a planning group (optional), a default material task and a default resource task in the Project Parameter form. The form automatically creates a default material task assignment rule in the Material Assignment table using the default material task, and a default resource task assignment rule in the Resource Assignment table using the default resource task you specify in this window.

**Enter Material Task Assignment Rules**

Enter your task assignment rule(s) in the Material Task Assignment form. You should make sure that you enter all the rules before you start entering transactions.

*Note:* If the user desires to use PO number(s) as a part of the task assignment rule(s), the corresponding purchase order(s) has to be created before it can be entered in this form.

**Enter Resource Task Assignment Rules**

Enter your task assignment rule(s) in the Resource Task Assignment form. You should make sure that you enter all the rules before you start transactions.

*Note:* If the user desires to use WIP Job number as a part of the task assignment rule(s), the corresponding WIP Job has to be created before it could be entered in this form.

**Implementation Notes**

The Task Auto-Assignment feature brings in a lot of flexibility in defining Project WBS and collection of manufacturing costs. Given below are some key aspects that the users should be aware of while using the Task Auto-Assignment feature.
1. Coverage of the Entire Spectrum of Material and Resource Transactions is Essential

While defining the task assignment rules for a project, it is necessary that all conceivable material and resource transactions are accounted for. If this condition is not satisfied, some transactions would not be assigned a task and the costs for such transactions would not be transferred to the project. Hence, it is of critical importance that all the transactions are assigned a task. Use of a default task assignment rule can be used as safety in such cases. A default task assignment rule would collect costs for transactions that are not covered by the other task assignment rules. One default task assignment rule each for material and resource transaction should be defined.

Note: A default task assignment rule is a rule that has the project and task fields populated and all the other task assignment criteria are null.

2. Changing the Task Assignment Rules in the Middle of a Project can Distort Facts

The user has to exercise extreme caution in modifying the task assignment logic midway through a project. If transactions have taken place for the rule in question, project expenditures for that task are bound to be distorted when the logic is changed. The user has to be aware of the consequences of such a change if he decides to make it.

3. Viewing Tasks assigned by Task Auto-Assignment

The tasks assigned by Task Auto-Assignment for Inventory and Resource transactions can be viewed in the following forms:

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Form</th>
<th>Zone</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inventory Transactions: (Inventory Responsibility)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Project Inventory Transactions</td>
<td>View Material</td>
<td>Transaction Id</td>
<td>Task Number</td>
</tr>
<tr>
<td></td>
<td>Transactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Material Issue to Project WIP Job</td>
<td>View Material</td>
<td>Transaction Id</td>
<td>Source Task Number</td>
</tr>
<tr>
<td></td>
<td>Transactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Resource Transactions: (WIP Responsibility)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Project Resource Transactions</td>
<td>View Resource</td>
<td>Project</td>
<td>Task Number</td>
</tr>
<tr>
<td></td>
<td>Transactions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Viewing Errors in the Task Assignment Process

The errors in the task assignment process for material transactions could be viewed in the View Material Transactions form in the Cost Management or Inventory responsibility. The alternate zone Transaction Id has columns Error Code and Error Explanation that show the errors in the task assignment process.

Errors in the task assignment of resource transactions currently cannot be viewed.
This chapter explains using Drop Shipment functionality in a Project Manufacturing environment.
Project Drop Shipment

Overview

In Release 11, Oracle Project Manufacturing enables you to use the following drop shipment capabilities in a Project Manufacturing environment. You should be able to:

- Define an order type that has a drop-ship order cycle for use in a pure drop-ship environment in which all lines of orders using this order cycle will be drop-shipped.
- On the same sales order, combine items to be drop-shipped from a vendor with standard items to be shipped from internal inventory by using an order type that has been defined with pick release, ship confirm, and purchase release cycle actions.
- Link customer ship-to addresses defined in Order Entry with the ship to location defined in Purchasing.
- Enter project and task references on each sales order line (different projects and tasks may be entered on each line of multi-line orders).
- Import approved purchase requisitions (and subsequently autocreate purchase orders) which reflect the project and task references from the sales orders.
- Capture drop shipment receipts into a subinventory and project locator.
- See no change in on-hand quantities for the subinventory and project locator at the completion of the receipt transactions.
- Query the status of purchase orders and subsequent vendor shipping actions for orders which are being drop-shipped.
- Collect procurement costs in Oracle Projects.
Process Flow

The following process flow illustrates how drop shipments work in a Project Manufacturing environment.

1. Enter and Book Sales Order
2. Generate Purchase Requisition
3. Generate Purchase Order from the Requisition
4. Capture Purchase Order Receipts
5. Confirm there is no change in inventory
6. Confirm that Shipping is complete
7. Collect Cost in Oracle Projects
8. Generate Customer Invoice
9. Close Sales Order
## Process Steps

The following table describes the steps in processing a Drop Shipment Order in a Project Manufacturing environment.

<table>
<thead>
<tr>
<th>#</th>
<th>Step</th>
<th>Implementation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enter and book sales order.</td>
<td>If all lines of the sales order are drop–shipped, select an order type that has a drop–ship order cycle containing a purchase release cycle action, but no pick release and confirm cycle actions. The source type will be defaulted to External for orders using the Pure Drop Shipment Order cycle. If drop–ship and standard internal inventory items are combined on the same order, select an order type that has a cycle containing pick release, ship confirm, and purchase release cycle actions. Select External as the source type for the drop–ship items and Internal for an item you plan to fulfill from inventory. Verify that the Customer Address has been updated in the Customer Address Business Purpose Detail form – Internal section. The address of the drop–ship customer must also be updated in Setup Location form in Purchasing with Ship–To Site and Receiving Site checkboxes checked. You may enter a project and task for each line of the sales order.</td>
</tr>
<tr>
<td>2</td>
<td>Generate Purchase Requisition.</td>
<td>Order Entry will create requisitions for lines designated as drop shipment lines, using the ship–to address defined at the line level or order level of the sales order as the address to which a vendor must ship the items. One requisition line will be created for each sales order line. The project/task references should flow through from the sales order to the purchase requisition. You can check the Cycle Status to determine the requisition number generated by your order on the Special – Purchasing Information menu option.</td>
</tr>
<tr>
<td>3</td>
<td>Generate Purchase Order from the Requisition.</td>
<td>Requisitions will be converted to standard purchase orders. Changes a buyer makes to a standard purchase order will have to be manually communicated to the order entry personnel.</td>
</tr>
<tr>
<td>4</td>
<td>Capture Purchase Order Receipts.</td>
<td>See Oracle Purchasing User’s Guide and Oracle Order Entry/Shipping User’s Guide for detailed information on how Oracle Purchasing captures vendor drop–shipment confirmations and Oracle Order Entry’s subsequent retrieval of this information. When the vendor sends only an invoice for drop shipments, you can manually perform a logical receipt of the quantity invoiced into a subinventory and locator with project/task reference. The project and task on the receipt will be validated against the purchase order and subsequent changes are not allowed.</td>
</tr>
<tr>
<td>5</td>
<td>Confirm there is no change in Inventory.</td>
<td>The update of the shipping information on the sales order and the inventory relief from the project location should occur simultaneously. You should not see a change in the on–hand quantities for the subinventory and project location at the completion of the receipt transaction.</td>
</tr>
<tr>
<td>6</td>
<td>Confirm that shipping is complete.</td>
<td>Check for partial shipments or over–shipments to determine if additional vendor/customer communication is necessary.</td>
</tr>
<tr>
<td>7</td>
<td>Collect cost in Oracle Projects.</td>
<td>You should be able to see Commitments on the Project Status Inquiry from the time of creation of approved Purchase Requisitions through conversion of the Commitments into actual costs upon capture of the Purchase Order Receipts.</td>
</tr>
</tbody>
</table>
## Implementation Notes

<table>
<thead>
<tr>
<th>#</th>
<th>Step</th>
<th>Implementation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Generate customer invoice.</td>
<td>You use standard Order Entry or Oracle Projects invoicing functionality to invoice an order. You may need to manually apply to the customer invoice any landing or special charges the vendor may have imposed on a drop shipment.</td>
</tr>
<tr>
<td>9</td>
<td>Close sales order.</td>
<td>After fulfilling an order and generating an invoice, you close an order.</td>
</tr>
</tbody>
</table>

### See Also

- Drop Shipment, *Oracle Order Entry/Shipping User's Guide*
- Purchase Order, *Oracle Purchasing User’s Guide*
This chapter explains how to process ATO/PTO orders in a Project Manufacturing environment.
ATO/PTO in Project Manufacturing

Overview

In Release 11, Oracle Project Manufacturing enables you to process Assemble-to-Order and Pick-to-Order orders in a Project Manufacturing environment. You should be able to:

- Define optional class and model bills of material
- Setup projects and project parameters
- Forecast model or option demand by project and/or task
- Master schedule model and option by project and/or task
- Enter sales order line for a model by project and/or task
- AutoCreate configuration item
- AutoCreate final assembly orders by project and/or task
- Complete a final assembly into project inventory
- Pick release and ship confirm from project inventory
- Cost configuration item by Cost Group
- Collect costs to Oracle Projects
The following diagram illustrates the steps for an ATO/PTO process.
The following table describes the steps in processing a Assemble–to–Order (ATO) and Pick–to–Order (PTO) orders in a Project Manufacturing environment. It also provides you with the information you need to consider during implementation.

<table>
<thead>
<tr>
<th>#</th>
<th>ATO</th>
<th>PTO</th>
<th>Step</th>
<th>Description</th>
<th>Implementation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>Define optional class and model bills of material</td>
<td>Define multilevel model and option class bills to control order entry, master scheduling/MRP, work in process, and costing.</td>
<td>Since the configuration item inherits the item attributes from the ATO model item, the ATO Model item must be under Locator Control in order for the configuration item to be received into project locator. You cannot define project specific bills of material.</td>
</tr>
<tr>
<td>2</td>
<td>✓</td>
<td>✓</td>
<td>Setup a project and its project parameters</td>
<td>Setup a project. Assign the project to a planning group (optional), a cost group and a default WIP accounting class.</td>
<td>Please read Setup Project Parameters section in the Setup chapter for more information.</td>
</tr>
<tr>
<td>3</td>
<td>✓</td>
<td>✓</td>
<td>Forecast model or option demand by project and/or task</td>
<td>Forecast demand for model, options, or both by project and/or task. Explode forecasts through planning bills to models and/or options.</td>
<td>Forecast consumption by project/task is currently not supported. Use demand class instead.</td>
</tr>
<tr>
<td>4</td>
<td>✓</td>
<td>✓</td>
<td>Master schedule model and option by project and/or task</td>
<td>Master schedule models, options, or both. (Cannot master schedule Pick-to-Order models however).</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>ATO</td>
<td>PTO</td>
<td>Step</td>
<td>Description</td>
<td>Implementation Notes</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
<td>-------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>5</td>
<td>✓</td>
<td>✓</td>
<td>Enter sales order line for a model by project and/or task</td>
<td>Enter sales orders for models with options. You can enter project and/or task on a sales order line. The project and task information is cascaded down to the option lines. You can update the project and task for an option line only if it belongs to a PTO model. Please look at the table in the Project/Task Defaulting Logic for ATO/PTO options section for further detail.</td>
<td>You can enter project/task on a sales order line if Project Enabled parameter is checked for the Warehouse (organization). Oracle Order Entry provides two means by which to select configuration options: the Line Option window and Configurator window. Some fields are only available in the Line Option window, such as warehouse. Project/task information is only available in the Line Option window. If you need to update/view project/task information of the option lines, you can do so in the Line Option window.</td>
</tr>
<tr>
<td>6</td>
<td>✓</td>
<td>✓</td>
<td>AutoCreate configuration item</td>
<td>Automatically generate new item number, bill, and routing for each new sales order and link new item to sales order.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>✓</td>
<td>✓</td>
<td>AutoCreate final assembly orders by project and/or task</td>
<td>Automatically open project discrete job for each new ATO configuration order. Reserve work in process job to sales order. The project and task numbers on the project discrete job match the project and task on the sales order line for the ATO model.</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>ATO</td>
<td>PTO</td>
<td>Step</td>
<td>Description</td>
<td>Implementation Notes</td>
</tr>
<tr>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>✓</td>
<td>Complete the final assembly into project</td>
<td>Complete the configuration item to project inventory, automatically converting work in process reservation into inventory reservation. The project and task segments of the project locator must match the project and task on the sales order line for the ATO model.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>✓</td>
<td>✓</td>
<td>Pick release and ship confirm from project</td>
<td>Pick Release all configuration sales orders for which on hand quantities for the project is available. For ATO configuration item, Pick Release will pick from the project locator that has the same project and task as those on the ATO model sales order line.</td>
<td>For ATO configuration item, Pick Release will pick from the project locator that has the same project and task as those on the ATO model sales order line. For PTO options, since you can have different project/task from the project/task on the PTO Model line, Pick Release will pick from the project locator that has the same project and task as those on the option line. Pick Release will not pick from common locator.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>✓</td>
<td>confirm from project inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>✓</td>
<td>✓</td>
<td>Cost configuration item by Cost Group</td>
<td>Automatically maintain item cost by Cost Group in Weighted Average Costing environment.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>✓</td>
<td>✓</td>
<td>Collect costs in Oracle Projects</td>
<td>Material costs (material, material overhead) and WIP costs (resource, overhead, outside processing) incurred for the project will be collected in Oracle Projects.</td>
<td></td>
</tr>
</tbody>
</table>
Project/Task Defaulting Logic for ATO/PTO Options

The following table provides the detail logic of defaulting project/task information from a model line to its option lines in the Enter Sales Order form.

<table>
<thead>
<tr>
<th>Action</th>
<th>ATO</th>
<th>PTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project/Task cascading from model line to option lines?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Project/Task updatable on options lines?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Project/Task validation on option lines?</td>
<td>N/A</td>
<td>Validation of project/task against warehouse on option line</td>
</tr>
<tr>
<td>Project/Task changes on model line</td>
<td>Re–cascade change to option lines</td>
<td>Re–cascade change to option lines, discarding user inputs</td>
</tr>
</tbody>
</table>

**Note:** The following table lists the re–cascading rules for the hybrid case of an option itself being a model. The rules apply to project/task changes for the option line.

<table>
<thead>
<tr>
<th>Hybrid Case</th>
<th>Re–cascading Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATO model within PTO model</td>
<td>Re–cascade the project/task from the ATO model option line to the whole ATO sub–configuration.</td>
</tr>
<tr>
<td>PTO model within PTO model</td>
<td>No re–cascading. Users can manually update the project/task on the option lines of the sub–model.</td>
</tr>
</tbody>
</table>

Other Implementation Notes

**ATP by Project**

ATP by project is not supported currently. Use demand class instead.
See Also

Project MRP: page 5 – 2
Project Manufacturing Costing, Oracle Cost Management User’s Guide
Line Options and the Configurator, Oracle Order Entry/Shipping User’s Guide
Project, Oracle Projects User’s Guide
This chapter explains quality collection in a Project Manufacturing environment.
Project Quality Collection

Overview

Oracle Quality is an integrated quality management application designed to support the diverse data collection needs of discrete, repetitive, assemble-to-order, and batch process manufacturers. Oracle Quality helps you manage and distribute critical quality information throughout your organization.

Oracle Project Manufacturing enables you to use these capabilities in a Project Manufacturing environment. You should be able to:

- Define collection plans that include project and task as collection elements.
- Define actions and notifications specifically for project and task collection elements.
- Define item, customer or supplier type specifications specific to a project.
- Collect quality data including project and task collection elements.
- Analyze and report quality data based on a project and task.
Process Flow

Quality Process Flow

1. Define Collection Elements
2. Create specifications? (Yes/No)
   - Yes: Define Specifications
   - No: Define Collection Plans
3. Collect Results data
4. Analyze and Report Results
The following paragraphs describe each of the above steps in using Oracle Quality. The following example will be used to illustrate each step in the process.

**Example**

**Collection Plan**

- Transactions
- Specifications
- Quality Collection Elements
  - Project Number
  - Task
  - PO Number
  - PO Line Number
  - Quantity
  - Supplier
  - Defect Code
  - Disposition code
  - Project Manager
  - Thickness

**Actions**

- Action Rules:
  - If Collection Element: Project Number = 1
    - Then Assign a Value to collection element Project Manager = Lisa'

- Action Rules:
  - If Collection Element: Project Number = 2
    - Then Assign a Value to collection element Project Manager = Tom'

- Action Rules:
  - If Collection Element: Thickness > Upper specification
    - Then Send electronic mail notification to Project Manager.
Collection Elements

Collection elements in Oracle Quality determine what data to collect and report. You can define an unlimited number of collection elements for attributes such as defect, disposition, severity, cause, pass/fail results, or for variables such as voltage, resistance, temperature, or acidity. A third group, reference information collection elements, reference database objects defined in other Oracle Applications – examples are Item, PO Number, Job, or Quantity. Project and task are among the reference collection elements now supported in Oracle Quality.

In our example, collection elements are Project Number, Task, Item, PO Number, PO Line Number, Quantity, Supplier, Thickness, Defect Code, Disposition Code, and Project Manager. Collection Element Project Manager will be populated based on the value you enter for Project Number. This can be done by using the Assign a Value Action for the collection element Project Number.

Specifications

Specifications describe the requirements of a product and can be created for items, suppliers, and customers. You can define specification limits for key characteristics of the products you produce or material you receive from suppliers. You can create item specifications by assigning a group of collection elements and their specification limits to items or categories of items. You can also create supplier specifications for items you receive from specific suppliers. Finally, you can create customer specifications specific to the product standards expected by customers. These three types of specifications help ensure that the goods you produce conform to your quality engineering standards and to your customers’ quality standards. To provide more detail and flexibility, specification subtypes and specification elements are also provided.

In our example, item specification type will be used. For each specification which will be used for this collection plan, Item = A.

Specification Subtypes are used to create more granular specifications. For example, if a different but similar supplier specification is required when a supplier ships from one location versus another, you can use specification subtypes to ensure that the correct specification is applied.

In Project Manufacturing, specification subtypes can be used to effectively create project specific requirements. While defining a specification you should use Project Number as the collection element in the specification subtype field. This allows you to create multiple
specifications for the same item/supplier/customer specification with the Project Number as additional criteria.

In our example, while defining specifications for item A for the collection element *thickness*, you could have 2 different projects that have slightly different acceptance criteria. Project #1 allows you to accept items which have a thickness range of .050 – .100 inches (specification range). Project #2 has a tighter range and allows only .055 – .080 inches (specification range). You can now create Specification 1 for Item A, and specification subtype = Project #1 and Specification 2 for Item A, specification subtype = Project #2 with the corresponding specification limits. While using these specifications in data collection, you can find the correct specification using the Project Number as a search criteria.

*Specification elements* are the building blocks of specifications. Specification elements can be any data type but would most typically be numeric. You create specification elements by adding collection elements to your specifications. As you create specification elements, the specification limits, if any, are defaulted from the source (collection element). Specification limits include an acceptable target value as well as user-defined, reasonable, and specification range limits. The specification limits of a specification element can be updated as required.

In our example, the specification element is thickness, with the lower and upper spec limits for Specification 1 being .050 and .100. Lower and Upper Spec limits for Specification 2 would be .055 and .080.

**Collection Plans**

*Collection plans* determine what data to collect, where to collect it, when to collect it, and what action to take based on the data. Collection plans are similar to test or inspection plans. You can define an unlimited number of collection plans. Within each collection plan, you specify collection elements such as defect types, symptoms, causes, actions, critical measurements, as well as reference information like project and task number, item, lot number, supplier and customer. You should specify Project Number and task as mandatory collection elements – this will enable you to analyze and report your collected quality data by project and task.

Collection plans can be invoked manually for direct results entry. You can do this in the Quality Responsibility by using the Enter Quality Results forms and using the appropriate collection plan. They can also be automatically invoked as you enter transactions in other Oracle Applications. You can do this by setting up collection triggers based on
the transactions such as Move Transactions (Oracle Work in Process), Receiving Transactions (Oracle Purchasing), Inspection Transactions (Oracle Purchasing) and Service Requests (Oracle Service) supported by Oracle Quality. Collection triggers are events or conditions that a transaction must satisfy before quality data collection is invoked. Collection elements that can be used to trigger these transactions are referred to as context elements and available in the list of values for each transaction type. Project and task are not context elements and hence cannot be used to trigger Quality data collection.
Attachments: You can attach illustrative or explanatory files — in the form of text, images, word processing documents, spreadsheets and video to collection plans. In a Project Manufacturing environment, attachments can be used to document instructions specific to a project or groups of projects. They can be viewed by operations personnel during quality data collection.

Actions: As you collect quality data, actions can be invoked. You can assign actions and action rules to collection elements. As quality data is collected, results values are used in the evaluation of action rules associated with collection plan elements. When an action rule is found to be true, the action associated with that action rule is invoked.

Actions are either specific to an Oracle Applications product, and act upon database objects associated with that product, or they are non-product specific. Example of Application specific actions could be putting a job on hold, a supplier on hold. Examples of non-product specific actions could be a message to the operator, an alert action.

Alert actions supported by Oracle Quality include sending an electronic mail notification, executing a SQL script, executing an operating system script and launching a concurrent request. You can dynamically distribute mail messages by including output variables in the recipient fields.

Attention: See Oracle Quality User’s Guide for additional details on setting up Alerts.

In our example, the collection plan will use Receiving Inspection transaction type. The data collection will be setup as Mandatory and Enabled to allow for data collection on line. The collection plan will use Item Specification type. Collection elements will include Project Number, Task, Item, PO Number, PO Line Number, Quantity, Supplier, Thickness, Defect Code, Disposition Code, and Project Manager.

Project Number and task will be used as mandatory collection elements to allow for data collection and analysis/reporting by project. Project Manager collection element will be populated based on the Project Number collection element. Collection element thickness will be associated with a spec limit and an email notification will be sent to the specific Project Manager (listed in the collection element Project Manager) when the value for thickness is not to spec limits on a Purchase order line item. The collection plan will only be triggered as part of a Receiving Inspection transaction, when Item =A (trigger element).
Data Collection

You can enter quality results into the quality data repository directly, as you transact in other Oracle Manufacturing Applications, or using Collection Import. While entering data, you can find specifications associated with a collection plan. If a specification type has been associated with the collection plan selected, you are prompted to find and select a specification of that type as you enter quality results. You can select a specification from the list of values or by entering search criteria – this could include Project Number, Serial Number etc.

In our example, when you perform a Receiving Inspection transaction for Item=A, you will be required to complete the quality data before you can commit your receiving transaction. The collection plan can be invoked from the Special Menu or from the Quality Button. Since multiple specifications are associated with this collection plan, you will have to select the appropriate specification to be used. This selection can be done by entering the Project Number in the spec subtype as your search criteria. Based on the Project Number, the appropriate specification limits will be listed in the collection plan for the collection element thickness. When the values for thickness are exceeded – email notification will be sent to the specific Project Manager as setup in the collection plan.

Analyze and Report Results

Oracle Quality provides you with powerful inquiries that enable you to quickly find quality results. You can define your own selection criteria based on collection elements used in the collection plan. You can view quality results using on-line, ad hoc queries and through printed reports.

In our example, if you have a data collection plan for receiving inspection for Item A you can view failure results that are specific to a project. Since the collection plan was setup for Item=A, the specific Project Number can be used as selection criteria in the results analysis and reporting.

See Also

Oracle Quality User’s Guide
Chapter 11

Supply Chain Projects

This chapter explains how to use Supply Chain Planning for multi-org projects in a Project Manufacturing environment.
Supply Chain Projects

Overview

Supply Chain Projects combines the robust features of Oracle Supply Chain Planning (SCP) and Oracle Project Manufacturing into a powerful tool that integrates project manufacturing and distribution into a single planning process. With Oracle SCP, you can generate plans that include the entire supply chain. In a single step you can schedule and plan material and distribution requirements for multiple organizations, or centrally plan the entire enterprise. You can also include customer and supplier inventories in the SCP process. Common material requirements can be included if desired.

Oracle SCP lets you plan finished products, as well as intermediate assemblies and purchased items, for all facilities in your supply chain. Material plans for feeder plants and distribution centers automatically consider requirements originating from any number of other facilities. You can load planned order demand from multiple using–organizations into the master schedule of supplying organizations.

Release to Oracle’s Purchasing and Work in Process applications permits multi–organizational execution of procurement and manufacturing plans for the project. Oracle’s Purchasing and Order Entry applications provide the vehicle for moving supply between multiple organizations. Procurement, manufacturing, and distribution activity is always visible to SCP. Cost transactions incurred across multiple organizations can be accumulated to a single project.

Major Features

Along with the other features found in the Oracle Applications, Supply Chain Projects in Release 11 also allows you to accomplish the following project–oriented activities:

- Determine a sourcing strategy for your project supply chain and apply it to all your items.
- Simultaneously plan project and common material requirements of multiple organizations in your supply chain.
Supply Chain Projects

- Use the Supply Chain Planner Workbench to analyze project-specific supply and demand records across multiple organizations.
- Consider project-specific supply and demand from customer and supplier inventories in your material plans.
- View project-oriented exception messages for a consolidated supply chain material plan.
- Initiate project-specific inter-organization supply via internal requisitions and internal sales orders.
- Collect all project related material, resource and overhead costs via Oracle Projects.

_WARNING_ Use of Supply Chain Projects assumes a thorough knowledge of Oracle Supply Chain Planning, Order Entry, Purchasing, Inventory, Costing and other Project Manufacturing features. It also assumes a complete setup of all necessary inter-organization relationships within these applications. For more information on these applications, see their respective User’s Guides.
Process Flow

The following are the major steps necessary for successful execution of Supply Chain Projects:

**Attention:** The steps below reflect the basic flow, however, individuals steps may be executed in a different sequence than those listed. Depending upon the individual scenario, some steps may be executed several times before executing another or some steps may be omitted completely.

<table>
<thead>
<tr>
<th>#</th>
<th>Step</th>
<th>Description</th>
<th>Implementation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GENERAL</td>
<td>Supply Chain Projects is only supported within a given Set of Books.</td>
<td>Supply Chain Projects is only supported for those organizations that reside within a given Set of Books.</td>
</tr>
<tr>
<td>2</td>
<td>SET UP PROJECT–SPECIFIC DATA</td>
<td>Set up Project Control Level within Organization Parameters</td>
<td>It is advised that the Project Control Level be the same within each of the organizations to be used in the supply chain. Otherwise, unpredictable and/or confusing results may be experienced in the plan as supply and demand for different control levels cross organizational boundaries.</td>
</tr>
<tr>
<td>3</td>
<td>Define Project and any related budgets and agreements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Define project specific cost groups to maintain item cost by project.</td>
<td>Ensure that a cost group is completely defined for each organization to be used in the supply chain.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Although the Cost Group can be set as multi-org, the set up of account numbers and default WIP Accounting Class must be accomplished for each organization.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Link Cost Group, WIP Accounting Class and Project</td>
<td></td>
<td>Ensure that these links are set for each organization to be used in the supply chain.</td>
</tr>
<tr>
<td>6</td>
<td>SET UP SUPPLY CHAIN</td>
<td>Create all necessary DRP, MDS, MPS and/or MRP names and related data.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Create all necessary Sourcing Rules and related Assignment Sets for inter-organization demand and/or specific vendors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>EXECUTE SUPPLY CHAIN PLANNING</td>
<td>Ensure that all appropriate Sales Orders are entered.</td>
<td>If desired, a Sales Order demand class can be established to represent a project or group of projects and then added to the Sales Order. Load/Copy/Merge of Sales Orders to MDS/MPS can be restricted to a specific demand class (i.e. project).</td>
</tr>
<tr>
<td>9</td>
<td>Load/Copy/Merge data to appropriate MDS and/or MPS plan(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Step</td>
<td>Description</td>
<td>Implementation Notes</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>Launch the appropriate plan(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>REVIEW AND MANAGE PLAN(S).</td>
<td>Manage exception messages.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Release appropriate Work Orders.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Release appropriate Purchase Requisitions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Release appropriate Internal Requisitions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>INITIATE INTERNAL SUPPLY ORDERS</td>
<td>Import internal requisitions for the Destination Organization.</td>
<td>Internal requisitions are NOT included in Project Commitments.</td>
</tr>
<tr>
<td>16</td>
<td>Create internal sales orders for the Source Organization.</td>
<td>In order for Internal Sales Orders to be visible to the Supply Chain plan, they must be included in the MDS or MPS via Load/Copy/merge.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>PROCURE MATERIALS</td>
<td>Create purchase orders to vendors.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Receive purchase orders from vendors to component inventory.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>MANUFACTURE SUB–ASSEMBLIES</td>
<td>Issue project and common materials to WIP.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Apply resources and appropriate overheads.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Execute any outside processing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Complete to sub–assembly inventory.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>EXECUTE INTERORGANIZATION TRANSFERS</td>
<td>Ship internal sales orders from the Source Organization.</td>
<td>Direct transfers between organizations (i.e. NOT utilizing In–Transit) are not available for Project Manufacturing materials.</td>
</tr>
<tr>
<td>24</td>
<td>Receive internal requisitions to appropriate inventory of the Destination Organization.</td>
<td>Upon receipt by the Destination Organization, all elemental costs are combined into a single MATERIAL cost.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>MANUFACTURE FINAL ASSEMBLIES</td>
<td>Essentially the same steps as 19–22 above. Complete to appropriate inventory.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>SHIP ASSEMBLIES</td>
<td>Ship the completed assemblies to customer(s) and/or appropriate distribution points.</td>
<td></td>
</tr>
</tbody>
</table>
# Implementation Notes

<table>
<thead>
<tr>
<th>#</th>
<th>Step</th>
<th>Description</th>
<th>Implementation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>COLLECT AND ANALYZE PROJECT COSTS</td>
<td>Collect costs from each organization</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td></td>
<td>Analyze costs via Oracle Projects.</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>INVOICE CUSTOMER</td>
<td>If appropriate, interface Project costs and invoice customer.</td>
<td></td>
</tr>
</tbody>
</table>

## Simple Example

**Assembly/Component**

<table>
<thead>
<tr>
<th>Assembly/Component</th>
<th>Sourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Produced in Organization #1</td>
</tr>
<tr>
<td>B</td>
<td>Purchased from Vendor #1</td>
</tr>
<tr>
<td>C</td>
<td>Internally acquired from Organization #2</td>
</tr>
<tr>
<td></td>
<td>Produced in Organization #2</td>
</tr>
<tr>
<td>Assembly/Component</td>
<td>Sourcing</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>D</td>
<td>Purchased from Vendor #2</td>
</tr>
<tr>
<td>E</td>
<td>Purchased from Vendor #3</td>
</tr>
</tbody>
</table>
This chapter outlines the steps required to close accounting periods in a Project Manufacturing environment.
Period Close in Project Manufacturing

Overview

Closing an Accounting Period can be a very time consuming task. This section provides the steps necessary to perform a period close in a Project Manufacturing environment. It is a high level overview and will reference numerous other documents. The referenced documents contain necessary and more detailed information on the steps required to close each Oracle Application. By referencing these documents you can be assured that you are getting the most detailed information possible.

Closing Order for Period Close

<table>
<thead>
<tr>
<th>Close Order</th>
<th>Application</th>
<th>Oracle Document Reference/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oracle Payables (AP)</td>
<td>See: Closing an Accounting Period, Oracle Payables User’s Guide.</td>
</tr>
<tr>
<td>5</td>
<td>Oracle Inventory (INV)</td>
<td>See: Cost Control and Accounting, Oracle Inventory User’s Guide.</td>
</tr>
<tr>
<td>8</td>
<td>Other Non-Oracle Data feeds</td>
<td>(If applicable – payroll, fixed assets, etc.)</td>
</tr>
</tbody>
</table>
Preliminary Checklist for Period Close

Oracle Applications should be closed in the order indicated above. Keep in mind that multiple steps are required to perform period close on each application. The following table lists some of the important steps but it is not meant to be exhaustive. Do not follow only these steps or you may encounter problems. Remember to open the next period after closing the current period unless otherwise indicated. See the Oracle Documents referenced above for further information.

<table>
<thead>
<tr>
<th>Close Order</th>
<th>Application</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oracle Payables (AP)</td>
<td>Interface supplier invoice adjustments and expense reports from Project Accounting.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approve all invoices (run AutoApproval).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print, review and resolve posting holds report.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confirm payment batches.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run unposted invoice sweep and correct entries –(DON’T Sweep).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Review amounts to transfer to GL.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transfer invoices and payments.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run Sweep and do Sweep.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run and reconcile AP Trial Balance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Move unresolved postings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Close AP period.</td>
</tr>
</tbody>
</table>

* Oracle Order Entry and Oracle Work in Process do not have periods to close, but certain actions should be performed within these applications to foster a smoother period close.
<table>
<thead>
<tr>
<th>Close Order</th>
<th>Application</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Oracle Purchasing (PO)</td>
<td>Ensure all receiving transactions have been entered.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run uninvoiced receipts report and review (after AP transactions have successfully posted to GL).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run PPV and IPV reports and review.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run receipt accruals – period end process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Import Accrual Batches from Purchasing into GL.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run accrual rebuild reconciliation report and review.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Correct all errors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Close PO period.</td>
</tr>
<tr>
<td>3</td>
<td>Order Entry (OE)</td>
<td>Ensure all sales order transactions have been entered and interfaced to Oracle Inventory.</td>
</tr>
<tr>
<td></td>
<td>* Not an actual close</td>
<td>Ensure all sales order transactions have been entered and interface to AR for sales account tracking.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(sales order transactions include ship confirm and drop shipments)</td>
</tr>
<tr>
<td>4</td>
<td>Oracle Work in Process (WIP)</td>
<td>Ensure WIP/Move, Pending Move, WIP/Resource, Pending Resource, etc., transactions have all been processed successfully.</td>
</tr>
<tr>
<td></td>
<td>* Not an actual close</td>
<td>Ensure all WIP Jobs have been closed that should be closed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ensure all appropriate material has been issued, received, adjusted, etc.</td>
</tr>
<tr>
<td>Close Order</td>
<td>Application</td>
<td>Activity</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 5           | Oracle Inventory (INV)              | Ensure all appropriate material has been issued, received, adjusted, etc.  
Execute Cost Collector (Project Cost Transfer).  
Execute PA Transaction Import (resolve errors).  
Update PA Project Summary amounts.  
Ensure Open Interface Table is empty (resolve errors).  
Ensure Cost Management interfaces do not have pending transactions (Material and Resource).  
Transfer all Inventory transactions to the GL by organization.  
Ensure all Inventory and WIP accounts have been reconciled on the GL.  
Open next Inventory Period.  
Close the Inventory Period (this will automatically submit a transfer to GL process).  
Reconcile Inventory and WIP accounts to ledger.  
Note/Hint: The GL transfer can be run before period close as many times as desired. |
| 6           | Oracle Projects (PA)                | Transfer vendor invoices from Oracle Payables (after AP transactions have successfully posted to GL).  
Transfer invoices to Oracle Receivables.  
Generate Draft Revenue for all projects.  
Run journal import and ensure all costs & revenue are properly accounted for between PA and GL.  
Correct all errors (rerun import if necessary).  
Change PA period statuses.  
Note: Do not post adjustments to the GL for cost and revenue distribution lines. Post them in PA and transfer them to the GL. |
| 7           | Oracle Accounts Receivable (AR)     | Verify final transfer from PA was successful.  
Correct any errors on invoices, journals, etc.  
Run GL interface.  
Post in GL.  
Close AR period.  
Run aging report and reconcile. |
## Close Order Application Activity

<table>
<thead>
<tr>
<th>Close Order</th>
<th>Application</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Other Non-Oracle Data feeds</td>
<td>(if applicable – payroll, fixed assets, etc.)</td>
</tr>
<tr>
<td>9 (last)</td>
<td>Oracle General Ledger (GL)</td>
<td>This is closed last.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Verify all journals have been imported.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Verify all journals have been posted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run Trial Balance Summary report.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Run Posted Journals report.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Close GL period.</td>
</tr>
</tbody>
</table>

### Implementation Notes

If PA Transaction Import rejects any transactions, it will reject the entire *batch* of transactions.
Using Project Manufacturing without Oracle Projects

It is not necessary to use Oracle Projects to achieve Project Manufacturing capabilities. Seiban manufacturing, for example, uses distinct numbers to manage manufacturing activities, without references to tasks and without using cost collection.

This chapter describes the use of Project Manufacturing without installing Oracle Projects.
Use Project Manufacturing without Oracle Projects

Overview

Oracle Project Manufacturing provides you with the capability to define a reference number and link demand and supply entities to this reference number in Oracle Order Entry, Oracle Purchasing, Oracle Master Scheduling/MRP, Oracle Work In Process and Oracle Inventory, Oracle Quality.

You can use this reference number for contract number, Seiban number (Japan & Korea) or some other identifier that you would like to attach to your purchase order, inventory, work order, etc. The way you link this reference number to demand and supply entities is the same as you link a project number.

The following diagram shows that you first setup the reference number. Then you can reference this number throughout the various products just like you would reference a project number if you use Oracle Projects.

Note: The difference between using the reference number and project number is that you can not collect cost by reference number as you can by project.
The following paragraph highlights the setup steps you need to pay attention to when you operate in this environment.

**Setup**

- The Project Control level in the Organization Parameters window is set to Project.
- Project Cost Collection in the Organization Parameters window must NOT be enabled.
- Project numbers are defined in Seiban Number form in Oracle Project Manufacturing, not in Oracle Projects.
- No tasks are associated with the project numbers.

**Note:** For more information on the Seiban form, refer to the *Oracle Project Manufacturing User’s Guide.*

**Costing**

Because the Project Cost Collection Organization Parameter is not enabled, you can use either Weighted Average Costing or Standard Costing.
Seiban Manufacturing

Seiban is a Japanese word, meaning production number. Seiban manufacturing is a technique used in Japan and Korea to manage the manufacturing processes from production planning, procurement and shop floor control to inventory management through the use of Seiban numbers. The requirements largely overlap with the project manufacturing requirements and hence the Oracle Project Manufacturing solution satisfies the needs of both Seiban Manufacturing and Project Manufacturing.

The above diagram illustrates the use of Seiban numbers within Oracle Manufacturing. The process is very similar to Project Manufacturing.

**Note:** Cost Collection by Seiban number is not supported.

The following paragraph highlights the setup steps you need to pay attention when you operate in the Seiban environment:

**Setup**

In a Seiban Manufacturing environment, Seiban numbers are associated with supply and demand and are used to manage manufacturing activities.

Seiban numbers are used in the same way as project numbers with the following exceptions:
• Seiban numbers are defined in the Seiban Number form in Oracle Project Manufacturing, not in Oracle Projects.

• No tasks are associated with Seiban numbers.

• The Project Control level in the Organization Parameters window is set to Project.

• Project Cost Collection in the Organization Parameters window must NOT be enabled.

**Costing**

Because the Project Cost Collection Organization Parameter is not enabled, Seiban Manufacturing can use either Standard or Average Costing.

**Products**

You will need Oracle Inventory, Oracle Order Entry, Oracle WIP, Oracle Master Scheduling/MRP, Oracle Purchasing, Oracle Cost Management, and Oracle Bills of Material for the Seiban solution.

You do not need Oracle Projects.

**See Also**

*Oracle Project Manufacturing User’s Guide*
Glossary

**common locator**  A locator flexfield without project or task segment values. A common locator represents a physical location.

**cost element**  A classification for the cost of an item, including material, material overhead, resource, outside processing, and overhead.

**cost group**  An attribute of a project which allows the system to hold item unit costs at a level below the inventory organization. Within an organization, an item may have more than one cost if it belongs to multiple cost groups. Item costing can be specific to a single project if each project has a distinct cost group, or specific to a group of projects if all projects in that group are assigned to the same cost group.

**cost sub–element**  A subdivision of cost element. You can define unlimited cost sub–elements for each cost element.

**expenditure organization**  For timecards and expense reports, the organization to which the incurring employee is assigned, unless overridden by organization overrides. For usage, supplier invoices, and purchasing commitments, the incurring organization entered on the expenditure.

**expenditure type**  An implementation–defined classification of cost that you assign to each expenditure item. Expenditure types are grouped into cost groups (expenditure categories) and revenue groups (revenue categories).

**planning group**  A grouping mechanism that allows you to group multiple projects for planning and netting purposes. Projects within the same planning group can share supply.

**project**  A unit of work that can be broken down into one or more tasks. A project is the unit of work for which you specify revenue and billing methods, invoice formats, a managing organization and project manager, and bill rate schedules. You can charge costs to a project, and you can generate and maintain revenue, invoice, unbilled receivable, and unearned revenue information for a project.

**project blanket release**  An actual order of goods and services with a project and task reference against a blanket purchase agreement.

**Project Drop Shipment**  A process of having the supplier provide the items directly to your customer for a project or task. The sales order is linked to a project and task. The purchase requisition is linked to the same project and task. The procurement cost is collected in Oracle Projects.

**Project Inventory**  Inventory owned by a project and task. You can segregate inventory by project using project locators.

**project job**  A standard or non–standard WIP discrete job with a project and task reference.
**project locator**  A locator with project and task segment values. A project locator is a logical partition of a physical location by project and task.

**Project Manufacturing**  A type of manufacturing environment where production requirements are driven by large projects. You can plan, schedule, process, and cost against a specific project or a group of projects. If Oracle Project Manufacturing is installed and the Project References Enabled and Project Control Level parameters are set in the Organization Parameters window in Oracle Inventory, you can assign project and, if required, task references to sales orders, planned orders, jobs, requisitions, purchase orders, and other entities within Oracle Manufacturing. If the Project Cost Collection Enabled parameter is also set, you can collect and transfer manufacturing cost to Oracle Projects.

**Project Manufacturing Costing**  A series of features in Project Manufacturing designed to support manufacturing costing in a project manufacturing environment. Project Manufacturing Costing allows you to track item cost by project or a group of projects, and transfer project related manufacturing transaction costs to Oracle Projects.

**Project MRP**  A series of features in Project Manufacturing designed to support manufacturing planning processes in a project manufacturing environment. Project MRP allows you to segment all sources of supply and demand by project and task. This allows the planning process to net and plan supply by project and task.

**project purchase order**  A purchase order with a project and task reference.

**project requisition**  A requisition with a project and task reference.

**project sales order**  A sales order with a project and task reference.

**project work order–less completion**  A WIP transaction that you can complete assemblies for a project and task without referencing a job or repetitive schedule. Project work order–less completion automatically backflushes all operation pull, assembly pull, and push components from project locators for hard pegged components and from common locators for non-hard pegged components.

**Seiban manufacturing**  A type of manufacturing environment where demand and supply are identified by Seiban numbers to peg supply to demand. This numbering system is widely used in Japan and Korea.

**Seiban number**  An abbreviation for a manufacturing number in Japan and Korea. It is the key production control number for all manufacturing entities including sales order, planned order, requisition, purchase order, and discrete job.

**soft pegging**  A pegging item attribute value. You can peg supply to demand for items with soft pegging.

**task**  A subdivision of project work. Each project can have a set of top level tasks and a hierarchy of subtasks below each top level task. See also work breakdown structure.
**WIP accounting class**  A set of accounts that you use to charge the production of an assembly. You assign accounting classes to discrete jobs and repetitive schedules. Each accounting class includes distribution accounts and variance accounts. WIP accounting class is also used in cost reporting.

**work breakdown structure**  The breakdown of project work into tasks. These tasks can be broken down further into subtasks, or hierarchical units of work.
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