

# JD Edwards EnterpriseOne Applications

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## **Engineer to Order Implementation Guide**

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# Preface

Welcome to the JD Edwards EnterpriseOne documentation.

## Documentation Accessibility

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## Access to Oracle Support

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## Related Information

For additional information about JD Edwards EnterpriseOne applications, features, content, and training, visit the JD Edwards EnterpriseOne pages on the JD Edwards Resource Library located at:

<http://learnjde.com>

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>Bold</b>	Boldface type indicates graphical user interface elements associated with an action or terms defined in text or the glossary.
<i>Italics</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<b>Monospace</b>	Monospace type indicates commands within a paragraph, URLs, code examples, text that appears on a screen, or text that you enter.
<b>&gt; Oracle by Example</b>	Indicates a link to an Oracle by Example (OBE). OBEs provide hands-on, step-by-step instructions, including screen captures that guide you through a process using your own environment. Access to OBEs requires a valid Oracle account.



# 1 Introduction to JD Edwards EnterpriseOne Engineer to Order

## JD Edwards EnterpriseOne Engineer to Order Overview

JD Edwards EnterpriseOne Engineer to Order from Oracle enables companies whose business consists of engineer-to-order and make-to-order projects to increase the profitability of the projects that they run, improve efficiency, and leverage relevant data that they possess. JD Edwards EnterpriseOne Engineer to Order (ETO) accomplishes these goals by enabling you to perform these tasks:

- Review and track detail information about projects.
- Schedule project tasks.
- Review up-to-date costing information.

**Note:** The JD Edwards EnterpriseOne Engineer to Order system supports discrete manufacturing only.

## JD Edwards EnterpriseOne Engineer to Order Integrations

The information in this section provides an overview of the features from other systems that support JD Edwards EnterpriseOne Engineer to Order.

## JD Edwards EnterpriseOne Inventory Management

Use Oracle's JD Edwards EnterpriseOne Inventory Management to define inventory items. This information enables you to work with inventory throughout the supply chain. You can define items as project-specific to distinguish them from general inventory.

## JD Edwards EnterpriseOne Product Data Management

Use Oracle's JD Edwards EnterpriseOne Product Data Management to set up manufacturing information that you need for completing manufacturing project tasks. Examples of this information include:

- Bills of material
- Work centers
- Routings
- Product costing information
- Engineering change management

JD Edwards EnterpriseOne Product Data Management is also the system that you use to manage critical information for capacity and material planning.

## JD Edwards EnterpriseOne Shop Floor Management

Use Oracle's JD Edwards EnterpriseOne Shop Floor Management to process the discrete manufacturing work orders that you created for the project, issue material, complete work orders, and report the time and effort that is required to produce a project item.

## JD Edwards EnterpriseOne Requirements Planning

Use Oracle's JD Edwards EnterpriseOne Requirements Planning to determine information about on-hand inventory quantities and demand that is current, and forecast:

- Product sales or replacement parts.
- Interbranch inventory needs.
- Parts requirements for equipment and plant maintenance.
- Incoming item availability from purchase orders or shop floor production.

## JD Edwards EnterpriseOne Job Cost

Use JD Edwards EnterpriseOne Job Cost from Oracle to manage project and jobs and to monitor the costs and revenues that are associated with them. You can use the JD Edwards EnterpriseOne Job Cost system to perform these tasks:

- Create and maintain cost code structures for the jobs.
- Create a cost breakdown structure (CBS) to match the work breakdown structure.
- Establish budgets for jobs.
- Track and manage the costs and revenues that are associated with projects and jobs.
- Perform profitability analysis.
- Use contract and service billing.

The JD Edwards EnterpriseOne Job Cost system is also referred to as Oracle's JD Edwards EnterpriseOne Project Costing product. Use JD Edwards EnterpriseOne Project Costing to provide in-depth visibility to all project costs and billing to improve performance.

## JD Edwards EnterpriseOne Capital Asset Management

Use Oracle's JD Edwards EnterpriseOne Capital Asset Management to maintain and service equipment. This system helps you reduce downtime and repair costs, increase productivity, and improve product quality. You can track the revenue, cost, and utilization of the assets, and you can use workflow alerts to plan and resolve issues before they become emergencies.



## JD Edwards EnterpriseOne Quality Management

Use Oracle's JD Edwards EnterpriseOne Quality Management to enter and manage data that relates to the material quality of the items that you produce as part of the project. You can record quality test results in a consistent, controlled manner and monitor production processes to ensure product quality.

## JD Edwards EnterpriseOne Sales Order Management

Use Oracle's JD Edwards EnterpriseOne Sales Order Management to:

- Create the sales order for the project.
- Maintain customer and item preference profiles.
- Track sales order lines.

## JD Edwards EnterpriseOne Procurement

Use the JD Edwards EnterpriseOne Procurement system from Oracle to track a diverse range of purchasing activities for:

- Replenishing inventory.
- Acquiring materials that are used to complete projects.
- Charging purchased goods and services to specific departments, jobs, or cost centers.

## JD Edwards EnterpriseOne Contract and Service Billing

If you use JD Edwards EnterpriseOne Job Cost for engineer-to-order projects, you can also use the JD Edwards EnterpriseOne Contract and Service Billing system from Oracle to bill customers for services and goods that are rendered as part of the project. This system offers a suite of features to accommodate interdivisional and customer billing. You can use the JD Edwards EnterpriseOne Contract and Service Billing system to:

- Account for the costs of goods and services.
- Mark up the costs to account for profit.
- Bill for the services and goods that you provide.
- Provide written proof that justifies the charges.
- Create accounting entries for the services and goods.

# JD Edwards EnterpriseOne Engineer to Order Implementation

This section provides an overview of the steps that are required to implement the JD Edwards EnterpriseOne Engineer to Order system.

In the planning phase of the implementation, take advantage of all JD Edwards EnterpriseOne sources of information, including the installation guides and troubleshooting information.

When determining which electronic software updates (ESUs) to install for JD Edwards EnterpriseOne Engineer to Order, use the EnterpriseOne and World Change Assistant. EnterpriseOne and World Change Assistant, a Java-based tool, reduces the time required to search and download ESUs by 75 percent or more and enables you to install multiple ESUs at one time.

See [JD Edwards EnterpriseOne Tools Software Updates Guide](#) .

## Global Implementation Steps

This table lists the suggested global implementation steps for the JD Edwards EnterpriseOne Engineer to Order system:

- Set up global user-defined code (UDC) tables.  
See ["Working with User Defined Codes in the JD Edwards EnterpriseOne Tools Runtime Administration Guide"](#) .
- Set up fiscal date patterns, companies, and business units.  
See ["Setting Up Organizations" in the JD Edwards EnterpriseOne Applications Financial Management Fundamentals Implementation Guide](#) .
- Set up system next numbers.  
See ["Setting Up Next Numbers" in the JD Edwards EnterpriseOne Applications Financial Management Fundamentals Implementation Guide](#) .
- Set up accounts.  
See ["Creating the Chart of Accounts" in the JD Edwards EnterpriseOne Applications Financial Management Fundamentals Implementation Guide](#) .
- Set up general accounting constants.  
See ["Setting Up the General Accounting System, Setting Up Constants for General Accounting" in the JD Edwards EnterpriseOne Applications General Accounting Implementation Guide](#) .
- Set up multicurrency processing, including currency codes and exchange rates.  
See ["Setting Up General Accounting for Multicurrency Processing" in the JD Edwards EnterpriseOne Applications Multicurrency Processing Implementation Guide](#) .
- Set up ledger type rules.  
See ["Setting Up the General Accounting System, Setting Up Ledger Types for General Accounting" in the JD Edwards EnterpriseOne Applications General Accounting Implementation Guide](#) .
- Enter address book records.

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- See *"Entering Address Book Records" in the JD Edwards EnterpriseOne Applications Address Book Implementation Guide* .
  - Set up default location and printers.
    - See *"Working with Report Printing Administration" in the JD Edwards EnterpriseOne Tools Report Printing Administration Technologies Guide* .
  - Set up branch/plant constants.
    - See *"Entering Item Information, Entering Branch, Plant Information" in the JD Edwards EnterpriseOne Applications Inventory Management Implementation Guide* .
  - Set up manufacturing and distribution automatic accounting instructions (AAIs).
    - See *"Setting Up the Inventory Management System, Setting Up AAIs in Distribution Systems" in the JD Edwards EnterpriseOne Applications Inventory Management Implementation Guide* .
  - Set up document types.
    - See *"Setting Up the Inventory Management System, Setting Up Document Type Information" in the JD Edwards EnterpriseOne Applications Inventory Management Implementation Guide* .
  - Set up shop floor calendars.
    - See *"Setting Up Shop Floor Management, Setting Up Shop Floor Calendars" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide* .
  - Set up manufacturing constants.
    - See *"Setting Up Product Data Management, Setting Up Manufacturing Constants" in the JD Edwards EnterpriseOne Applications Product Data Management Implementation Guide* .

## Engineer To Order Implementation Steps

This table lists the suggested application-specific implementation steps for JD Edwards EnterpriseOne Engineer to Order:

- Set up Engineer to Order user-defined codes.
  - See *Setting Up UDCs for ETO*.
- Set up project items.
  - See *"Entering Item Information" in the JD Edwards EnterpriseOne Applications Inventory Management Implementation Guide* .
- Set up product costs.
  - See *"Setting Up Product Costing and Manufacturing Accounting, Defining Cost Methods and Item Costs" in the JD Edwards EnterpriseOne Applications Product Costing and Manufacturing Implementation Guide* .
- Set up cost and account classifications.
  - See *Setting Up Cost and Account Classifications*.

- Set up job cost integration.

See *Setting Up Job Cost Integration*.

# 2 Understanding Engineer to Order

## Engineer to Order System

JD Edwards EnterpriseOne Engineer to Order enables companies whose business consists of engineer-to-order and make-to-order projects to increase the profitability of the projects that they run, improve efficiency, and leverage relevant data that they possess. The JD Edwards EnterpriseOne Engineer to Order system accomplishes these goals by enabling you to:

- Review and track detail information about projects.
- Schedule project tasks.
- Review up-to-date costing information.

In addition, JD Edwards EnterpriseOne Engineer to Order is fully integrated with the supply chain execution applications for efficient project execution.

**Note:** The JD Edwards EnterpriseOne Engineer to Order system supports discrete manufacturing only.

JD Edwards EnterpriseOne Engineer to Order functions in the context of generally accepted project-management practices and strategies. The system provides information and mechanisms to move a project through these four phases that are commonly associated with projects:

- Project initiation
- Project planning
- Project execution
- Project close

## Project Initiation Phase

During the project initiation phase, you analyze the request for a quote that is sent in by the customer, estimate the scope of the project, and define project information, such as work breakdown structure, task schedules, estimated cost, and so on, that is sufficient to provide the customer with a quote.

## Project Planning Phase

During the project planning phase, which begins after the customer accepts the quote, you refine the project scope, as well as the task, schedule, resource, and financial information that is associated with the project. For example, you assign resources to tasks and perform financial and inventory commitments to fulfill work order requirements. At the end of the planning phase, you establish the project baseline.

## Project Execution Phase

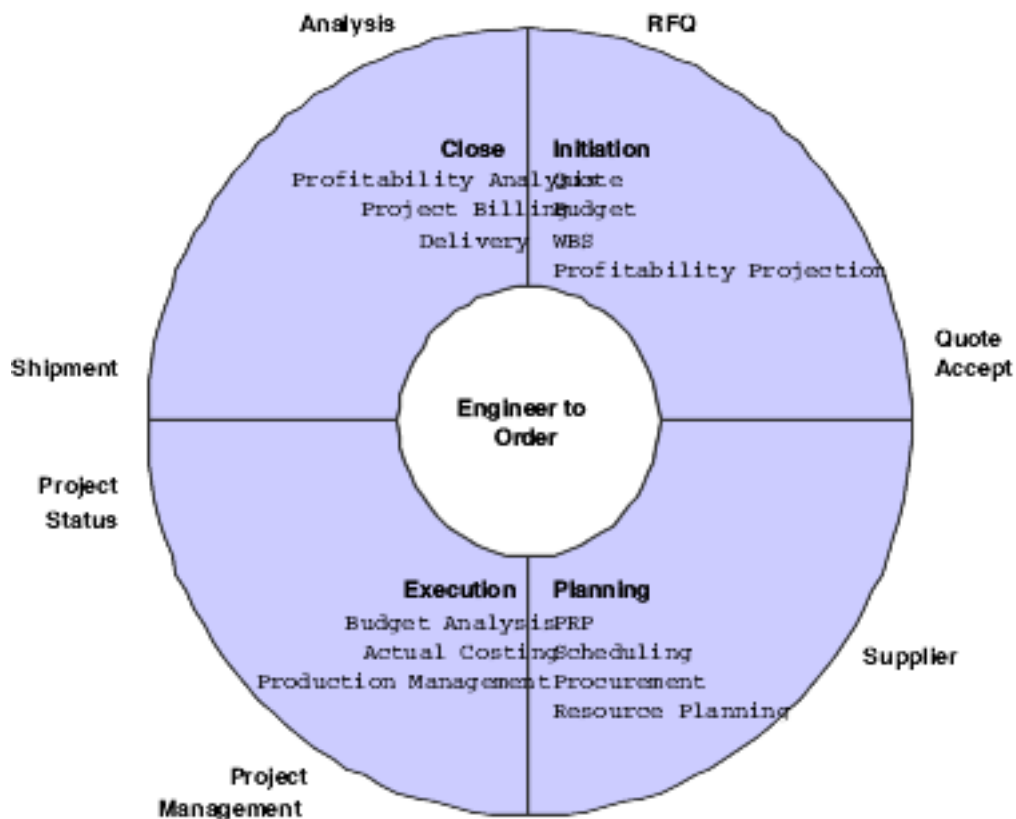
After you complete the planning and freeze the budgeted amounts, the project moves into the execution and control phase. In this phase, you complete the scheduled project tasks and measure project progress and performance to be able to take corrective action if the project does not progress as planned.

## Project Close Phase

The project close phase consists of close-out activities that are related to tasks and product shipments, asset capitalization, and final reporting.

## Project Life Cycle

This diagram provides an overview of the different stages that a project typically goes through:



## Engineer to Order System Features

To help you create and execute large-scale projects, JD Edwards EnterpriseOne Engineer to Order provides these features, which enable you to complete the different tasks that are involved in managing a project:

Feature	Description
Project costing and budgeting	You can create and maintain cost amounts for projects that are created and initiated. Cost estimates are uploaded to the budgeted amount for a project when a quote is accepted. You can also set up budgets for projects to track cost overages.
Project quotes	You can formulate a quote to send to prospective customers, providing an estimate of the price for the item or series of items for which the customer has requested a quote.
Project proposals	You can create documentation pertaining to the product that has been requested, and the customer can review the documentation.
Project materials plan	You can suggest ordering requirements for project materials and give visibility to the supply and demand that is created by the project's activities.
Project schedules and reports	You can develop and maintain a timeline within which all project activities can be tracked for on-time delivery of the end item for the project.
Project alerts	You can provide alerts to the project manager when a project is not meeting scheduling, cost, and inventory requirements.

## Engineer to Order Tables

Because JD Edwards EnterpriseOne Engineer to Order integrates with many JD Edwards EnterpriseOne systems, you use the tables in these other systems when you create and work with engineer to order (ETO) projects. For example, you use the Work Order Master table (F4801) to store project header and task information. In addition, you also store project information in tables that are specific to JD Edwards EnterpriseOne Engineer to Order:

Table	Description
Project Attributes (F31P01)	This table stores information that is entered for the project header, such as status information and the processing settings for a project.
Project Quote Header (F31P10)	This table stores the header information for the quote that is related to the project, such as the version and the number of the customer for whom the quote is created.

Table	Description
Project Quote Detail (F31P11)	This table stores the detail lines from the work breakdown structure that you chose to include in the quote, with the margin percent value and quote amount for each line.
Task Dependencies (F31P12)	This table stores the task dependencies that you establish between the tasks on the work breakdown structure, including the lag time between tasks.
Cost Classification Table (F31P21)	This table stores the cost type and account mappings that are required to correctly roll up cost information for a project.
Scheduling Error Report (F31PUI01)	This table is a work file that stores the scheduled dates created and deleted when the Project Workbench program (P31P001) is used to schedule.
List of Records Locked (F31PUI02)	This table is a work file that stores record reservation details created and deleted when the Project Workbench program (P31P001) is viewed in the Edit Tasks or Edit and Lock All Tasks mode.
Project Commitment Detail Table (F410211)	This table stores project-specific inventory commitments. These records are deleted when the commitment is relieved.
Related Order Cross Reference Table (F4080)	This table stores order information that the system uses to link the project descriptive task to the related orders. This table contains the descriptive task-order number and order type, and detail information from the related orders, such as document type, extended costs, and order status.
Work Order ETO Tag File (F4801T1)	This is a tag table to table F4801 that is used only for ETO. For every record in table F4801 that is associated with a project (PRJM not blank), the system creates a corresponding record in the F4801T1 table.



# 3 Setting Up Engineer to Order

## Understanding Engineer to Order Setup

To use JD Edwards EnterpriseOne Engineer to Order, you must set up information that the system needs to process various project components correctly. JD Edwards EnterpriseOne Engineer to Order setup includes UDCs and other required information, such as document type constants. To be able to roll up project costs correctly, you also must set up project-specific items, as well as a cost classification scheme.

If you use features of JD Edwards EnterpriseOne Project Costing for a project, you also must create job-master and chart-of-account information for the project.

To facilitate project communication with individuals who do not have access to the Project Workbench program (P31P001), you can set up a process for exporting project information to Microsoft Project.

This section discusses:

- Task types for ETO projects.
- Project-specific material.
- Line type and line type constants for ETO.

See *"Setting Up Product Data Management, Defining Document Type Constants for Work Orders" in the JD Edwards EnterpriseOne Applications Product Data Management Implementation Guide*.

## Task Types for ETO Projects

JD Edwards EnterpriseOne Engineer to Order enables you to use several different task types as part of the work breakdown structure. Each task type represents a different type of activity that is related to the project that might require different actions on the part of the project manager and responsible project employees. You can use only task types that are set up in the Document Type Maintenance program (P40040).

JD Edwards EnterpriseOne Engineer to Order includes two categories of tasks: production and nonproduction tasks. Nonproduction tasks include summary or detail tasks, equipment orders, and service orders. Production tasks consist of discrete manufacturing work orders that you use to build something. Production tasks are always associated with an item, whereas item numbers are optional for nonproduction tasks. All tasks in a work breakdown structure are work-order master records that are stored in the Work Order Master Table (F4801).

The task type also determines how the cost roll-up is set up and performed. For production tasks, costs are mapped by cost type and are stored in the Production Cost table (F3102). For nonproduction tasks, costs are mapped by account and are stored in the Account Ledger table (F0911).

## Project-Specific Material

When you work with ETO projects, you must be able to distinguish the material that you purchase or produce for the project from general inventory. If you do not define the items that you use for the project as project specific, you might experience difficulties in terms of project supplies. Defining project-specific material enables you to:

- Maintain project-specific inventory commitments.

- Recognize end items as project specific at completion.
- Perform project-specific financial commitments.

You do not have to setup all inventory as project-specific inventory. Only items that are critical to the project should be setup as project-specific. You use material requirements planning to plan all items that are used across various projects.

You define project-specific items by assigning them one of two codes from the Stocking Type Code UDC table (41/I) when you set up the item in the Item Branch/Plant program (P41026). The system currently provides two predefined codes: G (for items that are manufactured for a project) and H (for items that are purchased for a project). Both codes include a special handling code of P to indicate that items that are set up with these two stocking types are treated as project specific by the system. For planning purposes, the Description 2 field contains the code that indicates whether the item should be purchased or manufactured.

**Note:**

- *"Entering Item Information, Entering Branch, Plant Information" in the JD Edwards EnterpriseOne Applications Inventory Management Implementation Guide .*

## Line Type and Line Type Constants for ETO

In addition to defining items as project specific by assigning them a specific stocking type, you also set up project-specific items with a line type that enables you to maintain financial commitments for items that are used in projects. When you set up project-specific items in the Item Branch/Plant program (P41026), you assign them a line type that is defined with an inventory interface of C. You set up the inventory interface along with other line type constants for the line type in the Line Type Constants program (P40205).

This inventory interface enables you to make financial commitments for stock items. Inventory Interface C combines the features of inventory interface Y (Inventory) with A (GL Account) and B (GL Account and Non-Stock). The ability to create financial commitments enables the project manager to calculate projected final cost by using the JD Edwards EnterpriseOne Job Cost system.

**Note:** To make financial commitments, you must define commitment document types in the Commitment Document Type UDC table (40/CT).

You can also select the Call Materials Issue option for the line type to enable the system to automatically issue material that is purchased for a work order upon receipt of the material.

See *"Setting Up the Procurement System, Defining Order Line Types" in the JD Edwards EnterpriseOne Applications Procurement Management Implementation Guide .*

## Prerequisite

Define document type constants.

See *"Setting Up Product Data Management, Defining Document Type Constants for Work Orders" in the JD Edwards EnterpriseOne Applications Product Data Management Implementation Guide .*

## Setting Up UDCs for ETO

JD Edwards EnterpriseOne from Oracle provides these UDC tables, which enable you to define engineer-to-order processes according to specifications that are derived from the business environment:

UDC	Description
Order Type (48/OT)	This table enables you to distinguish each work order record in the Work Order Master table (F4801) from other records with different work order types. For example, you do not use the same document type and work order type to represent both an equipment work order and a manufacturing work order.
Cost Classification (31P/CC)	This table lists the cost buckets that are used in the Project Workbench program (P31P001) to categorize the costs that are stored in the Production Cost (F3102) and Account Ledger (F0911) tables for visibility and rollup in the work breakdown structure for a project.
Project Quote Status (31P/QP)	This table provides the definitions of the statuses that the system uses to track the progress of the different quote versions that you create when you generate a proposal for a customer. The system provides five quote statuses that are hard-coded.
Project Quote Inactive Reason Code (31P/RC)	This table lists reasons why quotes are set to an inactive status.
Task Dependency Type (31P/DT)	This table lists the standard task dependency types that you can use to establish dependencies between the tasks on the work breakdown structure.
Stocking Type Code (41/I)	This table lists the stocking types that you assign to items in the Item Master program (P4101). You use the stocking type code to designate an item as project specific.
Commitment Document Types (40/CT)	This table lists the document types that are considered for financial commitments.
Project Accounting (31P/AI)	This table lists the automatic accounting instructions (AAIs) that are set to enable project accounting.
Project Billing Method (31P/PB)	This table lists the available project billing methods that you can select for the project on the Add/Revise Project form.
Distribution Requirements Planning (34/DR)	This table lists project-specific quantity types for distribution requirements planning (DRP).
DRP Unadjusted (34/DU)	This table lists project-specific quantity types for unadjusted DRP.
Electronic Mail Boxes (02/MB)	This table includes electronic mailboxes for project notifications.
Inventory Interface (H40/IV)	This table includes inventory interface C to enable financial commitments for projects with a Job Cost interface.

UDC	Description
Maintenance Material Planning (34/MM)	This table lists project-specific quantity types for material maintenance planning.
Master Production Schedule (34/MS)	This table lists project-specific quantity types for master production scheduling (MPS).
Plant Maintenance Management (34/PM)	This table lists project-specific quantity types for plant maintenance management.
Material Requirements Planning (34/MR)	This table lists project-specific quantity types for material requirements planning (MRP).
Quantity Type (34/QT)	This table lists project-specific quantity types for supply and demand.
Resource Assignment Level (48/RL)	This table specifies whether resource assignments are at the level of the work order or the work-order labor detail, based on the document type of the work order. To make assignments at the labor detail level, you must use this UDC table to specify the work order document type. You use resource assignments UDC 48/RL for equipment and service orders only. UDC 48/RL is not used for manufacturing work orders.

## Setting Up Cost and Account Classifications

This section provides an overview of cost and account classifications and discusses how to:

- Set processing options for Cost Classification (P31P301).
- Set up cost classifications.
- Set up account classifications.

## Understanding Cost and Account Classifications

One of the most important priorities for a project manager is the ability to control the costs that are associated with a project. To maintain control of the budget, the project manager must be able to review the actual costs that are reported for any project task at any point in time throughout the project life cycle. The actual costs must be associated with the same cost buckets that are available for the estimated costs so that the project manager can compare the estimated, budgeted, or planned costs with the actual costs at any stage of the project. In addition, mapping costs to the correct cost buckets enables the system to roll up costs for each level of detail to the next parent level in the work breakdown structure and to the project level. Examples of cost buckets that are used in the Project Workbench program (P31P001) are labor, material, other, and special. You set up these cost buckets as UDCs in the Cost Classification UDC table (31P/CC).

The Cost Classification program (P31P301) enables you to map costs to cost buckets either by cost type or by account number. These options accommodate the fact that a project can contain two types of tasks: production tasks, such as discrete manufacturing work orders, and nonproduction tasks, such as project management tasks, travel, and so on. You can retrieve the actual costs that are associated with production tasks from the Production Cost table (F3102), where they are stored by cost type. The costs that are associated with nonproduction tasks are stored in the Account Ledger table (F0911). Therefore, you must associate the appropriate accounts with the user-defined cost buckets to make costs for nonproduction tasks visible to a project manager and roll them up to higher levels in the project structure.

You can define cost type and account mappings for one of these combinations:

- Branch/plant and project number of a particular project.
- Branch/plant of a project, where the project number is blank.
- All branch/plants and projects (both fields remain blank).

The previous list defines the hierarchy that the system uses to retrieve the correct categories for displaying costs in the Project Workbench program and for rolling up actual costs. This information is stored in the Cost Classification table (F31P21).

## Forms Used to Set Up Cost and Account Classifications

Form Name	FormID	Navigation	Usage
Work with Cost Types Work with Account Numbers	W31P301A	Cost Classification (G31P31), Cost Classification	Locate and review cost types or accounts.
Revise Cost Types	W31P301B	Click the Add button on the Work with Cost Types form.	Set up cost classifications.
Revise Account Numbers	W31P301B	Click the Add button on the Work with Account Numbers form.	Set up account classifications.  <b>Note:</b> Set the processing options to display the account number or cost type form.

## Setting Processing Options for Cost Classification (P31P301)

This processing option controls default processing for the Cost Classification program.

### Defaults

This processing option controls whether you can work with cost types or with account numbers when using this program.

#### 1. Default View

Specify how the system displays the program. Values are:

Blank or **1:** Cost Type.

**2:** Account Number.

## Setting Up Cost Classifications

Access the Revise Cost Types form.

### Cost Type

Enter a code that designates each element of cost for an item. Examples of the cost object types are:

- A:** Purchased raw material.
- B1:** Direct labor routing rollup.
- B2:** Setup labor routing rollup.
- C1:** Variable burden routing rollup.
- C2:** Fixed burden routing rollup.
- Dx:** Outside operation routing rollup.
- Xx:** Extra add-ons, such as electricity and water.

The optional add-on computations usually operate with the type Xx (extra add-ons). This cost structure enables you to use an unlimited number of cost components to calculate alternative cost rollups. The system then associates these cost components with one of six user-defined summary cost buckets.

### Cost Classification

Select a value from the Cost Classification UDC table (31P/CC) to associate cost types or account numbers with cost buckets, such as material costs, labor costs, other costs, or special costs. Correct cost classification ensures that costs are rolled up into the correct cost bucket in the Project Workbench program (P31P001).

## Setting Up Account Classifications

Access the Revise Account Numbers form.

To display the Revise Account Numbers form, you must set the processing option for the Cost Classification program (P31P301) to display the program by account, rather than cost type.

## Setting Up Job Cost Integration

This section provides an overview of Job Cost integration, lists a prerequisite, and discusses how to add a chart of accounts for a project.

## Understanding Job Cost Integration

Depending on the company's business requirements, you can select to integrate the JD Edwards EnterpriseOne Job Cost system with JD Edwards EnterpriseOne Engineer to Order. You can use the features of JD Edwards EnterpriseOne Job Cost to perform profitability analysis and to use the service and contract billing features that you can access from the JD Edwards EnterpriseOne Job Cost system. Using the JD Edwards EnterpriseOne Job Cost and JD Edwards

EnterpriseOne Engineer to Order systems together might be particularly beneficial in a complex manufacturing environment that includes long-term projects.

You need JD Edwards EnterpriseOne Job Cost integration to perform financial commitments for manufacturing work orders. To make financial commitments for manufacturing work orders, you must set up the manufacturing work order document type in the Commitment Document Types UDC table (40/CT).

To enable project-specific accounting, you use the Special Handling Code field in the Project Accounting UDC table (31P/AI) to set up these AAls to include project-specific accounts:

- 3110 (Inventory/Raw Material)
- 3120 (Work in Process)
- 3130 (Subassembly/Finished Goods)
- 3140 (Project Contra)
- 4310 (Inventory)
- 4315 (Non-Inventory)

To activate the JD Edwards EnterpriseOne Job Cost system when you set up the attributes for a project, you select the Interface to Job Cost option in the project attributes. To use the features of the JD Edwards EnterpriseOne Job Cost system, you must define a GL class code. Next, you must create a record in the Extended Job Master table (F5108). The business unit from the extended job master record becomes the default business unit for the project header and tasks. You must add a chart of accounts that provides the subsidiary accounts that you assign to the project and the tasks. If job cost integration is activated, each task in the work breakdown structure requires a subsidiary.

**Note:** If you set the processing option for creating a job master record, the system automatically calls the Job Cost Master Revisions program (P51006) as you are adding or copying a project.

## Chart of Accounts

To add a chart of accounts, you use the Job Cost Code Structures program (P51091). Instead of adding the chart of accounts interactively, you can set a processing option to copy the chart of accounts from another record. In this case, you must specify the source (chart of accounts or job) and the name of the chart or job from which to copy the chart-of-account information.

After you add the chart of accounts, you assign subsidiary accounts to the ETO project and tasks. You can use the Subsidiary field to enter the desired subsidiary account for a task. You can also set a processing option to copy subsidiaries from a parent task to all its child tasks.

**Note:**

- *"Setting Up Jobs" in the JD Edwards EnterpriseOne Applications Job Cost Implementation Guide*

## Prerequisite

To copy the chart of accounts in the background, use the processing options for the Project Workbench program (P31P001) to select either a chart of accounts or a job as the copy source for the job.

## Forms Used to Set Up Job Cost Integration

Form Name	FormID	Navigation	Usage
Search for Projects	W31P001B	Project Workbench (G31P12), Project Workbench	Locate the project for which you want to set up job cost integration.
Add/Revise Project	W31P011A	Select <b>Attributes</b> from the More Row Actions field and select >> on the Search for Projects form.	Specify integration with Job Cost.
Copy Cost Codes	W51091J	Select Copy Chart of Acc from the Form menu on the Add/Revise Project form.	Add a chart of accounts for a project by specifying the name of the chart of accounts or job from which to copy chart-of-account information.

## Adding a Chart of Accounts for a Project

Access the Copy Cost Codes form.

### Chart Type

Enter the chart of account type to copy to the job for the project.

**Note:** If you specify in the processing options that the copy source is a job, this field appears with the label Job, and you select the job from which to copy cost codes.

### Job

Select the job or business unit to which you want to copy cost codes for the selected project.

### Cost Code From and Cost Code Thru (cost code through)

Define the range of subsidiary accounts to copy to the project. The system uses this information to determine cost allocation.

### Cost Type From and Cost Type Thru (cost type through)

Define the range of object accounts for the project.

### Level of Detail

Specify the level of detail for the project accounts. The system uses this value to summarize and classify the accounts in the general ledger.



## Integrating ETO with Microsoft Project

This section provides an overview of the ETO export and import process and discusses how to:

- Set processing options for Export to MS-Project (R31P404) and Import from MS-Project (R31P801).
- Export ETO project information to Microsoft Project.
- Import ETO project information from Microsoft Project.

## Understanding the ETO Export and Import Process

When working with JD Edwards EnterpriseOne Engineer to Order, you can use Microsoft Project to take advantage of some of the features of that program that complement ETO features. You can export the work breakdown structure (WBS) that you created in the Project Workbench program (P31P001) to a Microsoft Project file. After you export the WBS, you can use the graphical features that are provided by Microsoft Project, such as Gantt charts, PERT diagrams, and so on, to represent project information in a more visual format. You can make changes to the Microsoft Project file to perform what-if analyses without affecting the original WBS. Finally, you can also share the exported project information with an audience that might not have access to the project information in the Project Workbench program.

## Setting Processing Options for Export to MS-Project (R31P404) and Import from MS-Project (R31P801)

These processing options control default processing for the MS Project Import and Export programs.

### Process

These processing options control how the system moves files between JD Edwards EnterpriseOne Engineer to Order and Microsoft Project.

#### 1. Name and Path of the flat file

Specify the name of the flat file. This includes the directory path where the flat file exists.

(Ex. C: \Project.csv)

#### 2. Date Format

Specify the format of a date as it is stored in the database. The date format that you specify in the processing option must match the system date format. The date format in the MS Project file should also match the system date format.

For JD Edwards EnterpriseOne programs, these date formats are valid: YMD, MDY, DMY, EMD. If you leave this field blank, the system displays dates based on the settings of the operating system on the workstation. In Microsoft Windows NT, the regional settings in the Control Panel control the settings for the operating system of the workstation.

## Exporting ETO Project Information to Microsoft Project

Select MS Project Integration (G31P13), Export to MS-Project.

When you export project information, the system creates a comma-delimited flat file (.csv) that contains all of the fields in the Work Order Master table (F4801) for all of the task records in the WBS. The system saves the flat file to the location that you specified in the processing options for the Export to MS-Project program (R31P404).

To ensure that the export runs successfully, you must define this information in MS Project:

1. Open MS Project, name a project file, and save it with a Microsoft Excel Workbook filetype.
2. Click the Save button to display the Export Mapping form.
3. Click the New Map button on the Selective Data tab.
4. Enter a name for the import/export map on the Define Import/Export Map form.
5. On the Options tab, verify these selections and values:
  - o Tasks option in the Data to import/export group box.
  - o Export header row/Import includes headers in the Microsoft Excel options group box.
  - o Text delimited value of '!.

When you open the flat file in Microsoft Project, the system prompts you to map flat file fields to corresponding fields in the Microsoft Project file that you want to create. For the integration to work properly, you must map these fields to the corresponding Microsoft Project fields:

Flat File	Microsoft Project	Comment
SEQN	Unique ID	The system uses the task sequence field to determine the Microsoft Project task ID.
DLO1	Name	In Microsoft Project, all tasks must be named.
STRT	Start	This field is required to create a Gantt chart.
DRQJ	Finish	This field is required to create a Gantt chart.
Successors	Successors	This field is required to display task links in Microsoft Project.
Outline Level	Outline Level	This field is required to display parent/child relationships in Microsoft Project.

Flat File	Microsoft Project	Comment
DOCO	Text01	This field is required to import information from Microsoft Project.
DCTO	Text02	This field is required to import information from Microsoft Project.
PARS	Text03	This field is required to import information from Microsoft Project.

All other fields are optional. Save the export mappings.

## Importing ETO Project Information from Microsoft Project

Select MS Project Integration (G31P13), Import from MS-Project.

To be able to re-import the Microsoft Project file back to the Project Workbench program, you must correctly map the files as defined in the table in the previous section. JD Edwards EnterpriseOne Engineer to Order provides a Microsoft Project template that includes a standard mapping.

After you set up the project in Microsoft Project, you can make changes as needed and communicate the information to others. When you save the file, you save it as a .csv file and select the same mapping that you used for importing the flat file into Microsoft Project. The resulting .csv file contains all of the fields that are listed in the mapping specification.

**Note:** The inbound import capability is limited.

When working with the project in Microsoft Project, you must apply these rules to be able to import the project file back to the Project Workbench program successfully:

- You cannot add tasks to or delete tasks from the WBS.  
 The system enables you to import records that you originally exported back to the Project Workbench program.
- You cannot change some fields.  
 For example, you can update the Quantity Completed field in the F4801 table only by running the Work Order Inventory Completions program (P31114).
- You must express the lag time for dependencies in days.

After you make changes, you can import the .csv file back to the Project Workbench program. You use a processing option for the Import from MS-Project program to specify the location of the flat file that you are importing.

**Note:** When you export project information to a flat file to be read by Microsoft Project, you must specify the location of the flat file. Depending on the operating system and server, you can specify the location of a file in various ways. For example, in a UNIX environment, the flat file is a binary file, and the directory structure is different from the folder structure in a Microsoft Windows environment.

## Guidelines

To run the export and import process smoothly, use a Microsoft Windows-based file system to specify the path and the file name, mainly because Microsoft Project works best in Microsoft Windows.

Other setup might include setting the date format on the workstation to be consistent with the processing options for the Export to MS-Project and Import from MS-Project programs.

# 4 Using Project Planning with Engineer to Order

## Understanding Project Planning with ETO

Typically, the project planning phase begins after the customer accepts the project quote and you run the Accept Quote process for the project. The project planning phase consists of all of the activities that are required to convert the project information into a plan to be carried out during the project execution and control phase. During the initiation phase of a project, not all of the detailed information for tasks, work orders, schedules, resources, and budgets may be required or available. During the planning phase of a project, the project manager can refine the project information. You can enter transactions for the project tasks and make financial and inventory commitments either before or after you run the Accept Quote process.

**Note:** The system automatically creates financial commitments for purchased items, provided that the line type is set up to do so and the document type is included in the Commitment Document Types user-defined code (UDC) (40/CT). To create financial commitments for a manufacturing work order, you must select the Interface to Job Cost option for the project.

If you use job cost integration, the system uploads the project planned costs from the Project Workbench form to the job cost original budget during the Accept Quote process.

You can run the MRP/MPS Requirements Planning program (R3482), based on the task information on the work breakdown structure, to generate the detail messages that the system uses to generate purchase orders and work orders for replenishment. You can create purchase orders manually for items on a parts list. You can also create purchase orders for items that are not consumed by a manufacturing work order on the project, but that are sold to the customer as part of the project.

If you select the Interface to Job Cost option in the project attributes and then run the Accept Quote process, you can continue to refine and plan the project information. You can proceed to the next project stage by selecting Freeze JC Budget from the Form menu. As a result, the planned amounts from the work breakout structure are loaded into the original budget one last time, and the budget total is frozen.

**Note:** Project activities are frequently iterative and do not necessarily proceed in the sequence that is documented here.

## Prerequisites

Select the Interface to Job Cost option for the project to use the features of the JD Edwards EnterpriseOne Job Cost system and create financial commitments for manufacturing work orders.

# Loading Project Budgets to the Job Cost Budget

This section provides an overview of the Upload to Job Cost Budget Process and discusses how to:

- Set processing options for Upload Job Cost Budgets (R31P800).
- Upload job cost budgets.

## Understanding the Upload to Job Cost Budget Process

You use this program to upload planned costs from the Project Workbench program (P31P001) to the JD Edwards EnterpriseOne Job Cost system. You can launch the program from the menu any time after the quote is accepted to synchronize the Job Cost budget information with the cost information from the project. During two phases of the life of the project, the Project Workbench program runs this program automatically. At the Quote Accept phase, the planned costs for the project are uploaded as the original budget. At the Freeze Cost Budget phase, the original budget is uploaded one final time if you set the processing option to upload the original budget. When the job cost budget is locked, you can use the Upload Job Cost Budgets program (R31P800) only to upload revisions.

## Setting Processing Options for Upload Job Cost Budgets (R31P800)

These processing options control default processing for the Upload Job Cost Budgets program.

### Display

This processing option controls which information the report displays.

#### 1. Display Inactive Accounts

Specify whether to display the inactive accounts in a range of accounts. Values are:

Blank: Do not display

1: Display

### Edits

These processing options control which information to include in the report.

#### 1. Default Cost Code Range

Enter the from cost code and through cost code.

##### From Cost Code

Specify whether to display the beginning cost code (subsidiary) account in a range of accounts. Leave this range blank to include all accounts.

##### Thru Cost Code (through cost code)

Specify whether to display the ending cost code (subsidiary) account in a range of accounts. Leave this range blank to include all accounts.

#### 2. Default Cost Type Range

Enter the from cost type and through cost type.

### **From Cost Type**

Specify whether to display the beginning cost type (object) account in a range of accounts.

### **Thru Cost Type (through cost type)**

Specify whether to display the ending cost type (object) account in a range of accounts.

### **3. Specify Lowest Account Level of Detail (3 - 9)**

Specify the lowest account level of detail for summarizing and classifying accounts in the general ledger. Level 9 is the most detailed and Level 1 is the least detailed. Levels 1 and 2 are reserved for company and business unit totals. Levels 8 and 9 are reserved for job cost posting accounts in JD Edwards EnterpriseOne Project Costing.

## Process

These processing options specify how the system processes the budget information.

### **1. Mode**

Specify whether to run the program in proof mode or in final mode. If you run the program in proof mode, the system generates a report, but does not update any tables. Values are:

**1:** Final

Blank: Proof

### **2. Budget Amount Ledger Type**

Specify the budget amount ledger type to update. If you leave this processing option blank, the system automatically updates ledger type JA.

### **3. Job Cost Revisions Bypass GL Date Editing**

Specify whether to bypass general ledger (GL) date editing. If the system does not edit the GL date, you can enter a later or earlier GL date without receiving error messages or warnings. Values are:

Blank: Do not bypass

**1:** Bypass

### **4. Job Cost Original Budget Update**

Specify which years to update. F0902 records must exist for options 2 and blank. Values are:

**1:** Update current year only

**2:** Update all years

Blank: Update current and future years

### **5. Document Type**

Specify the document type that is required as part of the key to automatic accounting instruction (AAI) table 3130 (Sub-Assembly/Finished Goods). The default document type is IC (inventory completion). The other key components (company, GL class code, and order type) come from the project. Use this AAI to retrieve the object account that is needed for the job cost upload.

## Audit Trail

These processing options control the upload of budget revisions.

### **1. Document Type**

Specify the document type that is required as part of the key to AAI table 3130 (Sub-Assembly/Finished Goods).

## 2. Job Cost Budget Audit Trail Creation

Specify what type of Account Ledger detail records (F0911) the system creates when you enter budget revisions. You should have the system create an F0911 record for each change unless pace limitations exist. Values are:

Blank: Create one audit trail record per period change.

**1:** Create an audit trail record for each change.

**2:** Do not create audit trail records.

## 3. Reference Number

Enter a number that provides an audit trail for specific transactions, such as an asset number, a supplier number, or a document number.

## 4. Override Explanation

Provide a description, remark, explanation, name, or address.

# Uploading Job Cost Budgets (Release 9.2 Update)

Select Periodic Processing (G31P20), Upload Job Cost Budgets.

To load and update job cost budgets, you use AAI 3130 (Subassembly/Finished Goods). This AAI maps the planned costs from the Project Workbench program to the JD Edwards EnterpriseOne Job Cost system.

**Note:** The document type that you specify in the processing options must match the document type in the AAI.

To run this batch program, you must select the Interface to Job Cost option in the project attributes; otherwise, the system issues an error message. You can run this program in proof mode to compare the job cost budget to the changes that you applied to the project. When you run the program in final mode, the system updates the Job Cost tables with the budget changes.

If the Update Projected Final Ledger by Subledger/Subledger Type check box is selected for a job that is used by Engineer To Order system and you run the R31P800 program, the system updates the subledger/subledger type with projected final amounts for the job in the F0902 table, where the subledger is the work order number and subledger type is W.

### Note:

- See *"Extended Job Master" in the JD Edwards EnterpriseOne Applications Job Cost Implementation Guide* .

# Performing Project Requirements Planning

This section provides an overview of project requirements planning (PRP), lists prerequisites, and discusses how to:

- Generate a multiplant requirements plan for a project.
- Process messages for multiplant PRP.
- Review supply and demand for multiplant PRP.



## Understanding PRP

Project Requirements Planning is an option within the MRP/MPS Requirements Planning program (R3482) that you use to generate replenishment schedules for components that are used to produce a project item.

PRP recognizes the shippable items from the project as the supply of the end item and uses this supply to drive the demand for its components. Thus, the project supplies its own demand.

The dependent demand is generated by the bill of material (BOM) structure or by the work order parts list that is associated with the end items. Inventory that is acquired either by purchase order receipts or work order completions for these project-specific items should be used only for meeting the project's demand.

Project demand and supply is regarded as standalone or independent so that any additional demand or supply from forecasts, sales orders, work orders, or purchase orders on that end item does not interfere with the requirement from the project.

### Setup Considerations for PRP

To successfully plan a project by running the MRP/MPS Requirements Planning program for projects, you must verify certain system setup information.

In the Item Master program (P4101), the stocking type for project-specific items is defined with a special handling code of P for project. PRP uses the stocking type to denote that the item is specific to a project.

**Note:** An item cannot be identified as both a project-specific and a standard item within the same branch/plant. For multilevel bills of material, when an item is identified as a project-specific item, all parent items in the hierarchy, including the end item, should also be project-specific items. Otherwise, the originating order requirements (pegging records) cannot be linked.

PRP uses the low-level code to identify the lowest level at which an item resides in a bill of material structure. The low-level code is assigned to an item when the item is added to a manufacturing BOM. An item can reside on a manufacturing BOM, the project work breakdown structure, or both. Because the work breakdown structure is similar to a BOM structure but is not a BOM, the system requires a way to assign an item's low-level code when you use it on a given project. To assign correct low-level codes, run the Bill of Material Structure Analysis program (R30601) with the processing option that is set to consider items in projects.

PRP identifies the supply for project-specific end items on the work breakdown structure when the Shipment field contains the value **1**.

**Note:** Initially, when you add an end item to the work breakdown structure, do not add any subassembly items to the work breakdown structure. PRP uses the parent end item's supply work order to explode demand to the subassembly and component items. After processing a work order message, the system updates project-specific subassembly items on the work breakdown structure.

You can also set up supply-and-demand inclusion rules for PRP. Consider the statuses of the manufacturing work orders on the work breakdown structure when you use supply-and-demand inclusion rules for PRP.

### PRP Generation

When you run the MRP/MPS Requirements Planning program for projects, the system generates a replenishment schedule for a project.

Demands for projects are given preference when the system distributes on-hand inventory. The Project Commitment Detail table (F410211) stores the detail records for project specific inventory items. PRP uses this table to determine what project-specific inventory to allocate to a given project.

The project supply or availability for an end item is stored in the F4801T table like a typical work order, but the project number is supplied.

## PRP Output

After running the MRP/MPS Requirements Planning program successfully for a project, you can review output information in the system.

The Quantity Type UDC table (34/QT) contains these quantity types that are specific to project supply and demand:

Quantity Type	Description	Unadjusted/Adjusted
+BAPU	Project Beginning Balance Unadjusted	Unadjusted
+POPU	Project Purchase Orders	Unadjusted
+WOPU	Project Work Order	Unadjusted
-FWOPU	Project Firm Work Order	Unadjusted
+BAP	Project Beginning Balance	Adjusted
+IRP	Project Receipt Routing	Adjusted
+POP	Project Purchase Orders	Adjusted
+WOP	Project Work Order	Adjusted
-PWD	Project Work Order Demand	Adjusted
-FWOP	Project Firm Work Order	Adjusted
-PWOP	Project Plan Work Order	Adjusted
-SOP	Project Sales Order	Adjusted

Planning messages for project-specific subassemblies and components include the project number and parent work order information. Use the project number to filter project-specific planning messages in the Message Summary (P3401) and MRP/MPS Detail Message Revisions (P3411) programs. Work orders and purchase orders that are created from planning messages contain the project number.

When creating pegging records, PRP stores the project number in the MPS/MRP/DRP Lower Level Requirements table (F3412) to indicate the origination of the requirements resulting from the project. Orders that are pegged to the project are used only for the given project.

The MPS/MRP/DRP Summary table (F3413) does not contain the project number, but project specific quantity types are used by PRP to calculate and display project-specific quantities.

Use the MRP/MPS Detail Message Revisions program (P3411) to review the messages that the system generated. The time series uses quantity type IDP (Project Interplant Demand) to display project demand that a supply branch meets. You review this information in the MPS Time Series program (P3413).

After you generate replenishment order messages for project-specific items, you continue the process by reviewing the messages and processing them into transfer orders if the supply branch/plant for the order item is different from the demand branch/plant.

When you review messages in the MRP/MPS Detail Message Revisions program (P3411), you can filter the display by project number, in addition to the other filter options, which enables you to work only with order messages that pertain to a particular project. You can use this program to modify a message or respond to it by creating a transfer order.

The Supply and Demand Inquiry program (P4021) has additional grid columns to display the project demand and supply. You must set the processing option to enable PRP display. Use the Supply and Demand Inquiry program (P4021) to determine the current state of the inventory for the project. Project supply and demand, including replenishment transfer orders, appears separately on the Work With Supply and Demand form. Project supply can be used only to meet project demand. In turn, project demand uses up project supply before it uses general supply that is not dedicated to a particular project.

## Project Requirements Planning for Multiple Plants

Project requirements planning, like MRP in general, can encompass more than one plant or facility. The project-specific components that are on the parts list for a work order on the work breakdown structure might be located at a branch/plant other than the plant in which the project is being run. In this case, you must link the project-specific item at the other branch/plant to the project branch/plant by defining an interbranch relationship.

Components that come from a different branch/plant are treated as purchased items. To specify that the supply branch should meet the entire demand, set up the branch relationship so that the supply branch is defined with a source percentage of 100 percent.

When you run the Master Planning Schedule - Multiple Plant program (R3483), it creates messages for replenishment orders. When you process these messages, the system creates transfer orders. Transfer orders satisfy project demand for components by using inventory from the supply branch. To meet the demand at the supply branch, the system creates work orders.

## Prerequisites

To use project planning, perform these steps:

- Ensure that the processing option for project planning in the Master Planning Schedule - Multiple Plant program (R3483) is set to include supply and demand for project-specific items.
- Set up a branch relationship between the project demand plant and a supply branch/plant.

**Note:**

- *"Working with Multifacility Planning" in the JD Edwards EnterpriseOne Applications Requirements Planning Implementation Guide .*
- *"Setting Up Requirements Planning, Setting Up Multifacility Planning, Setting Up Supply and Demand Relationships" in the JD Edwards EnterpriseOne Applications Requirements Planning Implementation Guide .*
- *"Planning Material Requirements, Processing Planning Output, Setting Processing Options for MRP, MPS Detail Message Processing (R3411)" in the JD Edwards EnterpriseOne Applications Requirements Planning Implementation Guide .*

## Forms Used to Perform Project Requirements Planning

Form Name	FormID	Navigation	Usage
Work With Detail Messages	W3411D	Multi-Facility Planning Daily Operations (G3414), Detail Message Review	Review messages for multiplant PRP.
Detail Message Revisions	W3411B	Select a message on the Work With Detail Messages form, and then select Message Revision from the Row menu.	Process messages for multiplant PRP.
Work With Supply and Demand	W4021B	Multi-Facility Planning Daily Operations (G3414), Supply/Demand Inquiry	Review supply and demand for multiplant PRP.

## Generating a Multiplant Requirements Plan for a Project

Select Multi-Facility Planning (G3423), MRP Regeneration.

On engineer-to-order projects, the parts list lines on a project work order determine the demand for components. In an interbranch environment, the supply branch meets the demand for a particular component.

When you run the Master Planning Schedule - Multiple Plant program (R3483) , the system recognizes the one-to-one relationship between a project's supply and demand and creates transfer order messages for the component on the

parts list. The resulting messages include the project number and indicate by the task number in the Source Demand field which work order on the work breakdown structure (WBS) generated the project replenishment message.

## Processing Messages for Multiplant PRP

Access the Detail Message Revisions form.

To process a message, select Process Message from the Row menu. To view the orders that the system generates, select Processed Messages from the View menu.

### Note:

- *"Working with Multifacility Planning" in the JD Edwards EnterpriseOne Applications Requirements Planning Implementation Guide .*

## Reviewing Supply and Demand for Multiplant PRP

Access the Work With Supply and Demand form.

### Project Supply

Displays any transfer orders that you created to meet project demand from a different branch/plant. This field appears in the grid if you have enabled ETO functionality for this program.

## Creating Orders for a Project

This section provides an overview of order creation for a project and discusses how to:

- Enter purchase orders for project material.
- Enter purchase order information using the Project Workbench program.
- Set processing options for Related Orders (P31P204).
- Review and create related orders for a project.
- Attach an existing work order to a project.
- Update related order costs.

## Understanding Order Creation for a Project

In response to planning messages, you can generate replenishment orders (purchase orders and work orders) for project-specific items. Subassembly work orders that you create for a project-specific item are automatically placed on the work breakdown structure. You can also attach existing work orders to a project task.

Depending on business processes, you can create project-specific purchase orders from the parts list line for a project specific item. You can also create a purchase order in the Purchase Orders program (P4310) and then use the Work Order Parts List program (P31P201) to search for the item that requires a purchase order.

In addition to purchasing material for project work orders, you can procure items that are not consumed by work orders but are resold directly to the customer as part of the project deliverables.

## Purchasing Project Material

As part of the manufacturing process, you must purchase the raw materials that are used to produce the end item. JD Edwards EnterpriseOne Engineer to Order offers several methods for creating purchase orders for raw material. In addition to generating work orders from planning messages, you can also enter purchase orders manually, either from the parts list for the work order or directly from the Purchase Orders program.

When you enter a purchase order for a project-specific stock item, the system creates a financial commitment for the purchase order by updating the Account Balances table (F0902) with the committed amount. At the same time, it removes the manufacturing encumbrance if such an encumbrance exists when you enter the purchase order. The system creates only manufacturing encumbrances, provided that you have selected the Interface to Job Cost option for the project. Finally, the system records the purchase order transaction in the P.O. Detail Ledger File - Flexible Version table (F43199).

If the quote has been accepted, you can call the Work Order Parts List program (P3111) for a particular work order from the Project Workbench form and access the Purchase Orders program from it. Before you run the Accept Quote process, you can enter the purchase directly in the Purchase Orders program and access the Work Order Parts List program (P31P201) to select the item for the purchase order.

## Purchasing Project Items for Resale

Project deliverables can include items that the company does not manufacture. In this case, you purchase them from another source and resell them to the customer for the project. The items that you buy are not component items that are consumed in a manufacturing work order. You can have them shipped directly from the supplier to the customer. You can also purchase these items from another branch and transfer them to the project branch. Alternatively, you can purchase and stock these items as project-specific inventory until you send them to the customer with other project deliverables.

In the Project Workbench program (P31P001), you use descriptive (or summary) tasks to create and track project-specific purchased items. You can track all related orders, such as direct ship, transfer, sales, credit, or purchase orders.

To link a descriptive task in the project to its related orders, the system stores order information in the Related Order Cross Reference table (F4080). This table contains the descriptive task order number and order type and detail information from the related orders, such as document type, extended costs, and order status (for information only).

You can access related orders for a project in the View Related Orders region of the Project Workbench form. After you select a project task in the workbench, you can edit an existing order or create a new direct ship, transfer, sales, purchase, or credit order for the task.

You can also access the Related Orders program (P31P204) from the Project Workbench menu. For you to create a related order, the header of the Work with Related Orders form must contain a valid project number, a descriptive task order number, and an order type. You use the Form menu to access versions of the order entry programs for direct shipping, transferring orders, creating sales orders, creating credit orders, or creating purchase orders. The system passes the project number to the sales order and purchase order programs.

If you want to review or revise a related order, you can access the order information by choosing an order entry program from the Row menu. On the Work with Related Orders form, a tree structure displays the unique items on all the related orders. The individual orders are displayed in the detail area.

**Note:** You cannot cancel or close a descriptive task that has related orders attached to it unless the order activity status for all related orders is 999 (closed). The F4080 table retrieves the order status from the Sales Order Detail table (F4211) and the Purchase Order Detail table (F4311).

## Attaching Existing Work Orders to a Project

JD Edwards EnterpriseOne Engineer to Order enables you to attach existing work orders to a project. You can initiate a search for existing work orders from the Project Workbench through the More Tasks Actions field. Any work order that you want to attach to a project must meet these conditions:

- It is not part of another project.
- You did perform issues for any item on the work order part list.
- You did not post hours and quantities for the work order.
- If the work order is a configured work order, it must be a top-level work order. All the children of the work order are also attached.

## Related Costs

Use the Update Related Costs program (R31P405) to update the planned and actual costs for a project's related orders.

To accumulate planned and actual costs for a particular descriptive task, you use the Accumulate Costs option from the More Project Actions field on the Project Workbench form. Using the F4080 table, the system selects the costs for the order using these tables and calculations:

Costs	Table	Field
Planned Cost	Purchase Order Detail (F4311)	Extended Amount (AEXP) from the purchase order detail line
Actual Cost	Purchase Order Receiver (F43121)	Amount Paid to Date (APTD) from purchase order detail lines with match type 2 (after voucher match)

The calculated planned and actual costs are stored in the Work Order Master Tag table as the material costs of the purchased item.

## Forms Used to Create Orders for a Project

Form Name	FormID	Navigation	Usage
Work With Order Headers	W4310I	Purchase Order Processing (G43A11), Enter Purchase Orders	Access the Order Detail form.  <b>Note:</b> The Header Display processing option on the Processing tab must

Form Name	FormID	Navigation	Usage
			be Blank to display the Order Detail form first.
Order Detail	W4310A	Click the Add button on the Work With Order Headers form.	Enter purchase orders for project material.
Work With Work Order Parts List	W31P201B	Select Parts List from the Row menu on the Order Detail form.	Select the work order line for which you want to purchase components.
Edit Tasks	W31P001I	Project Workbench (G31P12), Project Workbench  Select a project on the Search for Projects form, and select Edit Tasks.	Use the View Related Orders region of the Project Workbench form to edit existing orders or create new orders for a project task.
Work with Related Orders	W31P204A	Project Workbench (G31P12), Related Order	Review related order information and access order programs to create related orders.

## Entering Purchase Orders for Project Material

Access the Order Detail form.

Enter the required purchase order information.

See *"Entering Purchase Orders" in the JD Edwards EnterpriseOne Applications Procurement Management Implementation Guide* .

## Entering Purchase Order Information Using the Project Workbench Program

Access the Edit Tasks form.

To enter a purchase order for project material from the Project Workbench:

1. Select a project task on the hierarchal grid.
2. Select **Mfg Parts List** from the More Task Actions field and click the >> button.



3. Select the project-specific part for which you want to create a purchase order on the Work Order Parts List form, and select Create PO from the Row menu.

**Note:** A supplier record must exist before you can create a purchase order.

The purchase order information (order number, order type, and line number) appears in the parts list line for the item.

## Setting Processing Options for Related Orders (P31P204)

These processing options control default processing for the Related Orders program.

### Versions

These processing options control which version the system uses when you call other programs from the Related Orders program.

#### 1. Direct Ship Order (P4210)

Specify which version of the Sales Order Entry program (P4210) the system uses when you select Direct Ship from the Row menu on the Work with Related Orders form. If you leave this processing option blank, the system uses version ZJDE0005.

#### 2. Transfer Order (P4210)

Specify which version of the Sales Order Entry program (P4210) the system uses when you select Transfer Order from the Row menu on the Work with Related Orders form. If you leave this processing option blank, the system uses version ZJDE0007.

#### 3. Sales Order (P4210)

Specify which version of the Sales Order Entry program (P4210) the system uses when you select Sales Order from the Row menu on the Work with Related Orders form. If you leave this processing option blank, the system uses version ZJDE0001.

#### 4. Purchase Order (P4310)

Specify which version of the Purchase Orders program (P4310) the system uses when you select Purchase Order from the Row menu on the Work with Related Orders form. If you leave this processing option blank, the system uses version ZJDE0030.

#### 5. Credit Order (P4210)

Specify which version of the Sales Order Entry program (P4210) the system uses when you select Credit Order from the Row menu on the Work with Related Orders form. If you leave this processing option blank, the system uses version ZJDE0002.

## Reviewing and Creating Related Orders for a Project

Access the Edit Tasks form.

1. Select a project task in the hierarchal grid and access the View Related Orders region of the Project Workbench form.
2. Review existing orders.
3. To change an existing order, select the order and click the Edit Order button.

4. To create a new order, access an order entry program by selecting a value from the Go To field, and then click the >> button.

Enter order information on the order detail form that appears. You can add direct ship, transfer, sales, purchase, and credit orders for a project task.

**Note:** You can also review and create related orders for a project by accessing the Related Order program (P31P204) from the menu.

You can review the Edit Tasks form and related regions of the form in these tasks:

See *Working with a Project*.

See *Defining Task Dependencies*.

**Note:**

- *"Entering Sales Orders" in the JD Edwards EnterpriseOne Applications Sales Order Management Implementation Guide* .

## Attaching an Existing Work Order to a Project

Access the Edit Tasks form.

To attach an existing work order to a project from the Project Workbench:

1. Select the project task to which you want to attach an existing work order.
2. Select **Attach Work Order** from the More Task Actions field.
3. Complete the Order Number field on the Work Order Search form to search for the work order to attach to the project task.
4. Select the work order, and click Select.

The selected work order appears in the detail area of the Project Workbench form under its parent task.

5. Click Save and Close or Save and Continue to save the work order to the WBS.

## Updating Related Order Costs

Select Project Workbench (G31P12), Update Related Costs.

This report prints project information from the Project Attributes table (F31P01) , as well as task information and the planned and actual costs that are being uploaded to the work breakdown structure. You print the task and cost information only if planned and actual costs were accumulated for the descriptive task.

## Setting Up Project Commitments

This section provides an overview of project commitments and discusses how to:

- Review inventory commitments for project work orders.
- Set processing options for Commitment Rebuild (R31P993).
- Create a commitment audit trail.

## Understanding Project Commitments

During the planning phase, you run the processes that create inventory and financial commitments for work orders and purchase orders if these commitments have not been created previously. JD Edwards EnterpriseOne Engineer to Order enables you to postpone making these commitments until after the customer accepts the quote. Select the Commit After Quote Accept option in the project attributes to run the Order Processing program (R31410) to obtain estimated costs without making inventory and financial commitments at that point. If you bypassed commitments before you ran the Accept Quote process, commitments are made when the system runs the Order Processing program automatically as part of the Accept Quote process.

### Inventory Commitments

When you run the Order Processing program (R31410), the system attaches the parts list and routing to the work orders that are being processed and creates inventory commitments for the parts on the parts list, based on the commitment control setting in the Manufacturing Constants program (P3009). To enable you to reserve component items and other material for a particular project, you can set up items as project-specific material by assigning them a project-related stocking type with a special handling code of P. When items are associated with a project, you cannot issue this material to a work order that is outside of the project unless the hard-commitment for the project is cleared.

When the system initiates order processing for the work orders on the work breakdown structure when you run the Accept Quote process, the system creates hard-commitments for all component quantities based on the commitment method that is specified in the Item Branch table (F4102). The program processes all work orders in the work breakdown structure in descending order and creates project-specific commitments in the Project Commitment Detail table (F410211).

For project-specific items on purchase orders, the system creates hard-commitments for a specific location and lot when you receive the purchase order using the Purchase Order Receipts program (P4312). The inventory commitment is relieved when you issue the material. You can set a processing option to call the Inventory Issues program (P4112) automatically for items for which you have selected the Call Materials Issue option in the line type constants.

You can review project-specific inventory commitments by using the Project Commitment Detail Inquiry program (P410211). This program displays component quantities that are hard-committed for project work orders in the primary unit of measure, as well as the location and lot or serial number. The total quantity of inventory that is committed to projects is summarized in the Item Location table (F41021) in the Project Hard Committed Quantity field. You can review this information in the Summary Availability program (P41202).

## Financial Commitments

If you use the JD Edwards EnterpriseOne Job Cost system, you can create financial commitments for project tasks. A financial commitment represents recognition of a future payment obligation. Creating financial commitments enables you to:

- Review the budget and remaining amounts.

By comparing the projected final cost to the actual cost-to-date, you can calculate a percentage complete. This percentage complete facilitates profit recognition because it enables you to avoid variances in the costs that you incur and in the revenue that you record for different periods.

- Calculate final project costs.
- Facilitate the processing of change orders.
- Provide information as a basis for recouping losses that are associated with committed inventory when a project is canceled.

In addition to creating encumbrances for purchasing, you can create financial commitments for stock components on manufacturing work orders. The financial commitment occurs when the material is hard-committed. You do not create commitments for labor costs that are associated with work orders.

**Note:** To perform financial commitments for manufacturing work orders, you must set up AAI 3120 (Work in Process) for use in projects in the Project Accounting UDC table (31P/AI) and include the manufacturing work order in the Commitment Document Types UDC table (40/CT).

When you attach the parts list and routing to the work order either interactively or by running the Order Processing program, the system creates a financial commitment for a work order by calculating the total amount that is committed for inventory. It updates the PA/PU ledger amounts in the related record in the F0902 table and enters the transaction in the F43199 table. It also maintains the original and remaining committed amounts in the F4801T table.

**Note:** To avoid doubling financial commitments for subassembly items, the system removes committed amounts from the parent work order when you attach a parts list to the subassembly work order. When you attach components to a parent work order, the system determines whether subassembly work orders already exist for the components. In this case, their cost is included in the calculation of the total financial commitment.

Financial commitments for stock components on manufacturing work orders are relieved when you complete work orders. The system decommits financial commitments when the issue transactions for project-related work orders are posted, and it updates the committed amount in the F4801T table, the F0902 table, and the F43199 table. Then, the system posts actual amounts with ledger type AA.

Run the Commitment Integrity report (R40910) to determine whether the open order amounts match the committed amounts and the amounts in the F0902 table. If these amounts do not match, you can purge financial commitments and then create an audit trail using the Commitment Rebuild program (R31P993).

When needed, you can use the Post Committed Costs to Jobs program (R00932) to repost PA ledger commitments in the F0902 table, including values from manufacturing-related records in the F43199 table.

When you create a purchase order for a component on a manufacturing work order, the system relieves the financial commitment for the work order. From this point forward, the financial commitment is created and maintained within the JD Edwards EnterpriseOne Procurement system.

When you post material transactions to the general ledger by running the Post General Journal program (R09801), the system relieves the related financial commitments. When the work order number in the subledger field in the Account

Ledger table (F0911) identifies the work order as a project work order, the system relieves the financial commitment for the work order. Relieving the financial commitment updates the F4801T table, the F0902 table, and the F43199 table.

If you must roll over financial commitments that still exist at the end of a fiscal period, you can use the Encumbrance Rollover program (R4317) to relieve committed lines on purchase orders and work orders for the previous year and recommit them with the general ledger date for the current year. You must set a processing option for the program to include financial commitments for manufacturing work orders.

**Note:**

- *"Working with Commitments" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide .*

## Form Used to Review Inventory Commitments for Project Work Orders

Form Name	FormID	Navigation	Usage
Work With Project Commitment Detail	W410211A	Project Workbench (G31P12), Project Commitment Detail Inquiry  Complete the Project Number field on the Work With Project Commitment Detail form, and click the Find button.	Review inventory commitments for project work orders.

## Reviewing Inventory Commitments for Project Work Orders

Access the Work With Project Commitment Detail form.

**Project Hard Commit**

Displays the inventory that is hard-committed to the project.

## Setting Processing Options for Commitment Rebuild (R31P993)

These processing options control default processing for the Commitment Rebuild program.

**Process**

These processing options control which records are included in the report.

**1. Work Order Close Status**

Specify the status of a closed work order. The system processes only those work orders whose status is less than the closed work order status that you specified. If you leave this processing option blank, the system uses a default status of 99 for closed work orders.

## **2. Include Purchase Orders / Sub-Contracts**

Specify whether the system runs the Create F43199 Commitment Audit Trail program (R00993) to create records in the P.O. Detail Ledger table (F43199) for purchase orders and subcontracts that are related to a project. Values are:

Blank: Do not include purchase orders or subcontracts.

- 1:** Include only purchase orders or subcontracts that are related to a project.
- 2:** Include only purchase orders or subcontracts that are related to an account.
- 3:** Include all purchase orders or subcontracts.

## Creating a Commitment Audit Trail

Select Periodic Processing (G31P20), Commitment Rebuild.

If you have purged financial commitments manually, you can use the Commitment Rebuild program (R31P993) to create an audit trail for a project's financial commitments that are related to manufacturing work orders or purchase orders. This program is based on the information from the F4801 table, the F3111 table, and the F4311 table.

The program processes all open purchase orders and work orders for an active project. It creates a record in the F43199 table for the total amount that is committed to the parts list of each order, and it calls the Create Commitment Audit Trail program (R00993) to create a record in the F43199 table for each line on a purchase order that is related to a specific project or account number.

# 5 Initiating Projects

## Understanding the Project Initiation Process

Project initiation is the beginning phase for large-scale engineer-to-order (ETO) or make-to-order activities. Industries that make products according to very specific customer requirements rely on project management practices to ensure that all customer requirements are met in the final product. Projects of this nature can have a life cycle of a year or more; therefore, during the project initiation phase, you must comprehensively and accurately enter all of the information that is required for a project.

If you operate in an engineer-to-order business environment, you typically initiate a project only when a customer requests a quote for a specific product. After the customer transmits the request for a quote, you complete these activities that yield the information that is required for a quote:

- Create a project.
- Define high-level phases and tasks.
- Determine an estimated schedule.
- Calculate estimated costs.
- Determine a price and generate a proposal.

The goal of these activities is to provide the customer with sufficient information to make an informed decision about accepting or rejecting the quote. Some of the project initiation activities might be iterative, in response to additional customer questions and requirements. The project initiation phase concludes when the customer accepts the quote and you actually start planning for and working on the project tasks.

## Creating Projects

This section provides an overview of project creation and discusses how to:

- Set processing options for Project Workbench (P31P001).
- Create projects.

## Understanding Project Creation

When a customer requests quote information for the product that you propose to produce for the customer, the first step is to set up a project. You have two options for creating a project. You can create a new project using the Add/Revise Project program (P31P011), or you can copy an existing project and change the project header information, as appropriate. After you define all the global project information, you can add task and schedule information, as well as financial estimates. This essential information helps you understand the activities that are required for a project and the costs that you may incur when you perform these activities. Without this information, you might have difficulty providing the customer with a realistic quote that enables you to complete the project at a profit.

**Note:** When you copy a project to create a new project, the system copies the task information that is associated with this project, but not the task dependencies.

Projects are stored as records in the F4801 table. When you set up a new project, you must provide this required information:

- Project description
- Branch/plant
- Order status
- Order type
- Planned start date
- Planned end date

The Add/Revise Project form enables you to add additional information, such as a business unit and a customer number, on the Project Information tab. The branch/plant provides the default value for the business unit if you do not enter a business unit. If you use the JD Edwards EnterpriseOne Job Cost system with JD Edwards EnterpriseOne Engineer to Order, you can enter a business unit that is different from the branch/plant. If you enter a business unit that does not exist in the system, and you have selected the Job Cost Interface option, you can add a new record to the Extended Job Master table (F5108) . You must provide a customer number to generate a sales quote from the Project Quotes program (P31P100) . You can also use the customer number to retrieve cost information, such as tax rates.

On the People tab, you can provide information about some of the people who are involved with the project, such as the manager and supervisor, and specify an email distribution list for status change notifications and project alerts.

The Project Attributes tab contains important processing information. You can determine whether the system commits inventory before or after the Quote Accept stage of the project. You can avoid allocating inventory and making financial commitments until you have assurance that the project will actually proceed. You can also specify whether the system overrides the originally entered estimated costs with the planned costs after you attach the parts list and routing instructions to a task.

If you are planning to use the Job Cost features of JD Edwards EnterpriseOne Engineer to Order, you must activate the Job Cost Interface option on the Job Cost tab and enter a GL class code. A subsidiary is required for every task. The JD Edwards EnterpriseOne Job Cost system uses only planned costs, and the project must be moved to the Quote Accept status before JD Edwards EnterpriseOne Job Cost can be used.

The Project Status tab on the Add/Revise Project form displays information about the stages of a project. When you complete each stage, the system activates the corresponding option, such as Quote Is Accepted. The options on this tab are locked from input and are for information only.

On the Order Information tab, you can specify order information, such as item number, quantity, and unit of measure. On the Sales Order tab, you can specify a billing method for the project. The program also provides many category codes that you can use for reporting.

## Technical Considerations for Storing Project Information

When you work with the Project Workbench program, the system enables you to add and change project information. If you close the Project Workbench program without clicking Save and Continue or Save and Close, the information that you added or changed is not saved. The information is stored in cache to improve system performance. As long as the information resides only in cache, however, it is not stored in the appropriate tables. To save the project information, you must click Save and Continue or Save and Close in the Project Workbench program before you close the program.



## Forms Used to Create Projects

Form Name	FormID	Navigation	Usage
Search for Projects	W31P001B	Project Workbench (G31P12), Project Workbench	Create projects. Review existing projects, copy a project, and revise a project.
Add/Revise Project	W31P011A	Select Add on the Search for Projects form.  Alternatively, select the project on the Search for Projects form, and select <b>Attributes</b> from the More Row Actions field.	Create projects.  Define or revise project header information.
Project Inquiry	W31P001F	Select the project on the Search for Projects form, and select <b>Project Inquiry</b> from the More Row Actions field.	Review the work breakdown structure of the project.

## Setting Processing Options for Project Workbench (P31P001)

These processing options control default processing for the Project Management Workbench program.

### Defaults

These processing options control the default values for order type, as well as task and project status.

#### 1. Enter the Default Order Type

Specify the order type that is used as the default value when you create new tasks on the Project Workbench.

#### 2. Enter the beginning Status for new Tasks

Specify the beginning status that is used as the default value when you create new tasks for nonconfigured items.

#### 3. Enter the beginning Status for Configured Tasks

Specify the beginning status that is used as the default value when you create new tasks for configured orders.

#### 4. Enter the Default 'From Status' of Projects to display

Specify the default value for the From Status filter field on the Work With Projects form.

#### 5. Enter the Default 'Thru Status' of Projects to display

Specify the default value for the Thru Status filter field on the Work With Projects form.

#### 6. Enter the level of nodes to expand on entry

Specify the number of node levels in the project workbench hierarchical grid to expand to when entering Project Workbench. Values are:

Blank: Expand the project workbench to two levels. This is the default value.

Any numeric value: Expand the project workbench to the number of levels indicated. For example, a value of 4 in this field would expand the project workbench to display nodes four levels deep.

## Versions

These processing options control which version the system uses when you call other programs from the Project Workbench program. This table lists the programs in the order that they appear on the Versions tab, along with the default version. If you leave the processing option blank, the system uses this default version. You can define different versions in accordance with business processes.

### 1. Manufacturing Work Order Entry (P48013)

ZJDE0001

### 2. Equipment Work Order Entry (P17714)

ZJDE0001

### 3. Service Work Order Entry (P17714)

ZJDE0001

### 4. Configurator (P3210)

ZJDE0001

### 5. Manufacturing Work Order Parts List (P3111)

ZJDE0001

### 6. Manufacturing Work Order Routings (P3112)

ZJDE0001

### 7. Equipment Work Order Parts List (P17730)

ZJDE0002

### 8. Equipment Work Order Labor Detail (P17732)

ZJDE0002

### 9. Service Work Order Parts List (P17730)

ZJDE0001

### 10. Service Work Order Labor Detail (P17732)

ZJDE0001

### 11. Cost Components (P30026)

ZJDE0001

### 12. Project Quotes (P31P100)

ZJDE0001

### 13. Job Cost Master Revisions (P51006)

ZJDE0001

### 14. Upload Job Cost Budget (R31P800)

ZJDE0001

### 15. Sales Order Entry (P4210)

ZJDE0001

**16. Work Order Processing (R31410)**

XJDE0001

**17. Project Close Analyzer (R31P403)**

ZJDE0001

**18. Work Order Inventory Issues (P31113)**

ZJDE0001

**19. Work Order Hours and Quantities (P311221)**

ZJDE0001

**20. Work Order Completions (P31114)**

ZJDE0001

**21. Resource Assignment (P48331)**

ZJDE0001

**22. Export Project Information (R31P404)**

ZJDE0001

**23. Import Project Information (R31P801)**

ZJDE0001

**24. Net Change (R31430)**

XJDE0001

**25. Related Orders (P31P204)**

ZJDE0001

## Process

These processing options control settings that affect processing in the Project Workbench program.

### 1. Enter the cancelled status for tasks

Specify the status for canceled tasks. When you select Cancel Task from the Row menu, the system moves the selected task to this status. Tasks at this status appear crossed out.

### 2. Enter the closed status for tasks

Specify the status for closed tasks. When you select Close Task from the Row menu on the Project Workbench form, the system moves the selected task to this status. Tasks at this status appear crossed out.

### 3. Net Change

Specify whether net change processing is performed when you quit the Project Workbench program (P31P001). You may want to run net change processing when you have changed information, such as dates, quantity, or unit of measure, on a work order that has a parts list and routing attached to it. The Net Change Processing program (R31430) can be launched when you click OK on the Project Workbench form. Values are:

Blank: Do not perform.

**1:** Perform.

**Note:** Set the Quantities and Dates processing option in the specified version of Manufacturing Work Order Entry program (P48013) to recalculate parts list and routing information.

## Copy

These processing options control copy functions within the Project Workbench program.

### 1. Create Job Master

Specify whether the system should create a Job Master record when you add or copy a project. Values are:

**1:** Create.

Blank: Do not create.

### 2. Amount Ledger Type

Specify the amount ledger type to update. If you leave this processing option blank, the JA ledger is updated. The budget unit ledger type to be updated is determined automatically, based on the amount ledger type. For example, the corresponding budget unit ledger type for JA is JU.

### 3. Copy Blindly

Specify whether the system copies the chart of accounts automatically or interactively. If you select to copy the chart of accounts interactively, you do so using an option from the Form menu. If you specify that the system copy the chart of accounts automatically, it does so after the job master record is created. You must define the source of the data to copy to the job. Values are:

Blank: Do not automatically copy.

**1:** Copy.

### 4. Job Copy Source, 5. Job to copy from, and 6. Chart to copy from

Specify the data source for the job to copy. If you copy the data from an existing chart of accounts, you must enter the name of the chart of accounts into the Chart To Copy From processing option. If you copy the data from an existing job, you must enter the name of the job into the Job To Copy From processing option. Values are:

**1:** Copy job data from an existing chart of accounts.

Blank: Copy job data from an existing job.

### 7. Upload Original Budgets

Specify whether to upload original budgets automatically when you select the Lock Job Cost Budget option. Values are:

Blank: Upload manually.

**1:** Upload automatically.

### 8. Assign Subsidiary

Specify whether to assign the subsidiary account from the parent task to all of the child tasks automatically. The automatic assignment is possible only if the Subsidiary field in the child task line is blank. Values are:

Blank: Do not assign automatically.

**1:** Assign automatically.

### 9. Copying Cost for New Project

Specify where costs are copied from when you create a new project by copying an existing project. The copied costs populate the estimated cost fields for the new project. Values are:

Blank: Copy estimate to estimate

**1:** Copy actual to estimate

## Scheduling

These processing options control scheduling for projects and determine whether you can modify frozen work order dates.

### 1. Modify Frozen Work Order dates

Specify whether you want to enable the dates on a frozen work order to be modified. Values are:

Blank: The scheduling feature does not adjust the work order dates.

1: The scheduling feature reschedules the frozen work order dates when appropriate.

### 2. Display Scheduling Error Report

Specify whether you want to see a report displaying the scheduling data that generated a scheduling error. Values are:

Blank: Do not display the error report.

1: Display the report.

## Creating Projects

Access the Add/Revise Project form.

### Project Information

Select the Project Information tab.

#### Branch

Enter a code that represents a high-level business unit. Use this code to refer to a branch or plant that might have departments or jobs, which represent lower-level business units, subordinate to it. For example:

Branch/Plant (MMCU) Dept A (MCU)

Dept B (MCU)

Job 123 (MCU)

Business unit security is based on the higher-level business unit.

#### Business Unit

Enter the business unit. The Branch/Plant field provides the default value for the business unit. If you use the JD Edwards EnterpriseOne Job Cost system, enter the job number in the Business Unit field.

#### Customer

Enter the identifier for the project's customer.

#### Status

Enter the project status.

#### Order Type

Enter a user-defined code (UDC) (00/DT) that identifies the document type that represents a project. For most users, this should be ET (Summary Task).

## Dates

Select the Dates tab.

### Planned Start and Planed End

Enter the planned date range for the project.

When you copy an existing project to create a new project, the system leaves these fields blank. You must complete the fields with information that is specific to the project.

### Actual Start and Actual End

Enter the actual date range for the project. The system updates the Actual Start and Actual End date fields on the project header from the project as the actual start and end dates for tasks are combined into the actual start and end dates for the project.

### Other Date 5 and Other Date 6

Enter a date that relates to a project or job in these fields. Use the information for reporting purposes. This date is user-defined.

## People

Select the People tab.

### Manager

Enter the address book number of a manager or planner.

### Supervisor

Enter the address book number of the supervisor.

### Assigned To

Enter the address book number of the person assigned to do the work.

### Distribution List

Enter the address book number of the parent company. The system uses this number to associate a particular address with a parent company or location. Any value that you enter in this field updates the Address Organization Structure Master table (F0150) for the blank structure type. Examples of address book records that would have a parent number in the Address Book Master table (F0101) for validation purposes:

- Subsidiaries with parent companies.
- Branches with a home office.
- Job sites with a general contractor.

### Organization Structure Type

Enter a user-defined code (01/TS) that identifies a type of organizational structure that has its own hierarchy in the JD Edwards EnterpriseOne Address Book system from Oracle (for example, email).

## Project Attributes

Select the Project Attributes tab.

### Commit After Quote Accept

Select to specify the stage of the project during which the system commits inventory when it attaches a parts list to a project work order. If you select this option, the system commits inventory after the Quote Accept stage. Otherwise, the system commits inventory before the Quote Accept stage.

### Override Estimates Flag

Select to specify whether the system overrides the estimated cost with the planned cost when you attach a parts list and routing to the order.

## Estimated Costs

Select the Estimated Costs tab.

### Material and Labor

Enter a project-level cost estimate for material and labor.

**Note:** If you enter estimated costs for the project, these costs are added to the summarization cost fields in the project workbench.

### Other

Enter estimated other costs.

### Special Units and Special Amount

Enter the approximate number of special units or special costs at the project level.

### Total

Displays the total project costs that are calculated from the costs that you entered.

## Job Cost

Select the Job Cost tab.

### Interface to Job Cost

Select to enable you to use JD Edwards EnterpriseOne Job Cost system functionality for the project.

### Require Activity Code

Select to enable the optional entry of activity codes.

### Project GL Class Code (project general ledger class code)

Enter a user-defined code (41/9) that identifies the GL offset account that the system uses when it uploads budgets, commitments, and actuals into project accounts.

### Subsidiary

Enter a subset of an object account. Subsidiary accounts include detailed records of the accounting activity for an object account.

**Note:** If you use subsidiary, it appears by default on every line.

**Note:** If you are using a flexible chart of accounts and the object account is set to six digits, you must use all six digits. For example, entering 000456 is not the same as entering 456 because if you enter 456, the system enters three blank spaces to fill a six-digit object.

## Project Status

Select the Project Status tab.

The system populates the fields on this tab based on the project status. You cannot change the fields. The system displays these project statuses:

- Quote is Accepted.

- Job Cost Budget Uploaded Flag.
- Lock Job Cost Budget.
- Lock WBS
- Project is Closed.

## Order Information

Select the Order Information tab.

### Item Number

Enter the item number for the project.

### Quantity

Enter the quantity of units that is affected by this transaction.

### U/M (unit of measure)

Enter the unit of measure for the item.

### Type

Enter the order type for the project.

### Priority

Enter a user-defined code (OO/PR) that indicates the relative priority of the project.

### Freeze Code

Enter a code that indicates whether the project is frozen. Values are:

**Y:** Yes, the project is frozen.

**N:** No, the project is not frozen. This value is the default.

### Ship This Phase

Select this option to specify whether the system can generate a sales order line for a project task. Project Requirements Planning (PRP) uses this value to explode project-specific requirements. Values are:

Blank: Do not generate

**1:** Generate

## Categories

Select the Categories tab.

Complete the category code fields as needed to further define the project.

## Sales Order

Select the Sales Order tab.

### Billing Method

Specify the billing method to be used for the project. Values are:

**1:** Sales Order Management

**2:** Contract Billing

**3:** Service Billing

### Order Number, Order Type, and Order Company



Displays sales order information that was entered in the JD Edwards EnterpriseOne Sales Order Management system.

## Working with Projects and Project Tasks

This section provides an overview of projects and project tasks and discusses how to:

- Work with project queries.
- Unlock a project.
- Work with a project.
- Add and revise project tasks.

## Understanding Projects

After you have set up a project, you access the Project Workbench program to define the project details and requirements. On the Search for Projects form, you search for a project by entering search criteria in the header portion of the form or by using queries. You can save and edit queries to use for future project searches.

After you find and select the project, three modes are available for working with the project:

- View mode: This is an inquiry only mode.

You cannot edit the project or tasks in the project.

- Edit Tasks mode: This is a change mode.

The system places record reservation only on records that you have modified. Also, the system does not let you edit a record that has been locked by a different user or application.

- Edit And Lock All Tasks mode: This is a change mode.

All records in the project are locked as the lock is placed on the project. This mode is primarily used for scheduling. All records are locked and other applications or programs are not able to access them until you quit this mode. All the orders in the project are reserved by the project and you are allowed to perform scheduling.

After you select a project and mode, the List of Records Locked form appears for the Edit Tasks and Edit And Lock All Tasks modes if work order tasks are locked outside the workbench. In the Edit Task mode, if the records are locked by other applications or users, you can proceed to work with the project, but you do not have access to work with the locked record. The List of Locked Records form displays the order number, project number, program ID, and user name of the locked records. When in the workbench, any locked records are identified by a lock symbol on the row in the Edit Tasks mode.

The Project Workbench features a hierarchical grid (parent/child grid) where you edit project tasks. The hierarchical grid combines the functionality of a tree and grid into one form. You can indent, outdent, move up and down, insert, cut, copy, and paste tasks within the Project Workbench. The Project Workbench form also features tabs that group logically related fields.

When you run any report, such as Process Project, Process Task, and Close Project, the system saves the data and, with confirmation from the user, then quits the workbench.

## Understanding Project Tasks

After you have set up a project, you create a work breakdown structure (WBS) that provides a hierarchy of tasks and subtasks that must be completed for the project. You can also add all of the detail information that enables you to plan for and run the project, such as the project schedule. You can also enter resource information that the system does not use for processing, but that you use for reference only. Finally, you can add cost estimates that enable you to generate a quote for the customer.

After setting up a project header record with information such as project description, branch/plant, planned start and end dates, and so on, you can add to the project individual tasks that represent the steps that are required to complete the project. The set of tasks that comprise the project is referred to as the work breakdown structure (WBS). You can add tasks to the work breakdown structure, if it is not yet locked. If you lock the WBS, the Lock WBS option on the Project Status in the Add/Revise Project program (P31P011) is automatically selected.

When you set up a project to prepare a quote for a customer, you might want to add only high-level or summary tasks to enable you to identify the steps that are required to complete a project and to enter the costs that are associated with a task. By using this approach, you can determine a quote amount without having to expend more effort than necessary to develop a project before you actually receive an order from a customer. However, the business requirements and practices of a company determine the stage at which you add tasks and the level of detail for the task structure. The procedure for adding tasks to projects remains the same regardless of when you do it. The system enables you to develop a work breakdown structure with an unlimited number of subordination levels. When you enter tasks, the system creates a record in the Work Order Master table (F4801) for each task and assigns the project number as parent work order number. You can create new tasks by copying tasks from an existing project or by entering new task information. You can also move tasks within the WBS or cancel tasks.

When you add tasks to the detail area of the workbench, you must specify the order type. If you add an equipment maintenance or service order task to the project, this task becomes the model work order. From the model work order, the system generates the assigned maintenance or service order and loads it to the Project Workbench program (P31P001). If you add a task that contains a configured item work order, which is identified by its stocking type (C), the Project Workbench program calls the Configured Item Revisions program (P3210) to complete the item configuration. Subsequently, the system creates all new work orders that are required by the configuration and adds them to the configured item task as child tasks.

You can use the processing options to set default values for tasks that you add to the WBS. For example, you can use processing options to set default values for the order type and the beginning status for new tasks. You can also specify whether the system automatically expands the project tree to display the task hierarchy.

On the Project Workbench form in Edit Tasks and Edit And Lock All Tasks modes, you can copy, move, and delete tasks. You can copy tasks from an existing project into the WBS. To move a task, you can use the cut and paste function, indent/outdent, or up arrow and down arrow.

### Project Costs

A significant aspect of building a work breakdown structure for a project is to assign estimated costs to each project task so that you can calculate the total cost of the project. Obtaining accurate cost information is a prerequisite for creating a good project budget and providing a price quote to the customer. JD Edwards EnterpriseOne Engineer to Order tracks estimated, planned, budgeted, and actual costs.

To obtain planned costs for a manufacturing task, you must attach a parts list and routing instructions to the work order by running the Order Processing program (R31410) for work orders.

**Note:** You can run the Order Processing program either for an individual work order task or for the entire project. You access this functionality by using the appropriate task or project actions.

See *"Working with Work Orders and Rate Schedules, Processing Work Orders and Rate Schedules" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide* .

In the project attributes, you can specify that the system enables you to obtain the cost information for the WBS by running this process without allocating inventory to the project at this point. You can also select to override previously entered estimated costs with planned costs to get the most up-to-date cost information. This step is necessary if you select to build a quote from the information in the estimated cost, not the planned cost, columns.

To obtain cost information, you must:

- Select the appropriate option in the project attributes.
- Select the **Override Estimate** value in the More Task Actions field on the Project Workbench form.

You cannot enter or change actual costs on the Project Workbench. When you run the Rollup of Actual Costs to Workbench program (R31P301), the system updates actual costs from the cost data that you provide as the project progresses, such as when you enter labor costs in the Work Order Time Entry program (P311221). Budgeted cost is represented as a single Budgeted Cost column. When you accept the quote in the Project Workbench program (P31P001), the system copies the total estimated cost into this field.

The system stores all of these costs in the F4801 table, and the Work Order Master Tag table (F4801T) .

## Resource and Task Assignments

The Project Workbench program (P31P001) enables the project manager to enter resources for tasks on the WBS. This capability enables the project manager to view the resources that are assigned to manufacturing tasks and projects. Employees, in turn, can view their assignments, and the start and end dates for their tasks. You can assign multiple resources to a task, if necessary, to accommodate the amount of time that is required to complete the task.

Use JD Edwards EnterpriseOne Resource Assignments to assign resources to equipment and service orders on a project. To assign resources to a task, you create an equipment or service order for a non-production task and then assign the resources to the order. You access the order routing from the Project Workbench and assign resources to individual routing steps using the Resource Assignments program (P48331).

After you assign resources there, you can review them at the task level by selecting the **Resources** value from the More Task Actions field on the Project Workbench form. For manufacturing work orders, you access the Resource Assignments program from the work order routing.

**Note:**

- *"Assigning Resources to Work Orders, Assigning Resources to Tasks" in the JD Edwards EnterpriseOne Applications Resource Assignments Implementation Guide* .

## Forms Used to Work with Projects and Project Tasks

Form Name	FormID	Navigation	Usage
Search for Projects	W31P001B	Project Workbench (G31P12), Project Workbench	<p>Complete any of the filter fields on the Search for Projects form, and click the Find button.</p> <p>Alternatively, select a query from the Select a Query field and click the Find button.</p> <p>Add new projects, review and select existing projects, and copy existing projects.</p>
View All Tasks	W31P001I	On the Search for Projects form, select a project and click the View All Tasks button.	View all related project information. This is an inquiry-only mode.
Edit Tasks	W31P001I	On the Search for Projects form, select a project and click the Edit Tasks button.	<p>Edit project tasks that are not locked by another user.</p> <p><b>Note:</b> If work orders that are associated with the project are locked outside the workbench, you access the List of Records Locked form. You are not able to work with these records inside the workbench.</p>
Edit And Lock All Tasks	W31P001I	<p>On the Search for Projects form, select a project and click the Edit and Lock All Tasks button.</p> <p>On ETO Project Workbench - Edit and Lock All Task WARNING (W31P001O), select Edit and Lock All Tasks to continue.</p>	<p>Lock down the entire workbench while project tasks are edited.</p> <p><b>Note:</b> Edit And Lock All Tasks is primarily used for scheduling.</p> <p><b>Note:</b> If work orders that are associated with the project are locked outside the workbench, you access the List of Records Locked form. You are not able to work with these records inside the workbench.</p>

Form Name	FormID	Navigation	Usage
Additional Task Information	W31P001D	Select a task on the Project Workbench form in Edit Tasks or Edit And Lock All Tasks mode, and then select <b>Additional Info</b> from the More Task Actions field.	Add category code information to a project.

## Working with Project Queries

Access the Search for Projects form.

To create and save a query:

1. Define the specific information to use in a project query in the header.
2. Click the Save Query button.
3. On the Save Query form, complete the applicable fields and click Save.

To edit or delete existing queries:

1. Click the Edit Queries button.
2. On the Edit Queries form, select a query and click the Delete button to delete the selected query or the Edit button to revise an existing query.

## Unlocking a Project

Access the Search for Projects form.

**Note:** Use this option only for a catastrophic system failure such as a power outage or system crash. Security should be enabled at the user level so that users do not have access to this option.

To unlock a project:

1. Select a project on the Search for Projects form.
2. Select **Unlock** from the More Row Actions field.
3. The system unlocks the project.

## Working with a Project

Access the Edit Tasks form or the Edit And Lock All Tasks form.

**Note:** The available options in the More Project Actions field vary by mode.

Select a value from the More Project Actions field:

### Process Project

Process orders for a project by running the Order Processing program (R31410).

### **Quotes**

Create a sales quote for a project.

### **Accept Quote**

Accept a sales quote for a project.

### **Freeze WBS (freeze work breakdown structure)**

Freeze the work breakdown structure for the project.

### **Close project**

Close the project.

### **Copy Task**

Copy the task that was selected on the Project Workbench form.

### **Accumulate Cost**

Update costs for related orders in the workbench.

### **Freeze JC Budget (freeze job cost budget)**

Freeze the job cost budget for the project.

### **Import From Host**

Import the work breakdown structure for a project.

### **Export From Host**

Export the work breakdown structure for a project.

### **Dependencies**

Define or revise task dependencies in a project.

You can review the regions of the Edit Tasks form in these tasks:

See *Defining Task Dependencies*.

See *Reviewing and Creating Related Orders for a Project*.

## Adding and Revising Project Tasks

Access the Edit Tasks form or the Edit And Lock All Tasks form.

Use the Insert Above, Insert Below, Insert Child, and Delete buttons to add, revise, or delete tasks.

Select a task and select a value from the More Task Actions field:

### **Resources**

Display resources such as work order details, labor details, and people associated with a task on a project.

### **Override Estimate**

Override the estimate for a task in a project.

### **Attach Work Order**

Run the Order Processing program (R31410) for a task.

### **Additional Info (additional information)**

Add category code information to a project on the Additional Task Information form.

### Cost Components

Work with cost components to change costs for a task.

Enter project task information on each of these tabs:

## Basic

Select the Basic tab.

### Description

Enter the name or description of the project or project task.

### Item Number

Enter the item number of an item that is associated with a project task. Use this field if the task consists of a manufacturing work order.

### QTY Ordered (quantity ordered)

Enter the quantity of the item. Use this field if the task consists of a manufacturing work order.

### UoM (unit of measure)

Enter a value from user-defined code 00/UM that indicates the quantity in which to express an inventory item. For example, CS (case) or BX (box). Use this field if the task consists of a manufacturing work order.

### Task Status

Enter a code from user-defined code 00/SS that describes the status of a work order, rate schedule, or engineering change order. Any status change from 90 through 99 triggers the system to automatically update the completion date.

### Shippable

Specify whether the system generates a sales order line for a project task. Project Requirements Planning uses this value to explode project-specific requirements. The project task must be a top-level manufacturing work order. The system cannot generate sales order lines from subassembly, service, or summary work orders. Values are:

Blank: Do not generate a sales order line.

**1:** Generate a sales order line.

### Alert

Enter a code that specifies whether the system sends alerts. Alerts are messages that inform you that an exception to a business process has occurred. Alerts are directed to individuals who are designated in the address book as project managers. You can specify the severity level of an alert to meet the needs of the organization. Applications that use alerts include:

- Warranty Claim/Supplier Recovery Processing (P174801Z)
- EPM Project Workbench (P31P001)
- Add/Revise Project (P31P011)
- Outbound Work Order Revisions (P4801Z1)
- Warranty Claim/Supplier Recovery Processing (P4801Z2)

Values are:

**0:** Do not send alerts.

**1:** Send alerts.

### Branch/Plant, Assigned To, Supervisor, and Manager

Display values that are provided by the project header if you have entered the information there.

## Financial Plan

Select the Financial Plan tab.

### **Estimated Material, Estimated Labor, Estimated Other, Estimated Special Units, and Estimated Special Amount**

Enter the estimated costs for the project. The method for entering estimated costs may vary depending on whether you are entering costs for summary tasks or manufacturing work order tasks.

For summary tasks, enter costs manually on this form because no production costs are available for these tasks.

You can enter estimated costs manually for work order tasks as well. However, if the item on the work order is a standard cost item (cost method 07) and standard costs exist for the item, you can use these values as a default. When you enter the work order task in the WBS, the system automatically populates the estimated cost fields with the available standard costs. The system assigns costs to the cost fields based on the cost classification scheme that you defined for the project.

The system summarizes the costs that you enter in the Estimated fields in the Summarized Cost group box at the top of the form.

### **Total Estimated and Total Planned**

Enter the estimated total and total planned costs of a task.

### **Planned Material, Planned Labor, Planned Other, Planned Special Unit, and Planned Special Amount**

Display the planned costs for a task, such as material cost, labor, and other. Planned other cost is stored in the Work Order Master Tag File table (F4801T).

Displays the number of special units that are budgeted for a task, after the acceptance of a quote.

Specifies the special amount that is planned for a task, after the acceptance of a quote.

Enter planned costs manually or have the system calculate planned costs by running the Order Processing program (R31410). If you enter costs manually and then run the Order Processing program to attach parts lists and routings to the work orders, the resulting cost information overwrites the planned cost information that you entered on the Project Workbench form.

You attach the parts list and routing to the work order to retrieve the current unit costs, as well as labor, setup, and machine rates, rolled up into the planned cost fields on the Project Workbench form. You can override these unit costs and rates manually in the Work Order Parts List (P3111) and Work Order Routing Instructions (P3112) programs. When you make changes to the costs, the system updates the planned costs.

You can update the planned cost fields from the estimated cost fields if, at the time of quote acceptance, the planned cost fields are still blank.

The costs that you enter or retrieve from various sources roll up to parent order levels, regardless of whether the parent is a manufacturing work order or a descriptive task. The system summarizes the costs that you enter on the parent level in the Planned field in the Summarized Cost group box.

## Financial Actuals

Select the Financial Actuals tab.

### **Charge To**

Enter an alphanumeric code that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant. You can assign a business unit to a document, entity, or person for purposes of responsibility reporting. For example, the system



provides reports of open accounts payable and accounts receivable by business unit to track equipment by responsible department. Business unit security might prevent you from viewing information about business units for which you have no authority.

### **Subsidiary**

Enter a subset of an object account. Subsidiary accounts include detailed records of the accounting activity for an object account.

### **Budget**

Displays the total budgeted amount that is allocated for a task.

### **Actual Material, Actual Labor, Actual Other, and Actual Special Amount**

Display the actual costs that accrue as you carry out the project. You cannot change these values on the Project Workbench form.

### **Total Actual**

Displays the actual amounts of a job. The amounts that are displayed are from the Actual Amounts (AA) ledger. This field is informational only.

### **Total Estimated**

Enter the estimated total cost of a task.

### **Total Planned**

Enter the total planned cost of a task.

## Scheduling Details

Select the Scheduling Details tab.

### **Duration**

Enter a duration for summary tasks. For work order tasks, the system uses the item's level lead time to calculate the task's duration.

**Note:** Level lead time is different for purchased and manufactured items: Purchased - The number of calendar days that are required for the item to arrive at a branch/plant after the supplier receives a purchase order. Manufactured - The number of workdays that are required to complete the fabrication or assembly of an item after all the components are available. You can enter level lead time manually in the Item Branch/Plant program, or you can use the Leadtime Rollup program to calculate it. To calculate level lead time using the Leadtime Rollup program, you must first enter a value in the Manufacturing Leadtime Quantity field in the Item Branch table (F4102).

### **Successors**

Enter a task that cannot start or finish until another task starts or finishes.

### **Fixed Task Type**

Enter a value from user-defined code 31P/TT that indicates the type of task for scheduling. Values are:

Blank: Non-Fixed. This is the default value.

**1:** Fixed Task.

## Order Details

Select the Order Details tab.

### **WO Type (work order type)**

Enter a value from user-defined code 00/TY that indicates the classification of a work order or engineering change order. You can use work order type as a selection criterion for work order approvals.

### Freeze Code

Enter a code that indicates whether the line on the order is frozen. MPS/MRP does not suggest changes to frozen orders. Values are:

**Y:** Yes, the order is frozen.

**N:** No, the order is not frozen. This value is the default.

### Percent Complete

Enter a measurement that identifies the progress that is being made on an item such as an account, work order, and so on. This is a manually updated field.

### Resources Assigned

Enter a code that specifies whether a resource is assigned to a project task. Values are:

**0:** No resource is assigned to the project.

**1:** A resource is assigned to the project.

### Priority

Enter a user-defined code (00/PR) that indicates the relative priority of a work order in relation to other orders. A processing option for some forms enables you to enter a default value for this field. The value then appears automatically in the appropriate fields on any work order that you create on those forms and on the Project Setup form. You can either accept or override the default value.

### BOM Type (bill of material type)

Enter a user-defined code (40/TB) that designates the type of bill of material. You can define different types of bills of material for different uses. For example:

- o **M:** Standard manufacturing bill
- o **RWK:** Rework bill
- o **SPR:** Spare parts bill

The system enters bill type M in the work order header when you create a work order, unless you specify another bill type. The system reads the bill type code on the work order header to determine which bill of material to use to create the work order parts list. MRP uses the bill type code to identify the bill of material to use when it attaches MRP messages. Batch bills of material must be type M for shop floor management, product costing, and MRP processing.

### Rtg Type (routing type)

Enter a value from user-defined code 40/TR that indicates the type of routing. You can define different types of routing instructions for different uses. For example:

- o **M:** Standard Manufacturing Routing
- o **RWK:** Rework Routing
- o **RSH:** Rush Routing

You define the routing type on the work order header. The system then uses the specific type of routing that you define in the work order routing. The JD Edwards EnterpriseOne Product Costing system from Oracle and the JD Edwards EnterpriseOne Capacity Planning system from Oracle use only M type routings.

### Asset Number

Enter the 8-digit number that uniquely identifies an asset.

### Asset Account

Enter a value that identifies an account in the general ledger. Use one of these formats to enter account numbers:

- Standard account number (business unit.object.subsidiary or flex format).
- Third GL number (maximum of 25 digits).
- Account ID number. The number is eight digits long.
- Speed code, which is a two-character code that you concatenate to the automatic accounting instruction (AAI) item SP. You can then enter the code instead of an account number.

The first character of the account number indicates its format. You define the account format in the General Accounting constants.

### Unit Number

Enter a 12-character alphanumeric code to use as an alternate identification number for an asset. This number is not required, nor does the system assign a number if you leave the field blank when you add an asset. If you use this number, it must be unique. For equipment, this is typically the serial number.

### Serial Number

Enter a 25-character alphanumeric number that you can use as an alternate asset identification number. You might use this number to track assets by the manufacturer's serial number. You are not required to use a serial number to identify an asset. Every serial number that you enter must be unique.

#### Note:

- *"Working with Configured Items, Understanding Configured Items and Manufacturing, Configured Item Work Order Modification in ETO" in the JD Edwards EnterpriseOne Applications Configurator Implementation Guide*

## Scheduling Project Tasks

This section provides an overview of project task scheduling, lists a prerequisite, and discusses how to:

- Define task dependencies.
- Schedule the project.

## Understanding Project Task Scheduling

To manage a project successfully over a period of time, the project manager must be able to create a project schedule that accurately reflects the time that is required to purchase and manufacture products that are needed to complete the project. Effective time and resource management is a high priority in today's business environment. Accordingly, JD Edwards EnterpriseOne Engineer to Order enables you to:

- Schedule projects using standard project constraints, such as task dependencies, fixed tasks, and resource availability.
- Import or export to Microsoft Project.

As you add tasks to the WBS for the project, you must indicate how much time is required to complete each task. For summary tasks, you must enter durations manually. For work orders, the system retrieves the duration from the level lead time that is defined for the item in the Item Branch program (P41026). It calculates the start and end dates for the task by using the duration and the system's scheduling function.

You use task dependencies to specify the sequence in which the project tasks must be performed. The types of available task dependencies enable you to schedule overlapping tasks; that is, the earlier task (predecessor) can still be incomplete when the next task (successor) starts. You can use lag time in addition to the dependencies to structure the sequence of tasks. These four types of task dependencies are available:

- Finish to Start (FS). The predecessor task must be finished before the successor task can start.
- Finish to Finish (FF). The predecessor task must be finished before the successor task can be finished.
- Start to Start (SS). The predecessor task must start before the successor task can start.
- Start to Finish (SF). The predecessor task must start before the successor task can be finished.

When defining task dependencies in JD Edwards EnterpriseOne Engineer to Order, you must observe these rules:

- You can establish dependency links between parent tasks, but not between parent and related child tasks.
- You can create a dependency between a parent task and a child task that is not related to the parent task.
- You cannot create a reverse link between tasks that are already linked. This rule helps you avoid creating a circular relationship.

You define task dependencies for subtasks that are on the same level. In this case, the planned start and end dates depend completely on the defined task dependencies.

The system enables you to modify the predecessor and successor in task dependencies, as well as enter and revise other fields relating to the task dependencies. Task dependencies are accessible in the Edit Task Dependency region of the Edit Tasks and Edit And Lock All Tasks forms in Project Workbench.

When you select a task in the project, it then appears as the successor task in the Edit Task Dependencies region. You define predecessors for the chosen task either by typing in the predecessor task number or by using a search button.

The system validates dependencies during entry to check for invalid dependencies. This functionality is similar to the functionality of MS-Project. Validation occurs when you press Tab to move out of the dependency line that you created. The system issues an error message for invalid dependencies. This table lists the dependency types that are validated:

Dependency Type	Definition
Indirect circular dependency	Indirect circular dependencies are created when a circular dependency exists across the level.  Indirect circular dependencies occur: <ul style="list-style-type: none"> <li>• While you are creating the dependencies for the tasks in the dependencies form.                               For example, two parent tasks have a dependency defined between them. Another dependency is defined between one of the parent tasks and the other parent's child task. The implicit dependency between a parent and child is considered as a bidirectional dependency.</li> <li>• While you are moving the task from one place to another.                               For example, two parent tasks have two children tasks. A dependency is defined between the two parents. A dependency is also defined between the two child tasks. If one of the child tasks is moved to the other parent, an indirect circular dependency is created.</li> </ul> Any dependency between two tasks that results in a circular dependency is an invalid dependency.
Direct circular dependency	Direct circular dependency occurs only while you are creating the dependencies for the tasks in the Edit Task Dependencies region of the Edit Tasks and Edit And Lock All Tasks forms in the Project Workbench. A direct circular dependency is created when a circular dependency is on the same level or irrespective of the levels. This works for the first level but not the other levels. Direct circular dependency can occur when two child tasks of two different tasks have dependency defined twice. That is, one dependency is defined as Predecessor-Successor and another is defined as Successor-

Dependency Type	Definition
	Predecessor. Another example of a direct circular dependency is the dependency that is defined between task A to B, B to C, C to D, and D to A.
Parent-Child dependency	<p>An explicit dependency exists between a parent task and its child task.</p> <p>Explicit dependencies between parent and child occur:</p> <ul style="list-style-type: none"> <li>• While you are creating the dependencies for the tasks in the Edit Task Dependencies region of the form.</li> <li>• While you are moving the task from one place to another.</li> </ul> <p>Consider that two parent tasks are in a project. One of the child tasks has an explicit dependency with the other parent. If the child task is moved in to the task that has an explicit dependency, then it creates an implicit dependency between the tasks that leads to a parent child dependency error. Both an implicit and explicit dependency cannot exist between two tasks. The system issues an error message to the user that an error occurred while the user was creating the task dependency that is parent/child.</p>
Duplicate dependency	Two dependencies cannot be identical.
Self dependency	The predecessor and successor task cannot be the same.

Project Workbench enables you to define the type of tasks that pertain to scheduling. You can mark individual tasks as fixed or non-fixed to lock down an individual task. Fixed tasks have to be scheduled in the time window that is assigned and cannot be manipulated outside this boundary. Forward and backward scheduling respect the constraints that are related to task types as well as honoring dates and duration when scheduling the project.

This table lists the task types:

Task Type	Definition
Non-fixed Task	This task's position in time has not been set. Its dates can be changed either by the user or moved by the system when scheduling the project.
Fixed Task	<p>Only the individual task is fixed. It is permanently set at a particular instance in time. The task cannot be automatically moved by the scheduling algorithm, and can be changed only by the user making manual modifications to the start and end dates of the task.</p> <p>A fixed task behaves differently at different levels. For a task which is at the lowest level, a fixed task means that both the start and end dates are set. However, for a task which is at a higher level and has at least one child, a fixed task means that only the task start date (in case of forward scheduling) or task end date (in case of backward scheduling) is set. The other date has to be calculated based on scheduling dependencies and the requirement that the parent task has to span the combined duration of all its children. Designating a task as a Fixed Task only causes no restrictions on the movement of its child tasks as long as they remain within the span of the parent task.</p>

Forward scheduling enables the project manager to schedule tasks from a given start date. With forward scheduling, tasks are scheduled according to their duration and dependencies so that each task begins on its earliest possible start date.

JD Edwards EnterpriseOne Requirements Planning, which generates messages that recommend work order start dates based on backward scheduling, usually agrees with dates that are created by the backward-scheduling function of the

Project Workbench program. With backward scheduling, a project manager can enter an absolute date by which the project must finish and schedule backward to determine the start date on which it must begin.

For both forward and backward scheduling, the Project Workbench program uses the task dependencies that you establish for each task to suggest correct start and end dates.

You can use the options on the Edit And Lock All Tasks form for forward and backward scheduling. If you change the dates or duration of a task, the system reschedules all tasks that depend on this task.

When you designate task types and perform scheduling, rules are in place to avoid infeasible schedules. This table lists the rules:

Task Level	Task Type	Rules
Parent Task	Fixed Task	<ul style="list-style-type: none"> <li>The task start date, end date, and duration can be modified for a fixed task.</li> <li>The duration of a fixed parent task should be greater than or equal to the highest duration of any of its children tasks.</li> <li>If any direct child tasks are fixed, the fixed parent should span to encompass the span of all its fixed child tasks.</li> <li>Only the task start date (for forward scheduling) or task end date (for backward scheduling) is pivoted. This prevents the user from having to manually balance the span depending on the duration of all its child tasks, which can be extremely cumbersome.</li> </ul>
Child Task	Fixed Task	<ul style="list-style-type: none"> <li>The task start date, end date, and duration can be modified for a fixed task.</li> <li>If the direct parent task is fixed, the span of the child task should be encompassed within the span of the fixed parent task.</li> <li>If a parent task at any level above is marked as Fixed Structure task type, the span of the child task should be encompassed within the span of this fixed task.</li> </ul> <p><b>Note:</b> A task can be a parent and a child at the same time, so both the preceding conditions can apply simultaneously.</p> <ul style="list-style-type: none"> <li>If the child task is at the lowest level in the WBS, both task start and end dates are set and cannot be modified by the scheduling algorithm.</li> <li>If the child task has other child tasks underneath, only the task start date (for forward scheduling) or task end date (for backward scheduling) is pivoted. This prevents the user from having to manually balance the span depending on the duration of all its child tasks, which can be extremely cumbersome.</li> </ul>

When you move tasks within a WBS and perform scheduling, rules are in place to avoid infeasible schedules. This table lists the rules:

Move Task	Rules
Move existing Fixed Task to make it a parent task.	<ul style="list-style-type: none"> <li>The start date, end date, and duration can be modified for a fixed task.</li> </ul>

Move Task	Rules
	<ul style="list-style-type: none"> <li>The duration of a fixed parent task should be greater than or equal to the highest duration of any of its child tasks.</li> <li>If any direct child tasks are fixed, the fixed parent should span to encompass the span of all its fixed child tasks.</li> <li>Only the start date (for forward scheduling) or task end date (for backward scheduling) is pivoted. This prevents the user from having to manually balance the span depending on the duration of all its child tasks, which can be extremely cumbersome.</li> </ul>
Move existing Fixed Task to make it a child task.	<ul style="list-style-type: none"> <li>The start date, end date, and duration can be modified for a fixed task.</li> <li>If the direct parent task is fixed, the span of the child task should be encompassed within the span of the fixed parent task.</li> <li>If a parent task at any level above is marked Fixed Structure, the span of the child task should be encompassed within the span of the fixed task.</li> <li>If the child task is at the lowest level in the WBS, both task start and end dates are set and cannot be modified by the scheduling algorithm.</li> <li>If the child task has other child tasks underneath it, only the task start date (for forward scheduling) or task end date (for backward scheduling) is pivoted. This prevents the user from having to manually balance the span depending on the duration of all its child tasks, which can be extremely cumbersome.</li> </ul>

You can forward and backward schedule a project with fixed tasks. These rules apply to both forward and backward scheduling:

- Scheduling includes a new return status to indicate the presence of infeasible schedules.
- Scheduling does not modify both the start and end date of a fixed task that is at the lowest level and does not have any children.
- Relationships between two fixed tasks are not honored, as the relationships has no meaning.

For forward scheduling:

- Scheduling should not modify the start date of a fixed task that has children underneath it. However, the system can manipulate the task end date to honor the requirement that the date span of the parent must span the combined date span of its children.
- The project start date could be affected due to the presence of fixed tasks.

When you are backward scheduling, these rules apply:

- Scheduling should not modify the end date of a fixed task that has children underneath it. However, it can manipulate the task start date to honor the requirement that the span of the parent must span the combined span of its children.
- The project end date could be affected due to the presence of fixed tasks.

The scheduling that is set up for fixed task scheduling must be validated. You can analyze the setup by clicking the Check for Conflicts button on Edit Tasks and Edit And Lock All Tasks. If you do not analyze the setup, the system performs the analysis when you save the schedule or perform scheduling.

The system determines whether the start and end dates of each task violate any explicit or implicit dependencies with another task on which the current task depends. The system also determines whether the task violates any time span rules resulting from fixed tasks. If the system finds a violation, the violating task is moved so that it no longer violates the dependency. However, if the system does not find any feasible direction to move without violating at least one of the dependencies, an infeasible schedule status is returned.

You run the scheduling algorithm by clicking the Schedule button on the Edit And Lock All Tasks form. If an infeasible schedule condition is met at any time during the scheduling process, the process stops and an error message appears. When the scheduling algorithm runs, it changes dates and durations of tasks, but only in cache, not to tables. If an error is found, the dates and durations that were changed in cache are changed back to their original values and are not saved to tables. The Scheduling Error Report displays the changed dates and durations so that you can compare them against the original values to get an idea of what caused the error. This is accomplished by saving the dates and durations that were changed into the Scheduling Error Report (F31PU101) table before changing the values in cache back to their original values. The Scheduling Error Report runs over this table and deletes the contents for the user and project when the UBE has finished. The use of the Scheduling Error Report is controlled with a processing option in the Project Workbench (P31P001) program under the Scheduling tab.

After you set up project information in the Project Workbench program (P31P001), you can export the WBS to a third-party software program, such as Microsoft Project. You can use Microsoft Project to work with task durations and dependencies. You can then import task revisions back into the Project Workbench program. If you add or delete tasks in Microsoft Project, you cannot import these changes into the Project Workbench program.

**Note:**

- *"Working with Work Orders and Rate Schedules, Understanding Work Order Backscheduling" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide .*
- *Integrating ETO with Microsoft Project.*

## Prerequisite

Before you complete the tasks in this section, ensure that the WBS includes all of the tasks that you want to schedule and that all tasks have durations assigned to them.

## Forms Used to Schedule Project Tasks

Form Name	FormID	Navigation	Usage
Edit Tasks	W31P001I	Project Workbench (G31P12), Project Workbench  On the Search for Projects form, select a project and click the Edit Tasks button.	Define and revise task dependencies for project tasks.  Check for dependency conflicts.  Schedule project tasks.
Edit And Lock All Tasks	W31P001I	Project Workbench (G31P12), Project Workbench  On the Search for Projects form, select a project and click the Edit and Lock All Tasks button.	Define and revise task dependencies for project tasks.  Check for dependency conflicts.  Schedule project tasks.



Form Name	FormID	Navigation	Usage
		On ETO Project Workbench - Edit and Lock All Task WARNING (W31P0010), select the Edit and Lock All Tasks button to continue.	

## Defining Task Dependencies

Access the Edit Tasks form or the Edit And Lock All Tasks form.

Navigate to the Edit Task Dependencies region of the form.

### Successor Task

Enter the number of the task that you want to make dependent on the predecessor task that you entered. This number corresponds to the order number of the task.

### Predecessor Task Number

Enter the number of the predecessor task. This number identifies the task on which the scheduling of the successor task is based. The relationship between the predecessor task and the successor task is defined by the dependency type.

### Predecessor Description

Displays the description of the predecessor task number.

### Dependency Type

Enter the dependency type to specify the sequence in which you want task to be performed. Values are:

**FF:** Finish to Finish

**FS:** Finish to Start

**SF:** Start to Finish

**SS:** Start to Start

These values are stored in the Dependency Type user-defined code (UDC) (31P/DT)

### Lag Time

Enter the scheduled time between dependent tasks. Depending on the lag time calculation method, the value that you enter represents an absolute amount of time of either the predecessor or the successor task.

### Descriptive Text

Enter text. This is a 75-character detailed descriptive text field to be used for miscellaneous notes or text information.

You can review the Edit Tasks form and related regions of the form in these tasks:

See *Working with a Project*.

See *Reviewing and Creating Related Orders for a Project*.

## Scheduling the Project

Access the Edit And Lock All Tasks form.

**Note:** Scheduling from the Edit And Lock All Tasks form is only at the project level.

Schedule the tasks that you entered in the WBS using the Forward Schedule and Backward Schedule buttons on the form.

To schedule tasks:

1. On Edit And Lock All Tasks, select Forward Schedule or Backward Schedule and click the Schedule button.
2. In the detail area, review the adjusted planned start and planned end dates.

The date adjustment depends on the task dependencies that you defined, as well as the duration of each task.

## Generating Quotes and Proposals

This section provides an overview of the quote and proposal generation process, lists prerequisites, and discusses how to:

- Set processing options for Project Quotes (P31P100).
- Create a quote for a project.

## Understanding the Quote and Proposal Generation Process

After you create a project in the Project Workbench program (P31P001) and add task and cost information, you can use the Project Quotes program (P31P100) to develop a detailed and structured quote that you can present to the customer for approval. If the customer accepts the quote, the company can begin work on the project. If the customer requests changes, the system enables you to revise the quote information multiple times. You can also send multiple versions of the quote to the customer. For example, you can revise cost amounts or specify whether certain lines are included in the calculation. You can then resubmit the quote version to the customer until all requirements are satisfied and the customer grants the final approval to continue with the project. If the requested changes involve adding or deleting tasks from the project, you must make these changes on the Project Workbench form and generate a new quote from the WBS.

By using the JD Edwards EnterpriseOne ETO quote generation programs, you can create a quote based on the estimated or planned costs that are associated with each task in the WBS of the project. The system enables you to import the WBS from the Project Workbench program into the quote program. The goal is to build a quote that communicates sufficient information to enable the customer to make an informed decision. Typically, the cost information in the Project Workbench program varies in its level of detail; in some cases, it contains too much detail information, and in other cases, it does not contain enough detail information for an effective quote. From the WBS, you can select the task information that you want to appear on the customer proposal. You can simplify the quote by omitting detail information that is more relevant to the actual work to be performed than to the cost estimates. Conversely, you might need to provide a detailed production cost breakdown, as well as margins that are applied to each line item. The quote program also enables you to combine individual task quote amounts into subtotals and totals, thus further enhancing the customer's ability to understand the cost of undertaking the project.

The quote process might consist of several iterations between a company and its customer. Each time that you incorporate changes into the quote, whether they are engineering-related or price-related, you create a new version of the quote to be able to track the changes to the quote. The system stores the quote versions in the Project Quote Detail table (F31P11) . Finally, you use the quote information to generate a quote document that can be transmitted to the customer. If you use e-business processes, you can use the Online Proposals program (P31P101) to communicate with the customer using the web.

When the customer accepts the quote, you also must register this event in the Project Workbench program. By choosing Accept Quote from the More Project Actions on the Project Workbench form, you manually move the project to a Quote Accept status. After you accept the quote in the Project Workbench program, you can begin the planning phase of the project.

The system provides email communication mechanisms for information about quote status. You can set a processing option to automatically notify the manager when a quote status changes. You can also define an email distribution list for the project that would, for example, enable you to communicate with the customer about the quote.

## Project Status Codes

JD Edwards EnterpriseOne Engineer to Order provides these project status codes (UDC 31P/QP) that enable you to track the progress of various quote versions:

Project Status Code	Description
Pending	The default status when the quote is generated. At this stage, the sales person, for example, can change and refine the quote as often as needed because the quote has not been forwarded to the customer. The sales person can create a new version of a quote at this stage. Several quote versions for one project can have the Pending status. When the sales person creates a proposal from the quote and sends it to the prospective customer, the quote is advanced to an Active status to enable the customer to access the proposal document.
Active	When you consider the quote information to be sufficient for preparing a sales proposal for a customer, you can change the status of the quote to Active. This status enables you to generate a sales quote that you can send to the customer.  The status indicates that a quote has been sent to the customer for review. To distinguish between changes to the original quote, you can assign this status to several versions of the quote. When you make changes to an active quote, rather than creating a new version, the changes might become difficult to track. You can have multiple active quote versions that you can send to the customer. You must assign a different name to each version of the quote that has the same status so that the customer can identify them. This status means that the customer is reviewing the quote and negotiations are still ongoing. If the customer rejects the quote, the quote author can change the status of the quote to inactive.
Inactive	The status that indicates that the quote is no longer in effect. You cannot change inactive quotes. They exist only to be archived. You might want to enter a reason for inactivating the quote.
Current	The status that indicates that the customer has accepted a quote. Only one quote per project can have this status. When a quote has this status, you can create new quotes if the project must be renegotiated. In this case, you must change the status of the current quote to inactive, provide a reason for inactivating a quote, generate a new quote, and activate it.
Complete	The status that indicates that the project is completed or abandoned and subsequently closed. When a quote has this status, you can no longer create new quotes for the project or change the quote. Only one quote per project can have this status.

## Online Quotes and Proposals

JD Edwards EnterpriseOne ETO quote enables you to communicate and send quotes online directly to the customer, thus bypassing the step of generating paper proposals. You can send quotes that have an active status. You must set up the customer with a level of security that enables the customer to sign on to the JD Edwards EnterpriseOne portal to access the Online Proposals program (P31P101).

When the customer calls the program, the system displays all quote records, but not all of the fields in each record. For example, the original estimates from the Project Workbench program (P31P001) are not visible. The customer can respond to the quote by either accepting or rejecting it. The system uses the workflow system to communicate the customer's response to designated individuals, such as the project manager. The system also notifies the customer that you received the customer's response. This process can be iterative, which enables you to enter all required changes until the customer is satisfied and accepts the quote. When the customer communicates quote acceptance, you advance the status of the quote to Current and move the project in the Project Workbench program to a Quote Accept status.

## Prerequisites

Before you complete the tasks in this section:

- Ensure that you have completed the WBS with required tasks, estimates, and schedule information.
- Configure an email distribution list by using the Structure Revisions program (P0150) in the JD Edwards EnterpriseOne Address Book system to take advantage of the notification capabilities of the Project Quotes program (P31P100).

### Note:

- *"Setting Up Parent, Child Relationships and Organizational Structures, Setting Up Parent, Child Relationships" in the JD Edwards EnterpriseOne Applications Address Book Implementation Guide .*

## Forms Used to Create Quotes

Form Name	FormID	Navigation	Usage
Work With Project Quote	W31P100B	Quotes & Proposal (G31P11), Project Quotes	Select existing project quotes.
Add Quote	W31P100E	Complete the Project Number field on the Work With Project Quote form, and click the Add button.	Create a quote for a project. Add a project quote and determine whether the quote amounts are based on estimated or planned costs.

Form Name	FormID	Navigation	Usage
Project Quote Revisions	W31P100C	Complete the filter fields on the Work With Project Quote form, click the Find button, and then select a quote.	Revise quote information and generate a sales quote.

## Setting Processing Options for Project Quotes (P31P100)

These processing options control default processing for the Project Quotes program.

### Display

These processing options control whether the system automatically includes quote records in the quote calculation and appearance, and whether you can override quote amounts on parent tasks.

#### 1. Selected for Quote Calculation

Specify whether the system enters the selection value **1** in the Selected Calc (selected calculation) column on the Project Quote Revisions form for all quote detail lines in the detail area. You can then deselect lines that you do not want to include in the quote. If you leave this processing option blank, the system does not automatically select the detail lines to appear on the quote.

#### 2. Selected For Quote Display

Specify whether the system enters a selection value of **1** in the Selected Display column on the Project Quote Revisions form for all quote detail lines in the detail area. You can then deselect any line that you do not want to include. The system displays each selected line for which a calculated price exists in the Online Proposals program (P31P101) and creates a sales quote line for each row. If the Display Calculated Total option is selected, the system calculates the total quote amount.

**Note:** You cannot override any price for parent task rows.

If you leave this processing option blank, you must enter the selection value for each line that you want to include. When doing so, you can override the price for any task on any level, but remember that the system does not calculate the total quote amount.

#### 3. Allow Override of Quote Amount on Parent

Specify whether you can override the Quote Amount at the parent task level. Values are:

Blank: Do not override.

**1:** Override.

### Default

This processing option specifies the currency that the system uses as the base currency.

#### 1. Base Currency

Specify the base currency to use as a default value for a project that is not associated with a business unit.

## Process

These processing options control whom the system notifies regarding the status of a quote.

### **1. Notify Manager on Quote Status Change to Active, 2. Notify Manager on Quote Status Change to Inactive, and 3. Notify Manager on Quote Status Change to Current**

Specify whether the manager should be notified when the quote status changes. Values are:

Blank: Do not notify.

**1:** Notify.

### **4. Notify Customer on Quote Status Change to Active**

Specify whether the customer should be notified when the quote status changes to active. Values are:

**0:** Do not notify.

**1:** Notify.

### **5. E-mail Distribution List and 6. Organization Structure Type**

Specify the distribution list for the project alert.

## Versions

These processing options control which versions the system uses when you call these programs from the Project Quotes program.

### **1. Sales Quotes Entry (P4210)**

Specify the version of the Sales Order Entry program (P4210) to run to generate the sales quote. If you leave this processing option blank, the system uses version ZJDE00018.

## Creating a Quote for a Project

Access the Project Quote Revisions form.

### Project Info

Select the Project Info tab.

This tab displays information about the project for which you are creating a quote.

#### **Display Calculated Total**

Select to indicate that you want the system to display the calculated quote total in the Total Quote Amount field on the project header.

### Quote Info

Select the Quote Info tab.

#### **Quote Version**

Displays a value that uniquely identifies a quote version. During quote calculation, the system creates many quote versions, but you can accept only one version.

#### **Quote Effective From and Quote Effective Thru (quote effective through)**

Enter the date range during which the quote is effective. The default value is the current system date.

### **Estimated Override**

Enter a quote amount that is different from the original estimate and that is based on planned or estimated costs. If you enter a value in this field, the system uses this information rather than the original estimate for calculating quote amounts.

An amount that the system budgets for a project phase or task. You complete this field if you want the system to use the estimated amount override.

### **Margin Percent**

Enter the percentage by which you want the system to extend the estimate when calculating the quote amount.

### **Selected Calc (selected calculation)**

Enter **1** to indicate that you want to include the row in the price calculation in the Quote Generation program. If you leave this field blank, the row is not included in the quote generation.

### **Selected Display**

Enter **1** in each row for which you want the system to create a sales quote to indicate that you want the system to create a sales quote line for the row.

This selection also indicates whether the system displays the row with a calculated price in the Online Proposals program (P31P101).

### **Quote Status**

Enter a user-defined code (31P/QP) that indicates the status of a project quote.

## **Related Sales Quote**

Select the Related Sales Quote tab.

### **Related Order Number**

Displays the quote number that you generate when you select Generate Quote from the Form menu.

You can review the sales quote that you created by selecting Sales Quote from the Form menu to access the Sales Order Entry program (P4210). You can review all the lines from the project quote that you chose to include in the sales quote. The system generates the sales quote records based on the line types that you assigned in the Project Quotes program.

**Note:** Even though you can make changes to the quote in the Sales Order Entry program, you should limit such changes. For the quote information in both programs to be consistent, make changes in the Project Quotes program only. The quote amount from the Project Quotes program always overrides the quote price on the sales quote detail record.





# 6 Using Project Execution and Control

## Understanding Project Execution and Control

This section lists a prerequisite and discusses project execution and control.

### Prerequisite

Set the processing options for the Enter/Change Order (P48013) and Enter/Change Rate Schedule (P3109) programs to recalculate and update parts list and routing information for the changed work order.

#### Note:

- *"Working with Issues, Material Movement, and Kanbans" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide .*
- *"Working with Completions" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide .*
- *"Working with Hours and Quantities" in the JD Edwards EnterpriseOne Applications Shop Floor Management Implementation Guide .*
- *"Working with the Manufacturing Accounting System" in the JD Edwards EnterpriseOne Applications Product Costing and Manufacturing Implementation Guide .*

## Project Execution and Control

After you freeze the budget, you begin the execution and control phase of the project. During the execution stage, you complete work orders on the shop floor and collect the actual material, labor, and machine costs that you incurred in producing the project end items. Project accounting depends on whether the project has an interface with the JD Edwards EnterpriseOne Job Cost system.

You can also revalue work-in-process inventory for the actual costed items in the project. You can use the Rollup of Actual Cost to Workbench program (R31P301) to roll up the actual cost reported to the corresponding cost buckets on the workbench, based on the cost classification scheme that you set up for the project. The rollup keeps the actual cost information in the Project Workbench program (P31P001) current, which enables you to track any variances between budgeted and actual costs.

You receive and pay for the items that you purchased as components or resale items. If you use the JD Edwards EnterpriseOne Job Cost system and you use services and contracts for the project, you can take advantage of that system's integration with the JD Edwards EnterpriseOne Contract and Service Billing systems.

JD Edwards EnterpriseOne Engineer to Order also provides several reports, such as the Project Schedule report (R31P400) and the Project Cost report (R31P401) that you can use to manage project information. If you are using the JD Edwards EnterpriseOne Job Cost system with JD Edwards EnterpriseOne Engineer to Order, you can also use JD Edwards EnterpriseOne Job Cost reports to track budget information and analyze profitability.

## Issues and Completions for Project Work Orders

When you issue project-specific components for a work order using the Inventory Issues program (P31113), the system reviews availability to verify that this component is not reserved for another project. If the inventory belongs to another project, you cannot issue the material, and you must specify another location with available inventory.

When you need more material for a project than you originally allocated, you can issue material from another location that has available quantity, provided that the material is not allocated to another project. When the total demand for a particular item is satisfied, the system removes the related record from the F410211.

Should you need to transfer project-specific inventory, the system calls the Project Commitment Detail Window program (P410211W), and you must select the project number and quantity for the transfer. You can transfer quantities that are hard-committed to projects only between locations in the same business unit, but not between business units.

When you complete a subassembly for a project work order, the system updates the parts list of the parent work order with the location and lot or serial number that you specified in the Work Order Completions program (P31114). This update associates the inventory directly with the parent work order and the project to which the work order belongs.

If the subassembly work order is only partially completed, the parts list line on the parent work order splits. The original component line contains the remaining quantity, and the system inserts a new line with the completion information.

In the event of an over completion, the system updates the related parts list line with the completion location and lot or serial number. The related project commitment record, however, represents only the original component quantity.

When you close a project work order without completing it, the project-specific component quantities remain committed. You can resolve this discrepancy by performing a repost. You can run the Repost Open Work Orders program (R3190) to synchronize the quantities on open manufacturing work orders with the project-specific commitment quantities in the F41021 table and the F410211 table.

## Net Change

You can set a processing option for the Project Workbench program to determine whether the system performs a net change. Net change updates the parts list and routing of a manufacturing work order when the order quantity, unit of measure, or dates of the work order have changed. The system calls the Net Change Processing program (R31430) to process the net change. If you set this processing option, the system processes the net change when you click Save and Close on the Project Workbench form.

**Note:** The system does not process net change for service orders, equipment orders, and configured work orders. If any of the component parts for a manufacturing work order have a material status of In Warehouse, the system cannot perform the net change.

When you change a manufacturing work order's quantity, unit of measure, or dates on the Project Workbench form, the changed work order record is stored in the Net Change Transaction table (F3115). If a parts list and routing is attached to the manufacturing work order, the system calls the Net Change Processing program to update the parts list and routing.

Net change processing:

- Recalculates the component quantities on the parts list using a quantity per value.
- Processes inventory commitments.

- Recalculates the labor and machine hours for each routing operation using an hours per value.
- Recalculates the standard and current production cost using a net change factor.
- Retrieves, classifies, and rolls up cost estimates.
- Adjusts financial commitments for work orders on projects that are integrated with the JD Edwards EnterpriseOne Job Cost system.
- Issues a warning if activities, such as issues and time entry transactions, have been recorded for the work order.

## Project Accounting Considerations

To perform financial analysis and determine profitability for a specific project, you must complete these tasks:

- Distinguish between project accounts and general accounts.
- Maintain an ETO project as a standalone cost or profit center.
- Transfer account information seamlessly from project-specific accounts to general accounts.
- Integrate other systems, such as JD Edwards EnterpriseOne Sales Order Management, with project-specific accounts.

If you do not use the JD Edwards EnterpriseOne Job Cost system, you can either create a business unit specifically for the project or use the project branch/plant as the default business unit. If you create a business unit for the project, reported costs are transparent only for the project as a whole. Actual costs are reported by task, but are not visible on a task detail level, based on the account number.

If you use the branch/plant as the default business unit, any transaction journal entries that you create are not project-specific. Even though you report costs in the Project Workbench program and they are, in this sense, project-specific, no project-specific account structure identifies project costs for financial analysis.

For project-specific accounting without JD Edwards EnterpriseOne Job Cost, you can define a project GL class code on the Job Cost tab of the Add/Revise Project form. The automatic accounting instructions use this GL class code to determine which accounts can be used for a specific project.

If you select the Interface to Job Cost option for the project, you use the job business unit and the associated chart of accounts as the business unit for the project. This account structure is project-specific.

When you issue material, such as a project-specific subassembly or a purchased item, you debit a project-specific work-in-process (WIP) and credit a project-specific inventory account. In the case of a subassembly, the system creates journal entries by cost type instead of summing up all costs into cost type A1 or A2. When completing top-level items for a project, you complete them to project-specific accounts, not general inventory accounts.

When the JD Edwards EnterpriseOne Sales Order Management system determines whether inventory for an item is available to be sold, it searches general inventory accounts first. To enable the JD Edwards EnterpriseOne Sales Order Management system to access inventory that is produced in a project, you can create duplicate journal entries that credit a contra account (AAI 3140) and debit the general inventory account, in addition to project inventory and project WIP accounts.

**Note:** The contra account AAI 3140 must be activated for project accounting in the Project Accounting user-defined code (UDC) table (31P/AI).

## Rolling Up Actual Costs to the Project Workbench

This section provides an overview of actual cost rollup to the project workbench, lists a prerequisite, and discusses how to roll up actual costs to the project workbench.

### Understanding Actual Cost Rollup to the Project Workbench

Project managers can roll up costs to the project workbench to review, at any time, the actual costs that are reported for any individual task in the project. For example, when material issues, labor, or completions are reported for a production task, the rollup collects the actual costs of these activities. A roll-up of actual costs also enables project managers to compare the estimated costs to the actual costs reported, and then analyze the cost variances, if any occur.

Use the Rollup of Actual Costs to Workbench program (R31P301) to roll up the actual cost information, which you collect for work orders throughout the production process, to these cost fields in the Project Workbench program (P31P001):

- Actual material
- Actual labor
- Actual other
- Actual special units
- Actual special amounts

Because a project consists of two different types of tasks, production tasks and nonproduction tasks, the system must retrieve costs from two different sources. Costs that are associated with production tasks are tracked through manufacturing accounting. These costs are stored in the Production Cost table (F3102). Manufacturing accounting, however, is not run for nonproduction tasks. The costs that are related to those tasks are stored in the F0911 table.

**Note:** Nonproduction tasks are posted to the Account Ledger with a batch type that is not a manufacturing batch type. However, to track those costs, you must complete the Subledger field with the task or work order number for which the costs are incurred.

Based on the cost classification for cost types and the accounts that are set up in the Cost Classification program (P31P301), the system evaluates all of the tasks in the project, retrieves their costs from either the F3102 table or the F0911 table, depending on the type of task, and updates them in the actual cost fields. The information in the cost fields is stored in the F4801T table.

### Prerequisite

Set up the cost classification table that maps cost types and accounts to the cost buckets in the Project Workbench program.

### Rolling Up Actual Costs to the Project Workbench

Select Cost Classification (G31P31), Rollup of Actual Costs to Workbench.

## Generating Project Reports and Alerts

This section provides an overview of project reports and alerts and discusses how to:

- Run the Project Schedule Report.
- Set processing options for Project Schedule Report (R31P400).
- Run the Project Cost Report.
- Set processing options for Project Cost Report (R31P401).
- Run the Project Inventory Report.
- Set processing options for Project Inventory Report (R31P402).

## Understanding Project Reports and Alerts

JD Edwards EnterpriseOne Engineer to Order provides several batch programs that enable you to manage project information during the execution and control phase of the project. They provide status and exception information. For tasks that are identified as alert-sensitive on the project workbench, the system sends alerts to the individuals who are assigned to those tasks. Each task can identify three responsible people, including the manager, the supervisor, and the person who is assigned to the task. You can set up each report to send an alert to any combination of the responsible people for each task.

JD Edwards EnterpriseOne Engineer to Order provides these reports:

- Project Schedule Report (R31P400)
- Project Cost Report (R31P401)
- Project Inventory Report (R31P402)

## Running the Project Schedule Report

Select Project Reports (G31P14), Project Schedule Report.

Use the Project Schedule report to print planned and actual start and end dates. Based on the F4801 table, you can print the information for the tasks of one project or multiple projects.

If tasks have attached purchase orders or subcontracts, information for these orders is included in the report as well. For example, you can include promised and receipt dates, quantity ordered, and quantity received.

For tasks that are identified as alert-sensitive, the system can send a schedule exception message when the actual end date is later than the planned end date by the number of days that you specify in the processing options. If the tasks have attached purchase orders or subcontracts, the system sends the alert message when the receipt date is later than the promised date by the specified number of days.

The report also compares completed work order quantities and received purchase order quantities with the order quantity. When the completed or received quantity is less than the order quantity by the threshold value that you specified in the processing options, and the order is closed or canceled, the system can send a quantity exception message. Exception messages appear on the report even if you decide not to send alert messages.

## Setting Processing Options for Project Schedule Report (R31P400)

These processing options control default processing for the Project Schedule report.

### Process

These processing options control to whom the system sends an alert and the circumstances under which the system sends an alert when you run this report.

#### 1. Send alert to Manager assigned to task

Specify whether the system sends a project alert to the manager who is associated with a task. Values are:

Blank: Do not send.

1: Send.

#### 2. Send alert to Supervisor assigned to task

Specify whether the system sends a project alert to the supervisor who is associated with a task. Values are:

Blank: Do not send.

1: Send.

#### 3. Send alert to 'Assigned To' assigned to task

Specify whether the system sends a project alert to the address book number that is specified in the Assigned To field for a task. Values are:

Blank: Do not send.

1: Send.

#### 4. Email Distribution List and Organization Structure Type

Specify the distribution list for the project alert and select the organization structure type.

#### 5. Threshold (in days) for late receipt or completion of orders from the planned end or promised date

Specify the number of days after the planned end date or promised date that orders can still be received or completed. If the threshold for late receipt or completion is exceeded, the system sends a schedule exception message for work orders to the responsible parties for work orders, and a schedule exception message for purchase orders to the appropriate personnel.

#### 6. Threshold (in percentage) of shortage from the order quantity of a Work Order or Purchase Order

Specify the allowable percentage of shortage for a work order or purchase order. If the threshold is exceeded, the system sends an exception message to the person responsible for the task. For the work order and purchase order, an exception message for the quantity is sent to the responsible parties.

### Defaults

These processing options specify the status at which a work order or a purchase order line is considered closed.

#### 1. Closed Work Order Status

Specify the status that is used to close a Work Order. If you leave this processing option blank, the system uses status code 99.

#### 2. Closed Purchase Order Line Status

Specify the next status of the order after the system closes or fully receives the detail line. If you leave this processing option blank, the system assigns a status code of 999 to closed or fully received detail lines.

## Running the Project Cost Report

Select Project Reports (G31P14), Project Cost Report.

Use the Project Cost report (R31P401) to print a list of tasks and display these cost amounts:

- WIP amount.
- Planned and estimated material, labor, other and special costs.
- Actual costs to date.
- Committed amounts from parts lists and purchase orders.

Based on the F4801 table, you can print the information for the task of one project or multiple projects.

The system calculates the WIP amount by subtracting the sum of all unaccounted completed and unaccounted scrapped amounts in the F3102 table. If the result equals zero, no exception exists, and the system does not print the WIP amount. If the WIP amount is greater than zero, the report indicates that not all of the activities for the completed amount have been reported. If the value is less than zero, the exception report states that an overcompletion exists.

The system retrieves the estimated, planned, and actual amounts for the report from the corresponding cost field in the F4801 table. The system calculates the committed amount from the open commitment amounts in the F3111 table and the F43199 table.

When the total actual cost-to-date exceeds the total budgeted cost by the percentage that you specified in the processing options, the system creates a budget exception message for alert-sensitive tasks. If a task has a related purchase order or subcontract, and the amount received exceeds the extended cost by the percentage that you specified in the processing options, the system sends an over-payment exception message.

The exception messages appear on the report even if you decide not to send alert messages.

## Setting Processing Options for Project Cost Report (R31P401)

These processing options control default processing for the Project Cost Report.

### Process

These processing options control when and under what circumstances the system sends an alert when you print this report. You can also specify whether the system includes the WIP amount when it calculates budget exceptions.

#### 1. Print Budgeted costs from

Specify the source for the budgeted cost on the report. If you leave this processing option blank, the system uses the estimated cost as a source. Values are:

**1:** Estimated cost

**2:** Planned cost

#### 2. Send alert to Manager assigned to task

Specify whether the system sends a project alert to the manager who is associated with a task. Values are:

Blank: Do not send.

1: Send.

### 3. Send alert to Supervisor assigned to task

Specify whether the system sends a project alert to the supervisor who is associated with a task. Values are:

Blank: Do not send.

1: Send.

### 4. Send alert to 'Assigned To' assigned to task

Specify whether the system sends a project alert to the address book number that is specified in the Assigned To field for a task. Values are:

Blank: Do not send.

1: Send.

### 5. Email Distribution List and Organization Structure

Specify a distribution list for sending the project alert, and select an organization structure for the distribution list.

### 6. Threshold (in percentage) of Budget vs. Actual Cost variance

Specify the enabled variance percentage between budgeted and actual costs. If the threshold is exceeded, the system sends a budget exception message to the responsible parties.

### 7. Threshold (in percentage) of Over-Receipts from the cost of the Purchase Order

Specify the enabled percentage of over-receipts relative to the cost of the purchase order. If the percentage threshold is exceeded, the system sends an overpayment exception message to the responsible parties.

### 8. Include WIP value as part of the calculation of Actual costs for calculating the Budget Exception

Specify whether the WIP amount should be included in the actual cost when the system calculates the budget exception. Values are:

Blank: Do not include.

1: Include.

## Running the Project Inventory Report

Select Project Reports (G31P14), Project Inventory Report.

Use the Project Inventory report to print the parts lists for tasks, if any are available. Based on the F4801 table and the F31P01 table, you can print the information for the tasks of one project or multiple projects. For each component on the parts list, the system calculates and prints the open quantity, that is, the order quantity minus the issue quantity up to the order quantity. For each component the system searches the F41021 table to determine the available quantity.

When a task is alert-sensitive, the available quantity is negative by the threshold value that you specified in the processing options, and the open quantity is greater than zero, the system can send an exception message regarding item availability.

The exception messages appear on the report even if you decide not to send alert messages.



## Setting Processing Options for Project Inventory Report (R31P402)

These processing options control default processing for the Project Inventory report.

### Process

These processing options control when and under what circumstances the system sends an alert when you print this report.

#### 1. Send alert to Manager assigned to task

Specify whether the system sends a project alert to the manager who is associated with a task. Values are:

Blank: Do not send.

1: Send.

#### 2. Send alert to Supervisor assigned to task

Specify whether the system sends a project alert to the supervisor who is associated with a task. Values are:

Blank: Do not send.

1: Send.

#### 3. Send alert to 'Assigned To' assigned to task

Specify whether the system sends a project alert to the address book number that is specified in the Assigned To field for a task. Values are:

Blank: Do not send.

1: Send.

#### 4. Email Distribution List and Organization Structure Type

Specify a distribution list for sending the project alert.

#### 5. Threshold (absolute value) for negative availability

Specify the threshold for negative availability. If the threshold is exceeded, the system sends a message to the responsible parties, alerting them to the condition.

## Closing a Project

This section provides an overview of the project close process and discusses how to:

- Run the Project Close Analyzer program.
- Set processing options for Project Close Analyzer (R31P403).

## Understanding the Project Close Process

As the project approaches its scheduled completion date, you must review the project information to identify activities that still need to be performed for the project. Ensure that all manufacturing and purchasing activities have been either completed or canceled, and that all products that must be delivered to the customer have been shipped.

If the project has an interface with the JD Edwards EnterpriseOne Job Cost system, you can use Job Cost reports and batch programs to create financial reports for analysis and profit recognition.

To close a project formally, you use the Close Project option on the Form menu of the Project Workbench form. Choosing the Close Project option automatically starts the Project Close Analyzer program (R31P403), which determines whether the system has all of the information that it needs to close the project. After you close the project, the project status changes to Closed. You can verify this information on the Project Status of the Add/Revise Project program (P31P011).

## Running the Project Close Analyzer Program

Select Project Reports (G31P14), Project Close Analyzer.

Use the Project Close Analyzer program (R31P403) to analyze the work breakdown structure (WBS) to determine whether a project can be closed. The system also calls this program when you attempt to close the project from the Project Workbench form. You can run this batch program for only one project at a time. When the program finishes running, it returns a value that indicates whether the project can be closed.

The program reviews every task to determine whether any of these issues exist:

- Manufacturing work orders have not been canceled or closed.
- Parts lists have open inventory commitments.
- Purchase orders are still open.

If any of these issues exist for any task in the project, you must resolve the issues before you can close the project.

### Note:

- *"Recognizing Profit" in the JD Edwards EnterpriseOne Applications Job Cost Implementation Guide* .

## Setting Processing Options for Project Close Analyzer (R31P403)

These processing options control default processing for the Project Close Analyzer program.

### Defaults

These processing options control default values that the program uses to determine whether you can close a project.

#### 1. Enter the closed status for Sales Order lines

Enter the status at which the system considers sales order lines closed. If you leave this processing option blank, the system uses a status of 999.

#### 2. Enter the closed status for Purchase Order lines

Enter the status at which the system considers purchase order lines closed. If you leave this processing option blank, the system uses a status of 999.



# 7 Glossary

## Project Number

Specify a number that identifies an engineer-to-order project in the system. You set up the project in the Add/Revise Project program (P31P011).

## Task Number

Specify a number that identifies a task in an engineer-to-order project in the system. You set up the project tasks in the Project Workbench program (P31P001).

## Task Type

Enter a value from user-defined code (UDC) 00/DT that identifies the type of document. This code also indicates the origin of the transaction. The system has reserved document type codes for vouchers, invoices, receipts, and time sheets, which create automatic offset entries during the post program. (These entries are not self-balancing when you originally enter them.) These document types are defined by the system and should not be changed:

- P:** Accounts Payable documents
- R:** Accounts Receivable documents
- T:** Payroll documents
- I:** Inventory documents
- O:** Purchase Order Processing documents
- J:** General Accounting/Joint Interest Billing documents
- S:** Sales Order Processing documents
- ET:** Engineer to Order



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