JD Edwards World

Shop Floor Control - Discrete Guide

Release A9.4

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Describes the material plan of discrete manufacturing by managing the flow of materials inside the plant. Manages and tracks manufacturing work orders and rate schedules, maintains and communicates status information regarding materials, work centers, routings, and end operations to complete production requests.

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JD Edwards World Shop Floor Control - Discrete Guide, Release A9.4

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Preface

Welcome to the JD Edwards World Shop Floor Control - Discrete Guide.

Audience

This document is intended for implementers and end users of JD Edwards World Shop Floor Control - Discrete system.

Documentation Accessibility

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Indicates cautionary information or terms defined in the glossary.
italic	Indicates book titles or emphasis.

1

Overview to Shop Floor Control - Discrete

The JD Edwards World Shop Floor Control system implements the material plan by managing the flow of materials inside the plant. An effectively managed Shop Floor Control system serves as a mediator between production control and the shop floor. It allows you to manage and track manufacturing work orders and rate schedules. It utilizes data from the shop floor to maintain and communicate status information regarding materials, work centers, routings, and end operations required to complete the production requests.

This chapter includes the following topics:

- Section 1.1, "Features,"
- Section 1.2, "Process Flow,"
- Section 1.3, "Tables for Shop Floor Control,"
- Section 1.4, "Types of Manufacturing,"
- Section 1.5, "Enterprise Requirements Planning and Execution System,"
- Section 1.6, "System Integration,"
- Section 1.7, "Sales Order Management System,"
- Section 1.8, "Procurement System."

1.1 Features

The following graphic illustrates the features available to you in the Shop Floor Control system. These features are described in detail following this graphic.

Figure 1–1   Shop Floor Control System Features
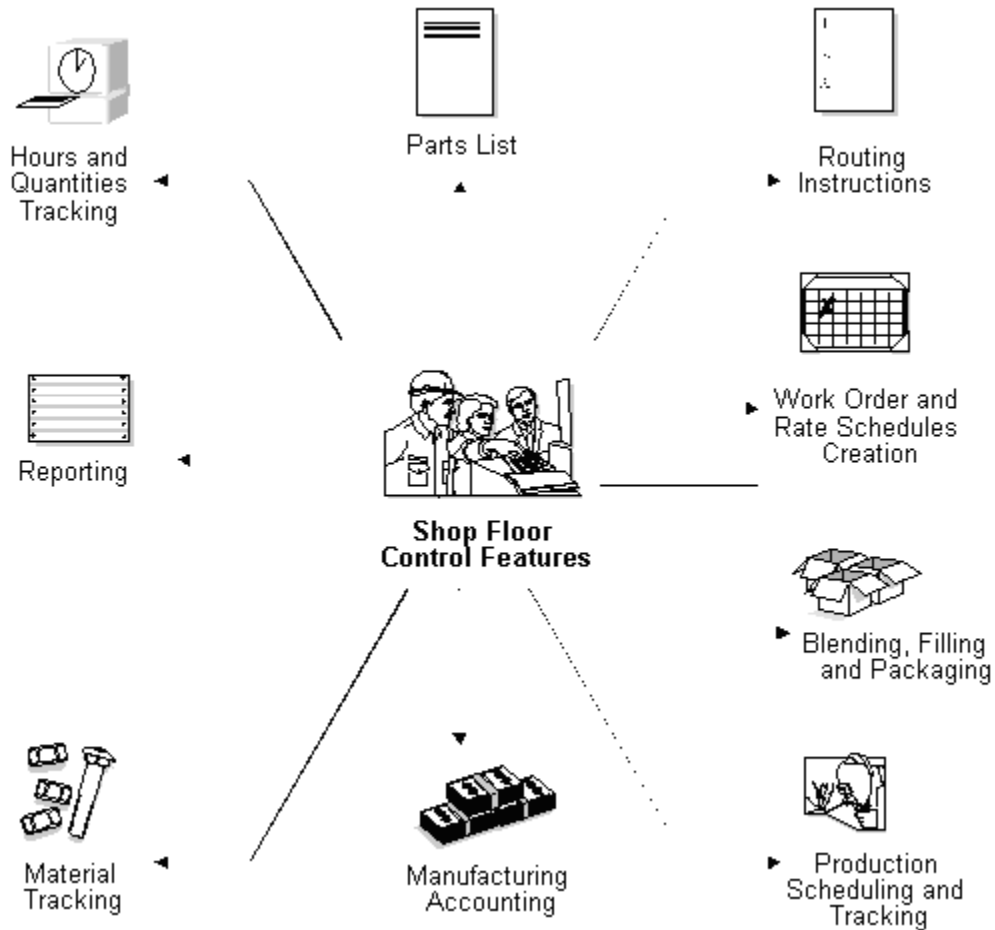
Hours and Quantities Tracking

- Enter and track time and quantities completed and scrapped by work order and by employee

- Allocate and track resource usage by work center per calendar month

- Review and analyze reports of work orders with detail by operation of standard versus actual for:

Setup, labor, and machine time

Quantity complete and scrapped

- Charge actual hours and quantities to a work order as each manufacturing step is completed

Routing Instructions

- Generate a routing automatically when a work order is processed

- Use master routings or non-standard routings for items and indicate when to use each item

- Change the work centers and procedures for each operation on the routing

- Modify the sequence and status of each operation on the routing

- Make real-time modifications to routing instructions

■ Display quantity ordered, completed, and scrapped for each operation

Work Order and Rate Creation

■ Enter work orders and rates manually+

■ Create work orders and rates automatically from Material Requirements Planning (MRP) by answering action messages, or from sales order entry and select kits for assemble-to-order environments

■ Generate shop floor paperwork automatically, including standard parts lists and routing instructions

■ Differentiate work orders and rates by type, priority, and status

■ Group work orders by a parent number (a useful feature for job numbers that contain many work order numbers)

■ Automatically generate purchase orders for sub-contracted operations on the routing for work orders and rates

Blending, Filling, and Packaging

■ Produce and track work orders for the filling and packaging of lube oil finished goods when only one product is produced with no co- or by-product requirements

Production Scheduling and Tracking

■ Schedule work center production for rate schedules, work orders, or both

■ Track and compare planned production schedules against actual schedules

■ Use the online scheduling workbench to review, dispatch, and update production scheduling information in real-time

■ Calculate start and complete dates for each work order by operation from the Shop Floor Control Routing Instructions table (F3112)

■ Maintain the rate schedule after using rate based MRP

Manufacturing Accounting

■ Plan and track standard costs for setup, labor, material, and overhead

■ Compare planned costs against actual costs and calculate a variance amount

■ Create journal entries to charge actual and variance costs to a work order or rate schedule in the general ledger

■ Track weighted average costs, for setup, labor, material and overhead

Material Tracking

■ Create a parts list automatically when you process a work order

■ Display the quantity on order, on hand, and available for each part

■ Access detailed information about supply and demand quantities

■ Check the availability of the components required to manufacture a parent item and generate a shortage list

■ Issue the parts to a work order using a manual, preflush, or backflush method

■ Backflush both quantities of components issued to a work order and the labor expended with pay point operations

■ Enter and track completions to inventory when parent items are completed

- Attach the parts list and routing instructions to the work order and print shop floor paperwork

- Track where lots are used, and split and trace where lots come from with advanced lot control

- Maintain and monitor work orders created from the Configuration Management system for configured items

- Generate an inventory shortage list by work order and item

- Enter issue transactions for inventory items associated with a work order

- Generate a picking request in the Warehouse Management system to select a location and move the inventory (this occurs after the Manufacturing system creates a parts list without a work center attached, and checks availability)

Reporting

- Run reports that compare actual values with planned values and indicate the variance between the two

- Run shortage reports by item or work order to identify potential manufacturing constraints due to a lack of availability of required components

- Print shop floor paperwork, such as work orders, parts lists, and routings for items

- Review daily shop work lists to monitor job status, identify queue problems at work centers, and flag other areas, such as engineering changes or lost material

1.2 Process Flow

The following graphic illustrates all of the processes involved in the Shop Floor Control system. The arrows show the flow from process to process, beginning with a work order and ending with an inventory completion.

Figure 1–2   Shop Floor Control System Processes

Work Orders
and
Rates

Attach

Routing
Instructions

Parts
List

Perform
Commitments

Availability

Pick/Issues

Schedule
Work

Payroll
(optional)

Record Hours
and Quantities

Post

Super Backflushing

Completion to
Inventory
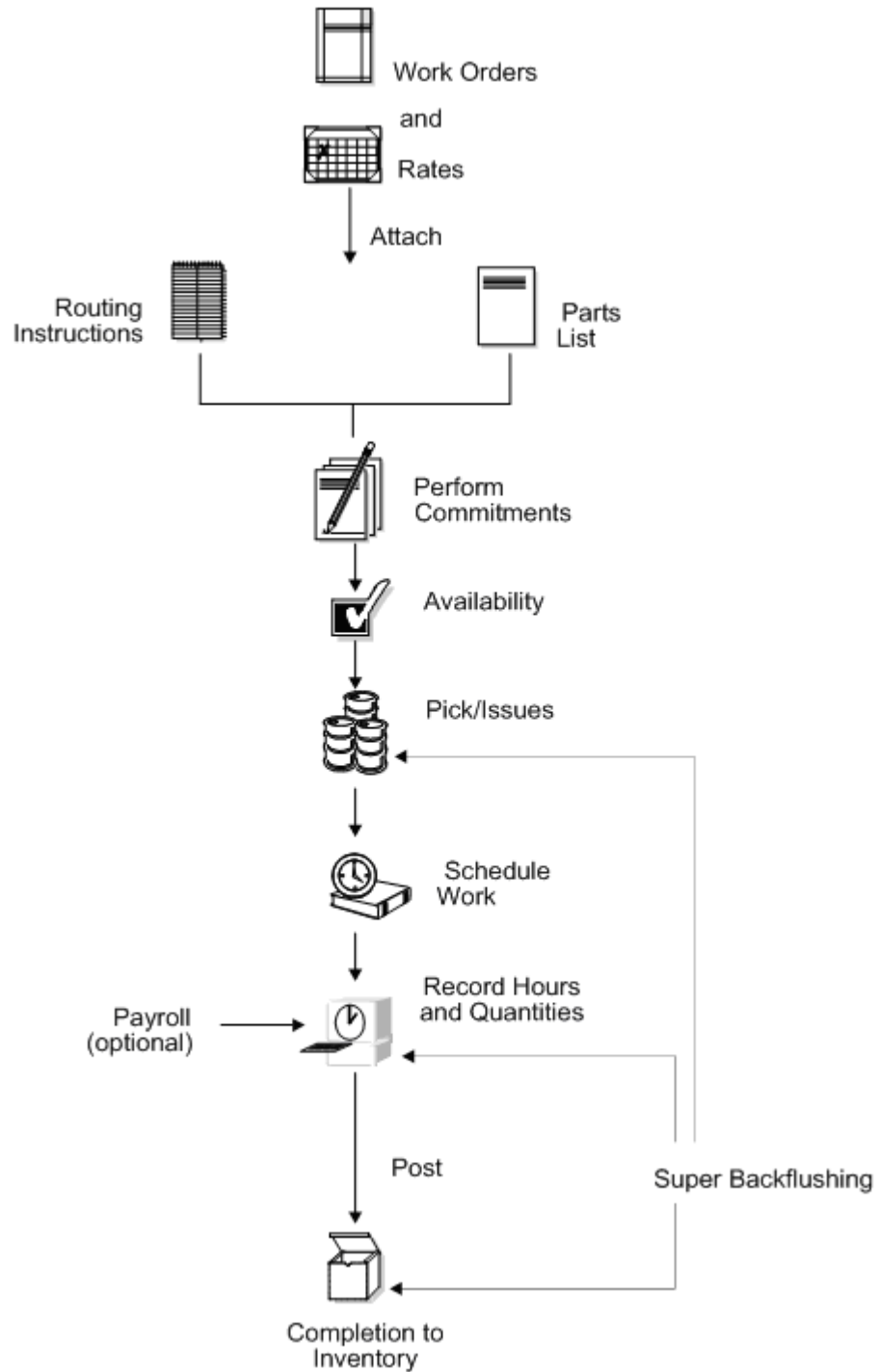
1.3 Tables for Shop Floor Control

The following is a list of the tables used throughout the Shop Floor Control system:

Table	Description
Business Unit Master (F0006)	Identifies branch, plant, warehouse, and business unit (entity) information, such as company, description (name), and category codes assigned to that entity.
Generic Message/Rate (F00191)	Contains codes that correspond to a text message. In the Shop Floor Control system, this is used for routing text on a work order.
Account Master (F0901)	Maintains the account data for the general ledger.
Account Ledger (F0911)	Stores the transaction records for the general ledger.
Work Center Master (F30006)	Contains detail data about all defined work centers.
Bill of Materials Master (F3002)	Defines and maintains warehouse (plant level) information about bills of materials, such as quantities of components, as well as features, options, and levels of detail for each bill.
Item Cost Component Add-Ons (F30026)	Contains frozen standard costs for journal entry creation for work orders.
Routing Master (F3003)	Stores routing information, including operation sequences, and work centers, as well as run, setup, and machine time.
Job Shop Manufacturing Constants (F3009)	Contains general branch/plant information.
Kanban Master (F3016)	Contains the set of kanban cards associated with an item. Each kanban defines the supplying location, consuming location, quantity, and unit of measure. The system uses next numbers to control the kanban identification number. If the system pulls the item from an external source, the supplier's number is included.
Work Order Variance (F3102)	Stores the work order variance that shows the difference in costs from when the standards were set at the beginning of the accounting period.
Work Order Serial Numbers (F3105)	Contains the fields that identify work order assemblies with lot serial numbers.
Item/Line Relationship Master (F3109)	Stores the relationships between items and production lines. The system uses one of the records as the default rate generation rule.
Schedule Quantity Detail (F31091)	Contains the daily quantities making up a work order or a rate. The system uses this file for scheduling and sequencing production lines and work centers.
Shop Floor Control Parts List (F3111)	Contains the components used on a work order.
Shop Floor Control Routing Instructions (F3112)	Contains the instructions specific for manufacturing work orders.
Work Order Time Transactions (F31122)	Stores the labor transactions reported on a work order.
Shortage Maintenance Master (F3118)	Contains component shortages for work orders.
MPS/MRP/DRP Message (F3411)	Contains the supply and demand relationship among the branches.
Forecast (F3460)	Contains the forecast data that Resource Requirements Planning (RRP) validates. It is then used as input to MPS/MRP/DRP.

Table	Description
Inventory Constants (F41001)	Used to control day-to-day transactions that occur within the Inventory Management system. Directs the nature of certain integrated operations between Inventory Management and other systems, such as Sales Order Management, Procurement, and General Accounting.
Item Master (F4101)	Stores basic information about each item defined for inventory, such as description, search name, and units of measure.
Item Branch (F4102)	Defines and maintains warehouse or plant level information, such as costs, quantities, category codes, and physical locations.
Item Location (F41021)	Specifies all inventory locations for an item.
Item Cross Reference (F4104)	Enables you to relate item numbers for a specific purpose.
Lot Master (F4108)	Defines the actual potency of a lot.
Item Ledger (F4111)	Stores transaction history for all items.
Item History (F4115)	Stores usage data for items optional in some Shop Floor Control system transaction programs.
Warehouse Requests (F4600)	Stores putaway, picking, and replenishment movement requests.
Warehouse Suggestions (F4611)	Contains the warehouse requests after they have been processed by putaway, picking, or replenishment.
Work Order Master (F4801)	Stores the work order information, such as item numbers, quantities, and dates.
Work Order Instruction/Disposition (F4802)	Contains text and instructions for specific work orders that are identified by different record types.

1.4 Types of Manufacturing

Depending on the type of product being produced, almost all manufacturing can be defined in one of two ways:

- Discrete
- Process

Both discrete and process manufacturing use bills of material and routings. The bills of material contain individual parts or components, such as a nut, bolt, wire, plastic, or metal part of a fixed or variable quantity. Products can be broken down into subassemblies that go into various larger assemblies.

1.5 Enterprise Requirements Planning and Execution System

Shop Floor Control is one of the many systems that make up the Enterprise Requirements Planning and Execution (ERPx) system. The ERPx system enables you to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. ERPx is fully integrated and ensures that information is kept current and accurate across all your business operations. It is a closed-loop manufacturing system that formalizes the activities of company and operations planning, as well as the execution of those plans.

The following systems make up the JD Edwards World ERPx product group.

Figure 1–3   JD Edwards World ERPx Product Group Systems

ERPxE

Enterprise Requirements Planning and Execution
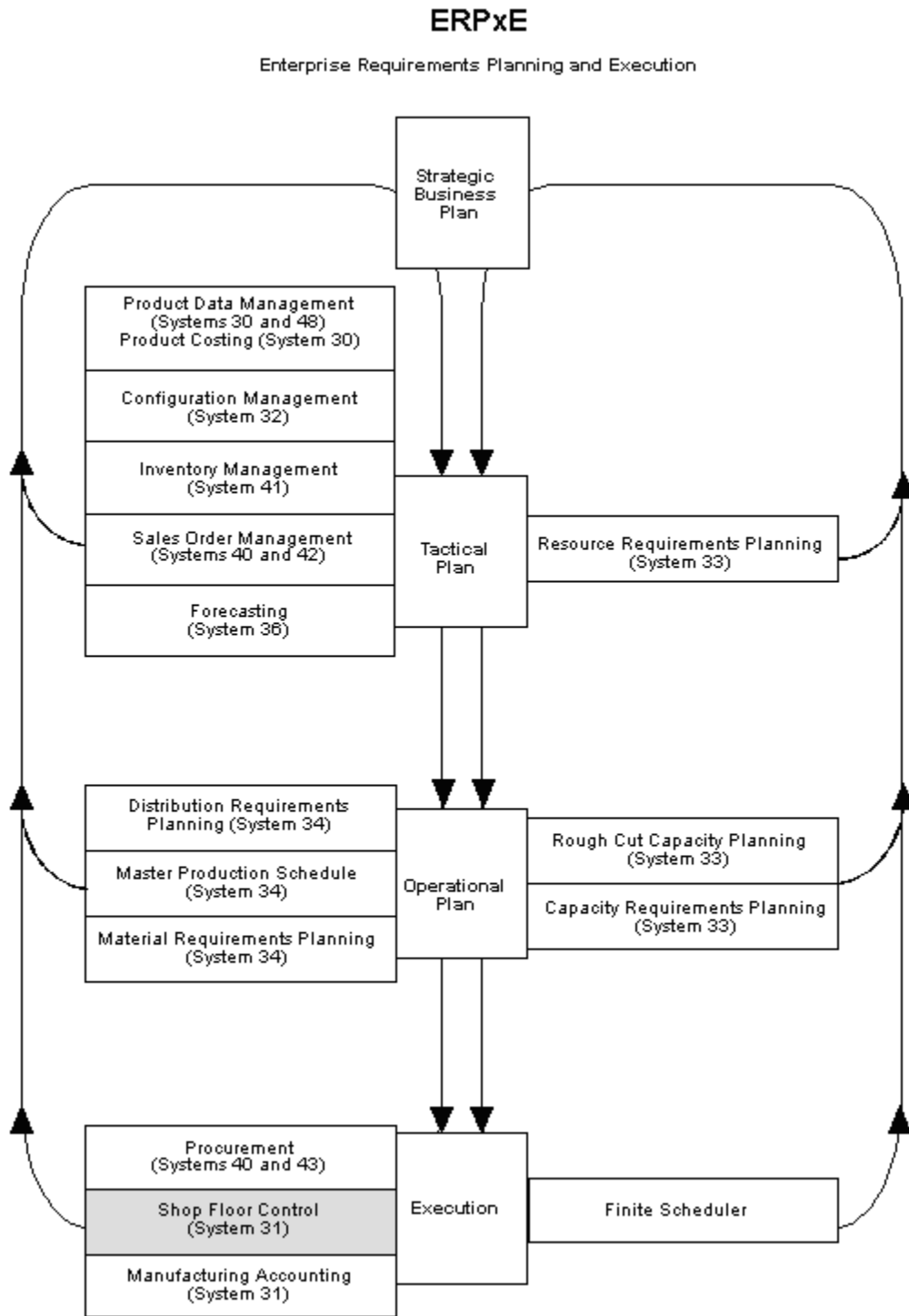
1.6 System Integration

The Shop Floor Control system integrates with other JD Edwards World systems to take advantage of single entries, information sharing, and data consistency across systems.

Figure 1–4   Shop Floor Control System

Shop Floor Control

Product Data Management →

DRP/MPS/MRP →

Procurement →

← Inventory Management

← Warehouse Management

Sales Order Management

Quality Management   Payroll   Capacity Requirements Planning

DPS = Distribution Requirements Planning
MPS = Master Production Schedule
MRP = Material Requirements Planning

- The Product Data Management system provides information about bills of material, work centers, and routings.

- The Inventory Management system allows you to track materials between inventory or storage locations and the shop floor. You can perform inventory issues, commitments, and completions, and track order quantities throughout the production process.

- The Sales Order Management system allows you to generate work orders when you enter a sales order and updates sales information from within the Shop Floor Control system.

- The Capacity Requirements Planning system reads the routings for work orders and rate schedules and monitors the load on the work centers involved. This allows you to effectively manage the loads on your work centers to maximize production and meet scheduled demand.

- The Payroll system interface allows single entry of employees' hours. You can record hours and quantities per work request or per employee to accommodate both piece-rate and hourly rate employees.

- The Procurement system allows you to automatically generate purchase orders for subcontracted operations on your routings.

- The Distribution Requirements Planning, Master Production Scheduling, and Material Requirements Planning systems provide suggested purchase and manufacturing orders required to maintain a valid production schedule.

- The Warehouse Management system allows you to originate picking requests through Manufacturing systems, which further enhances the automated method of tracking inventory movement within a warehouse.

1.7 Sales Order Management System

Order entry is a process of accepting and translating what the customer wants into terms used by the manufacturer or distributor. Sales order entry is the main input to tracking the accuracy of the master production schedule.

There are three levels of sales order entry:

- Basic - Create shipping documents for make-to-stock finished goods
- Advanced - Create assembly orders for assemble-to-order products stocked at lower levels
- Complex - Create design project orders to develop, prototype, and test engineer-to-order products

Sales order entry has operational guidelines in which it must:

- Produce output corresponding to items in inventory or parents in the bill of material
- Be used on an as-occurring basis in order to properly reflect available-to-promise

1.7.1 Features of Sales Order Management

The main features of Sales Order Management can be divided into three categories: Simplicity, flexibility, and adaptability.

1.7.1.1 Simplicity
- Automatic order numbering
- Automatic, multiple choices of costing
- Automatic, flexible pricing, including specials and contracts
- Automatic online credit check with order hold online
- Online order summary and total with tax calculation
- Efficient customer billing

1.7.1.2 Flexibility
- User defined order types, transaction types, and transaction flow
- User controlled format and functions of order entry form
- Messages for specifications and instructions
- Multiple customer, bill-to, and ship-to addresses
- Back order control and online back order release
- Hold order processing and online release
- Individual or batch order printing
- Online or batch printing
- Serial number tracking

1.7.1.3 Adaptability
- Item substitutions and replacements
- Multiple shipments and invoices per order

- Credit processing for returned goods

- Comprehensive sales and tax data collection

- Direct ship

- Transfer orders to create purchase and sales orders

- Direct interfaces to Address Book, Accounts Receivable, Inventory Management, and General Ledger systems

1.8 Procurement System

Purchasing is the execution of the internal schedule through the acquisition of material or services from an external source. You use the Procurement system to obtain the best quality parts at the most reasonable rates at the correct time. After you enter a purchase order and its detail information, you can record the receipt of an order line.

1.8.1 Features of Procurement

The main features of purchasing can be divided into three categories: Simplicity, flexibility, and adaptability.

1.8.1.1 Simplicity

- Automatic order numbering

- Automatic, multiple choices of costing

- Automatic, flexible pricing, including specials and contracts

- Automatic online credit check with order hold online

- Online order summary and total with tax calculation

- Efficient customer billing

1.8.1.2 Flexibility

- Combined inventory and non-inventory purchasing. This allows purchase order lines to send receipt costs to inventory or to a general ledger account or a project.

- Budget checking for general ledger account purchases. You can use one of three budget checking methods against user-selected budget ledger type.

- Requisition management. This permits an order to flow through an online requisition process prior to the actual approval of the order for purchase.

- User defined order types, transaction types, and transaction flows. This gives wide-ranging flexibility for setup and customization without programming changes.

- Unit or extended receipt costing. The system can calculate the correct extended amount or unit cost, depending upon your usage.

- Ease of data changes for order line delivery. You can also make data changes for multiple orders at the same time.

1.8.1.3 Adaptability

- Multiple receipts, or receipt with a cancel remaining, or open order line cancel allowed, as required

- Fully integrated with other JD Edwards World systems, including Inventory Management, Accounts Payable, General Accounting, and Address Book systems

- A matching function in Accounts Payable and Procurement receipts provides for changes to purchase order cost based upon customer invoice

- Buyers' reports and forms display purchase order quantities based on item-specific reorder point and economic order quantity

- Purchase Order Generator to simplify purchase order creation, including online view of economic order quantity, re-order point, and days stock available

- Change order controls, which furnish detail records of changes

- Model purchase orders and blanket orders providing easy duplication and release of prior orders without additional order entry keying

Part I

Discrete Manufacturing

This part contains these chapters:

2

Overview to Discrete Manufacturing

This chapter contains these topics :

- Section 2.1, "Objectives,"

- Section 2.2, "About Discrete Manufacturing."

2.1 Objectives

- To learn how to attach a parts list and routing instructions to a work order

- To understand how, when, and where to make commitments

- To understand how availability is calculated and how to track shortages

- To identify the four methods of issuing materials

- To enter hours and quantities and post them to the manufacturing system

- To learn how to record completions and release backorders

2.2 About Discrete Manufacturing

Discrete manufacturing produces products, such as tables or bicycles, using resources or parts. Discrete manufacturing is usually characterized by the strategy used, such as:

- Make-to-stock, using either a highly repetitive or process order based system

- Any of the "to-orders," such as make-to-order, assemble-to-order, or engineer-to-order

- The one-off or job shop environment

Cars, furniture, electronics, and airplanes are examples of products of discrete manufacturing.

Discrete manufacturing consists of the following:

- Understanding work orders

- Creating work orders

- Processing work orders

- Understanding commitments

- Working with commitments

- Understanding grade and potency

- Understanding lot processing

- Entering lot information
- Working with lot availability
- Viewing lot transactions
- Reclassifying lots (optional)
- Reviewing availability and shortages (optional)
- Understanding issue transactions
- Issuing materials
- Scheduling work orders
- Working with hours and quantities
- Completing work orders
- Revising the status of work orders
- Process kanbans
- Reviewing information (optional)
- Printing Discrete Manufacturing reports (optional)

2.2.1 Blending, Filling, and Packaging

JD Edwards World has enhanced the Manufacturing systems to manage the manufacturing of bulk blended and filled products. These enhancements include accounting for gains and losses, recording ambient and standard quantity variations, and the reconciliation of bulk products in tanks.

See Also:

- *JD Edwards World Bulk Stock Management Guide*.

2.2.2 How Are Units of Measure Used?

Not all items are planned, scheduled, or produced in their primary unit of measure. To accommodate this, full unit of measure capabilities are allowed throughout the Shop Floor Control system.

Most entry programs have a unit of measure next to the quantity fields, and the unit of measure is stored in the database tables, along with the quantities. The system uses three fields in the Item Master table, Component Unit of Measure, Production Unit of Measure, and Primary Unit of Measure, throughout shop floor as defaults in entry forms. The Primary Unit of Measure must be the smallest of the three units of measure.

2.2.3 Transactions in Shop Floor Control

The following graphic illustrates the transactions throughout the Shop Floor Control system. You will see this graphic throughout this guide, with different areas highlighted to indicate where you are in the process.

Figure 2–1   Shop Floor Control System Transactions
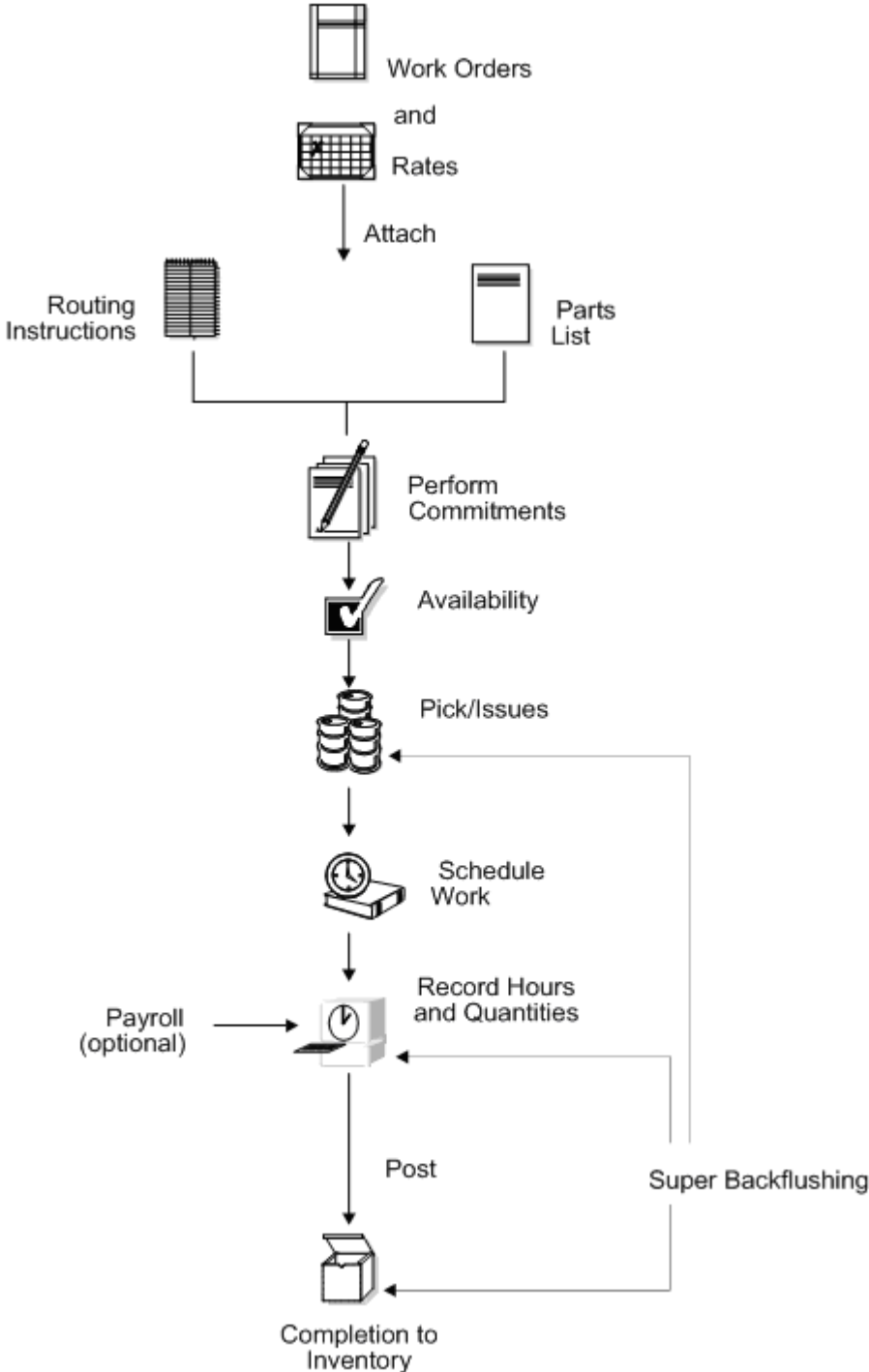
3

Understand Work Orders

This chapter contains these topics:

Work orders consist of a work order header, a parts list, and routing instructions. The work order header specifies the quantity of the item requested and the date it is required. The parts list and routing instructions specify the components, operations, and resources required to complete the work order.

3.1 About Work Orders

You create a work order header using one of three methods:

- MRP

- Manually

- Work Order from Sales Order

You then attach the parts list and routing instructions either manually or using a batch program. This batch program also allows you to process multiple work orders, which includes:

- Updating the status of each work order

- Supplying the date to use for effectivity checking

- Issuing inventory

- Printing shop paperwork

- Calculating standard costs for configured items

- Allowing substitute items to be used

Usually, you enter all of the work order headers and then attach the parts lists and routing instructions together, to create the work order, using the batch program (Order Processing). However, if you need to change a part on the work order parts list or

specify substitutes, you must manually attach the parts list and routing instructions, or manually change them after you run the batch program.

When you manually attach routing instructions to your work order, you can identify the percent of run time a sequence can overlap the previous operation.

The following graphic illustrates the work order structure.

Figure 3–1   Work Order Structure
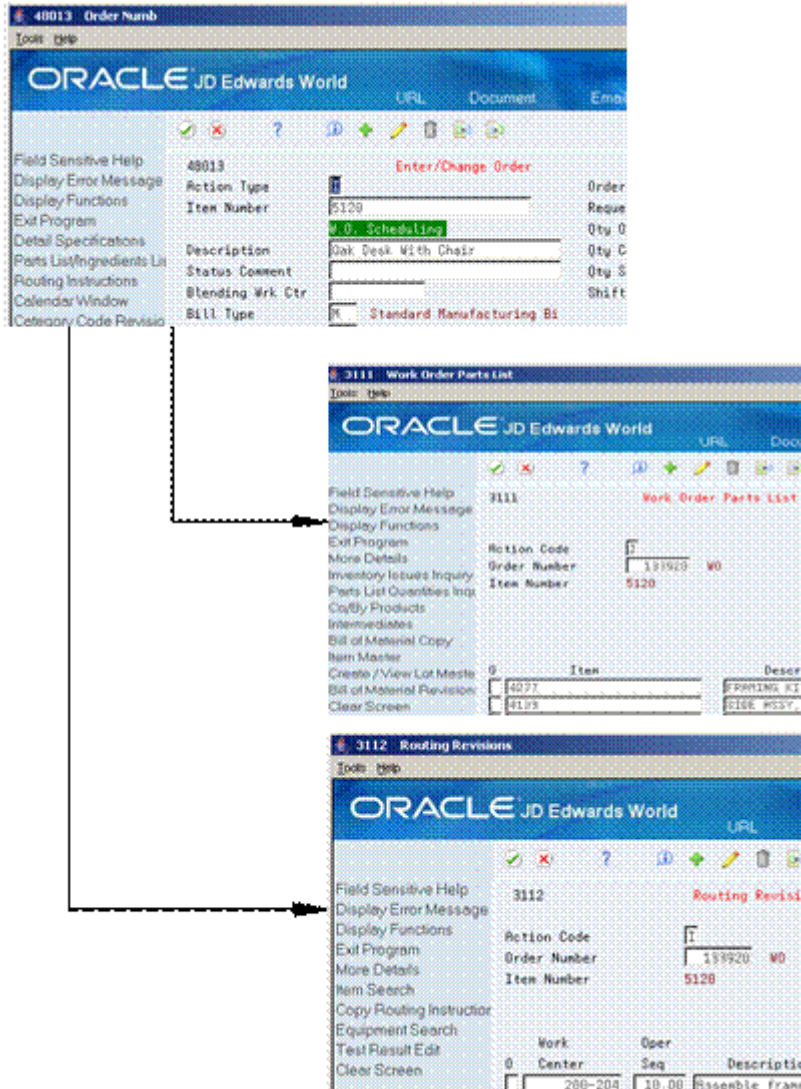
Regardless of the method you use to attach the parts list and routing instructions, you can define the unit of measure to be used for backscheduling the work order. To do so, you use the processing options for both the Enter/Change Order and the Order Processing programs.

After you determine the resources required to produce the items requested, you can schedule the work order and begin the work. As you complete items on the work order, you report:

- Items completed
- Materials used

- Quantities scrapped

- Hours of machine and personnel time expended

You can report completions by operation so you can track work order activity as it is in process. Using the feature cost percent for configured items and the resource percent for process items, you can also calculate costs by operation and track inventory throughout the production process.

This section contains the following:

- What Happens When You Attach a Parts List?

- When Do You Attach Routing Instructions?

- How Does the System Calculate the Start Date?

- What Is Shop Paperwork?

- What Is Backscheduling?

- Blending, Filling, and Packaging

3.2 What Happens When You Attach a Parts List?

You attach the parts list after you enter a work order header. A parts list is a list of the components and their quantities required to complete the work order. You can attach the parts list:

- Manually

- By setting a processing option in order entry to automatically attach it after the routing is attached

- Automatically, using Order Processing

You attach a parts list using the batch program the same way as attaching a parts list manually (non-batch). For batch bills and routings, the system determines which parts list to use by matching the work order quantity for the bill type specified on the work order header. If the system does not find a batch size that matches, it looks in the following order until a match is found:

- Specified bill type with a zero batch quantity

- Type M bill with the specified quantity

- Type M bill with a zero batch quantity

If no match is found, no parts list is attached, and you must attach the parts list manually.

Components are included in or excluded from the parts list for a work order based on their effectivity dates. The quantity of each component is increased by its scrap factor and operation scrap, if applicable.

The following table illustrates several scenarios pertaining to shrink, scrap, and operational yield.

Figure 3–2 Shrink, Scrap, and Operational Yield Scenarios

```
333
212
(2)
OP 10
424
(4)
OP 10
123
(1)
OP 10
122
(12)
OP 10
121
(2)
OP 25
444
(1)
OP 30
Component
Quantity Per
Operation
Order with no shrink, scrap or yield - quantity = 10:
                                                212  424      123      122      121      444
                                                Component
                                                20   40       10       120      20       10
                                                Quantity Per

Order with 10% shrink on parent 333 - quantity - 10
                                                212  424      123      122      121      444
                                                Component
                                                22   44       11       132      22       11
                                                Quantity Per

Order with 10% scrap on component item 444 - quantity 10
                                                212  424      123      122      121      444
                                                Component
                                                20   40       10       120      20       11
                                                Quantity Per

Order with 95% yield at operation 10 and 95% yield at operation 25 - quantity 10
                                                212  424      123      122      121      444
                                                Component
                                                22   44       11       133      21       10
                                                Quantity Per

Order with 10% shrink on parent 333, 10% scrap on component 444, 95% yield on operations 10 and 25 - quantity = 10
                                                212  424      123      122      121      444
                                                Component
                                                24   49       12       146      23       12
                                                Quantity Per
```

3.2.1 Phantom Items

The Material Requirements Planning (MRP) system does not plan to produce phantom items, but will take their existence into account. The Shop Floor Control system includes lower-level components of phantom items when you attach a parts list. Phantom items:

- Are not planned by MRP

- Can be any lower-level component in the bill for a parent item

- Can be used to define a subassembly within a parent item when the subassembly is not stocked in inventory nor planned by MRP, but is consumed into the parent

In the following example, the parts list would include items B, E, F, and G.

Figure 3–3   Phantom Items Parts List
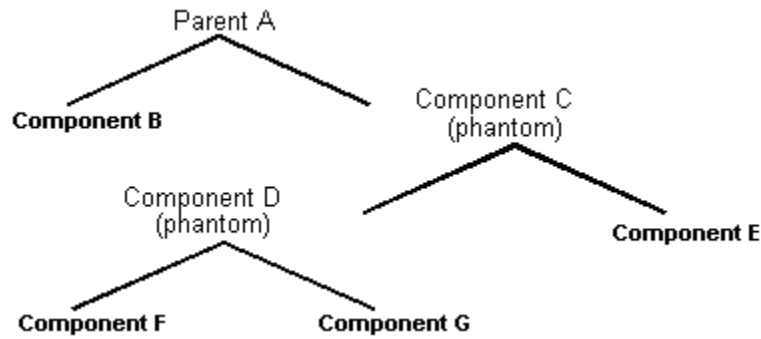
The system calculates component quantities according to the order quantity on the work order if they are variable quantity items. If you activate the rounding feature in the Item Master table (F4101), the system rounds up the extended quantity value to a whole number if it has a decimal value greater than or equal to .01.

The system uses the leadtime offset for each component to determine that component's requested date. If a component does not have a leadtime offset, its requested date will be the start date of the work order, or the start date of the associated operation sequence on the routing. A component can have a negative leadtime offset, indicating that it is required before the start date of the work order. Examples are items that need processing or inspection before they can be used in an assembly. If the requested date for a component falls beyond the order completion date, the system enters the order completion date for the item.

3.3 When Do You Attach Routing Instructions?

You attach the routing instructions after you enter a work order header. A routing instruction is a list of the operations and resources required to complete the quantity of items requested from the shop floor. You can attach the routing instructions:

■   Manually

■   By setting a processing option in order entry to automatically attach it after the parts list is attached

■   Automatically, using Order Processing

Regardless of whether you manually attach the routing instructions or use the batch program, you should attach it at the same time that you attach the parts list. The system uses the routing to verify information about each item on the parts list.

3.3.1 Outside Operations

You might have steps on your routing that are completed by outside operations. In this case, you need to identify those steps and either run order processing or interactively attach the routing to create purchase orders for the steps. When you record the receipt, a window automatically displays for you to update the routing quantities and status as necessary.

Figure 3–4   Enter Receipts by PO
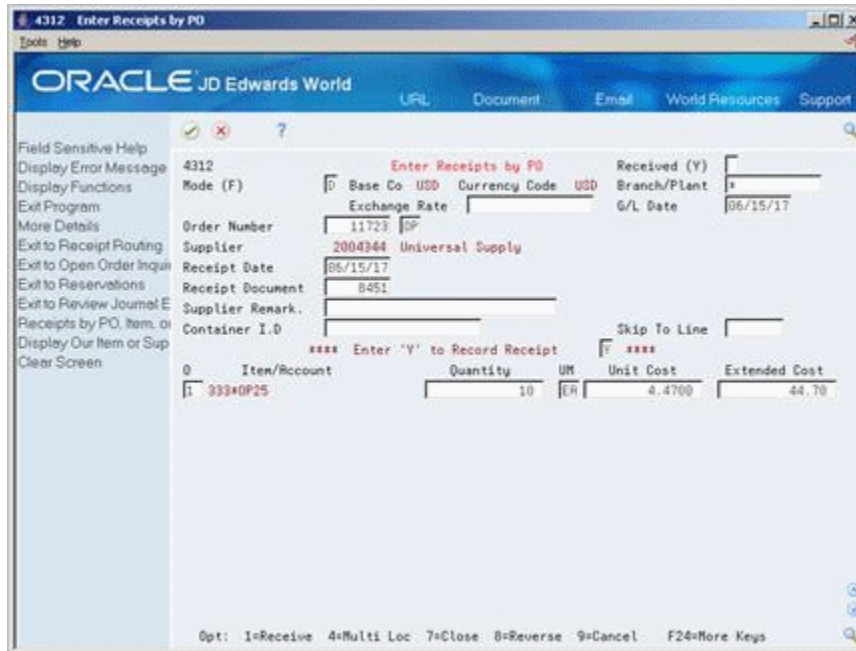
Figure 3–5   Outside Processing window
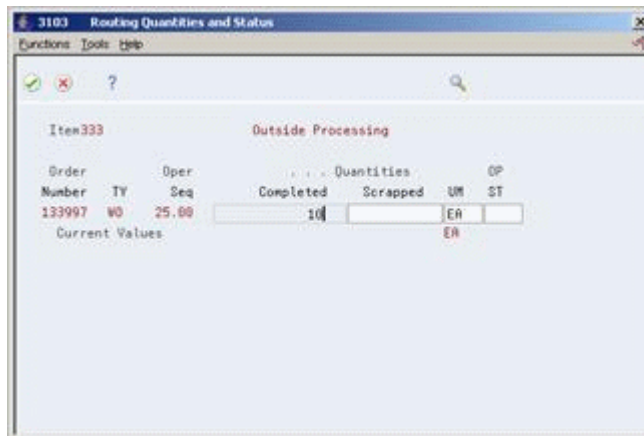
You can also track costs for the outside operations. To do so, set up the outside operation as an item in the Item Master, by using the following item number structure as the item number before you process the order.

Figure 3–6   Item Number Structure for Outside Operations
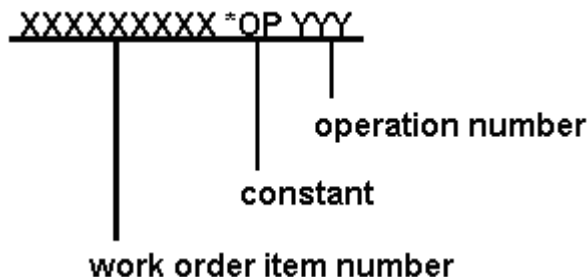
You can then attach a unit cost to the item in cost revisions. The unit cost will be accumulated into the total parent item cost when you run Cost Rollup.

If you do not set up the outside operation as an item in the Item Master, the system generates an item number for the operation using the above structure and enters it on the purchase order. System-generated item numbers for outside operations do not have unit costs defined. Therefore, if you do not define outside operations as items, they will carry a zero unit cost when you perform a cost rollup for the parent item.

The new item's quantity on the purchase order and the supplier instructions are updated with the current information.

The system indicates *NO PO in the Related Order field on the routing instructions if it cannot create a purchase order for the following reasons:

- No Item Master or Item Branch record was found for the parent item on the routing that has an outside operation.

- The processing options in the purchasing order activity rules were not set up for line type, document type, and status.

3.4 How Does the System Calculate the Start Date?

The system uses level leadtime or leadtime per unit to calculate the start dates of work orders from the due dates.

3.4.1 Fixed Leadtime

If an item on the work order has a fixed leadtime, the system uses the level leadtime to backschedule to determine the start date.

For example:

- Work order due date = 10/15/18
- Level leadtime = three days
- Start date = 10/12/18

The system calculates the start date for the work order by subtracting the level leadtime or leadtime per unit, depending on the fixed or variable leadtime flag, from the required date. The system displays an error message if one of the following occurs:

- The start date differs from the date of the first operation sequence on the item's routing.

- The operation sequence dates could not be calculated using backscheduling.

3.4.2 Variable Leadtime

If an item on the work order has a variable leadtime, the system uses the leadtime per unit to backschedule to determine the start date. The system uses the following calculation:

Figure 3–7   Calculation to Determine Variable Leadtime

$$\frac{(\text{Leadtime per unit} \times \text{order quantity} / \text{TIMB (item branch))} + \text{setup} + \text{queue}}{\text{Work hours per day}}$$

For example:

- Work order due date = 10/15/18

- Leadtime per unit = 32 hours

- Work order quantity = 1000

- Setup = 1 hour

- Queue = 9 hours

The system calculates the start date by counting back two working days on the shop floor calendar from the due date. The work order start date is 10/13/18.

> **See Also:**
>
> - Appendix B, "Lead Times."

3.5 What Is Shop Paperwork?

Shop paperwork consists of the following printouts:

- Work orders with or without the parts list or routing information

- Shop packet summary

- Parts list shortages

Shop paperwork can be generated when you process the work order using the batch program, or by running the batch program in print only mode.

3.6 What Is Backscheduling?

To meet the MRP required date for an order, the Shop Floor Control system assigns a completion date for the work order routing that is one day prior to the MRP required date.

Then, the system assigns the start and requested dates to each operation in the routing for the work order. Assigning the start and requested dates for each operation is called backscheduling.

Backscheduling ensures that the material is out of production and available on the required date. For example, a work order routing completion date of February 15 ensures that the items produced will be out of production and available for shipping or sale on the MRP required date of February 16.

Figure 3–8 Routing Revisions screen
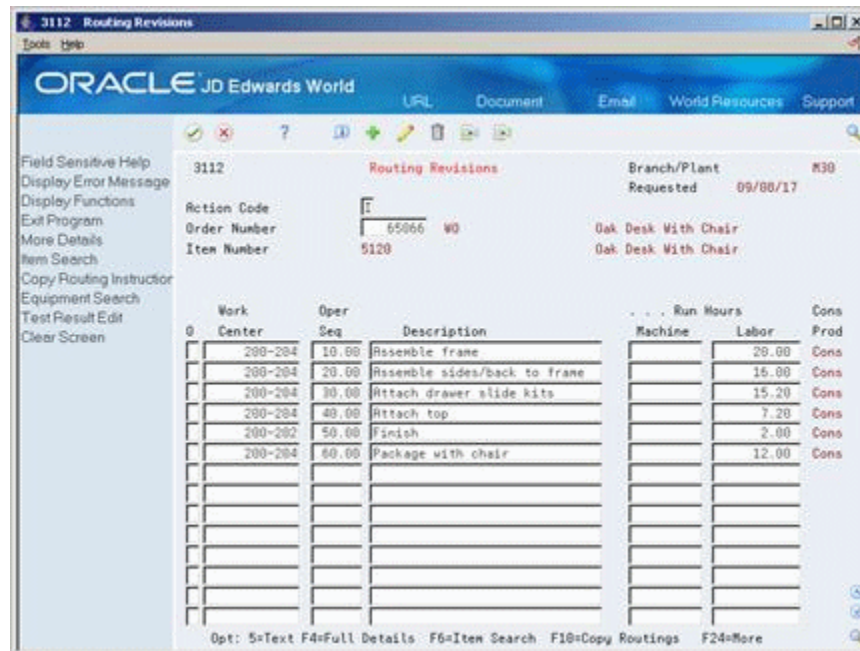
Figure 3–9 Routing Revisions screen (Details area)
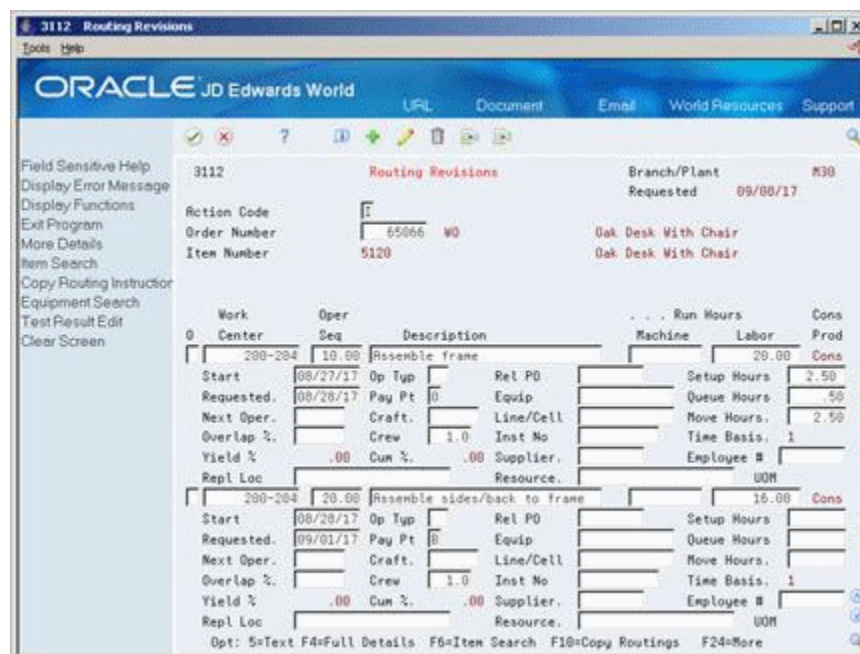
After you have defined your work order routing, the system:

■ Retrieves the resource units for the work center of the routing operation. Resource units are factored (that is, increased or decreased) by the resource unit efficiency and utilization percentages.

■ Consumes the hours (queue, run, then move hours), using the calculations for either fixed or variable leadtime.

- Scales the work center's remaining units proportionate to the previous operation's remaining units. For example, if 25% of the previous work center's units remain available, the current work center's units available to schedule for the same day will equal 25% of its daily total. This assumes that all work centers have consumed 50% of available units by the middle of the calendar work day.

3.7 Blending, Filling, and Packaging

Use Discrete Manufacturing to produce and track work orders for the filling and packaging of lube oil finished goods when only one product is produced with no co- or by-product requirements.

See Also:

- *JD Edwards World Bulk Stock Management Guide*.

4

Create Work Orders

A work order is a request to produce a certain quantity of an item by a given date.

Creating work orders includes the following tasks:

- Section 4.1, "Entering Work Order Headers,"
- Section 4.2, "Attaching the Parts List Interactively,"
- Section 4.3, "Attaching the Routing Instructions Interactively,"
- Section 4.4, "Assigning Serial Numbers."

As an alternative to entering work orders manually, you can use the Manufacturing Work Order Entry Z File (P48013Z) program to import an extensive amount of work orders into your system. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

4.1 Entering Work Order Headers

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation.

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order

To enter a work order header, you identify the item, its branch/plant and quantity, and the requested date for the work order. You may, optionally, enter other information not required at order entry, such as the revision level for the bill of material or associated sales information.

The system calculates the start date based on the requested date that you enter. If the requested date is before the current date or is not defined as a work day, a warning message appears. The system cannot calculate the start date for the work order if the requested date is in error.

JD Edwards World recommends that you use different document types to identify the different types of work orders, such as rework, repair, or prototypes.

Use Engineering Change Order (ECO) Revision to create a work order against a prior revision level by:

- Selecting a revision level to attach to the work order
- Manually entering a different revision level

Entering work order headers includes the following tasks:

- Entering identifying information

- Entering scheduling information

- Entering descriptive information (optional)

- Entering planning information (optional)

- Entering responsible persons (optional)

- Entering sold to information (optional)

- Entering accounting information (optional)

- Entering a revision level (optional)

Before You Begin

- Use the processing options for order entry to control how the system processes information on the order and to access associated information, such as the order's parts list and routing instructions.

- Set up the shop floor calendar for the work days and months that the order activity will span, including leadtimes. See Section 34.3, "Setting Up the Shop Floor Calendar."

- Set up the document types that you use to identify different work order types in the following places:

  - User Defined Codes (00/DT) table

  - Processing options of the Supply/Demand Inclusion Rules program, if the new document types are to be used in other parts of the Manufacturing system

- Enter the unit of measure in the processing options that you want the system to use for backscheduling the routing operations for an item.

- Check the availability of the parts that are needed to complete a work order before you create the work order. See Section 14.1, "Reviewing Availability and Shortages."

- Set up valid work center locations. See Section 34.6, "Setting Up Work Centers."

- Use the processing options to initiate Warehouse Management system integration. See *JD Edwards World Advanced Warehouse Management Guide* for information about setting up Warehouse Management.

What You Should Know About

Topic	Description
Locating related sales order information	You can access Order Address Information if you need the address of the customer on the sales order related to your work order. Blank fields appear when there is no sales order associated with your work order.
Adding description details	You can access Work Order Detail Entry to add detail to the work order description (F5). If the work order is printed the detail will appear as text lines.
Manufacturing Accounting system	If you use summarized journal entries in Manufacturing Accounting, the system uses Next Numbering to assign document numbers by document type for the batch of work orders being summarized.
	See Reviewing Summarized Work Orders in the *JD Edwards World Product Costing and Manufacturing Accounting Guide*.

Topic	Description
Blending, filling, and packaging	Use a processing option for the Enter/Change Order program for the blending and filling processes. You specify the program ID of the Formula Optimization routine the system calls when you select to optimize the formula from the parts list.
	When you generate a work order parts list the system checks the allowed products matrix for an incompatibility between the parts list and the blending tank. The incompatibilities appear as errors.
	See *JD Edwards World Bulk Stock Management Guide*.
Quality Management test results	As you create a work order, you can:
	■ Use Preference Profiles to maintain tests for the parent item.
	■ Maintain generic text to indicate when to test materials, and with which test.
	■ Enter test results for the tests defined for the parent item.
	See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.
Import/Export	This program supports Import/Export Functionality. See *JD Edwards World Technical Foundation Guide* for more information.

Figure 4–1   Enter/Change Order screen
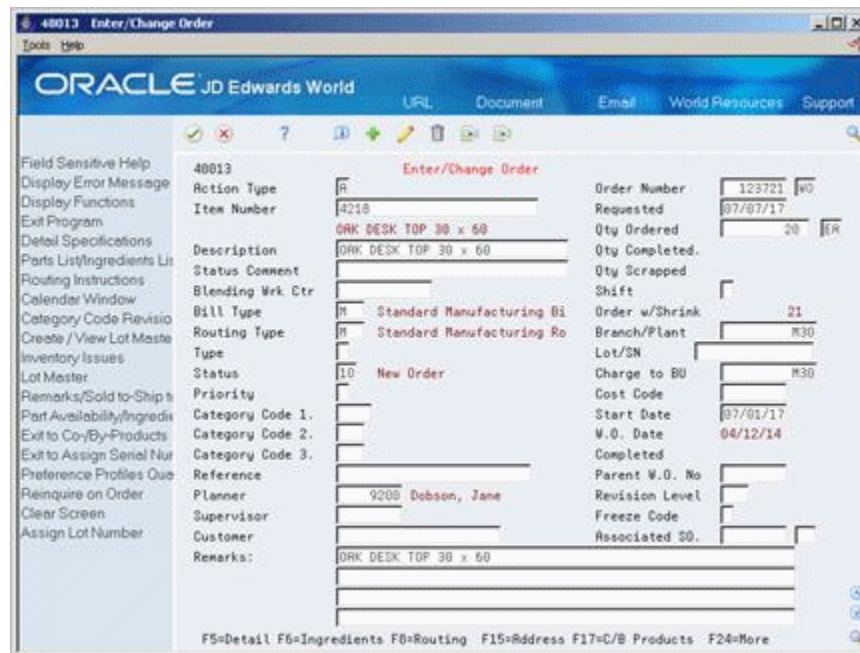
To enter identifying information

On Enter/Change Order

Complete the following fields:

■ Item Number

■ Branch/Plant

Field	Explanation
Item Number	A number that the system assigns to an item. It can be in short, long, or 3rd item number format.
Branch/Plant	A code that represents a high-level business unit. It can be used to reference a branch or plant that might have departments or jobs, which represent lower-level business units (data item MCU), 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. *Form-specific information* For Shop Floor Control and Manufacturing Accounting: This field identifies the branch/plant in which the item resides.

To enter scheduling information

An error message appears if a scheduling problem exists on your work order. This message indicates that there is a difference between the work order start date and one or both of the following:

■ The start date of the first routing operation

■ The calculated start date for the work order, which indicates difficulty in backscheduling

On Enter/Change Order

Complete the following fields:

■ Requested

■ Quantity Ordered

Field	Explanation
Requested	The date that an item is to arrive or that an action is to be complete. *Form-specific information* For Shop Floor Control: When you change the requested date: ■ The system calculates a new start date based on the new requested date if you delete the date in the Start Date field before you enter the new requested date. If you do not delete the start date, the system does not recalculate or change it. ■ The system recalculates the operation start and complete dates according to the scheduling rules defined.

Field	Explanation
Qty Ordered	The quantity of units affected by this transaction.
	Form-specific information
	For Shop Floor Control Discrete Manufacturing:
	When you change the order quantity, the system recalculates the following:
	■ The component-required quantities and commitments
	■ The operation start and complete dates, if the leadtimes are variable
	Note: Order quantity should not be changed after transactions have occurred against the order.
	In the process industry:
	The quantity of co-/by-products produced by the process.

To enter descriptive information

You can enter descriptive information to further identify the work order, such as classification, priority, lot identification, parent item, and the revision level of the related bill of material.

On Enter/Change Order

1. Complete the following optional fields:

   - Type

   - Priority

   - Remarks

   - Lot Number

   - Parent Work Order Number

   - Revision Level

2. Choose Work Order Detail Entry.

Figure 4–2 Work Order Detail Entry screen
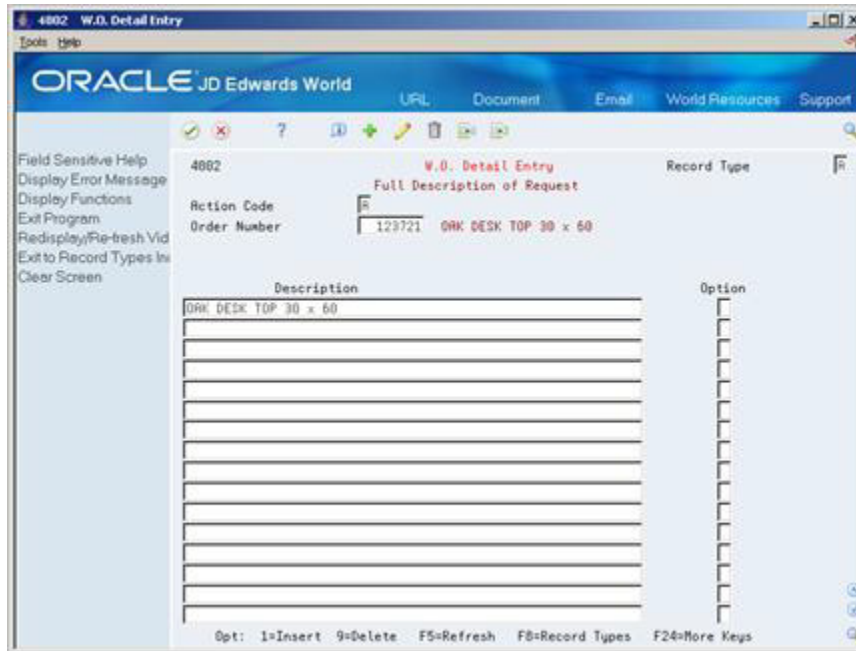
3. On Work Order Detail Entry, complete the following field to add detail text regarding the work order:

   - Description

4. Choose Work Order Record Types.

Figure 4–3 Work Order Record Types screen

5. On Work Order Record Types, complete the following fields to identify up to three additional headings for the detail form:

   - Subtitle I

- Subtitle II
- Subtitle III

6. Choose Work Order Category Codes.

Figure 4–4   Work Order/Rate Category Codes screen
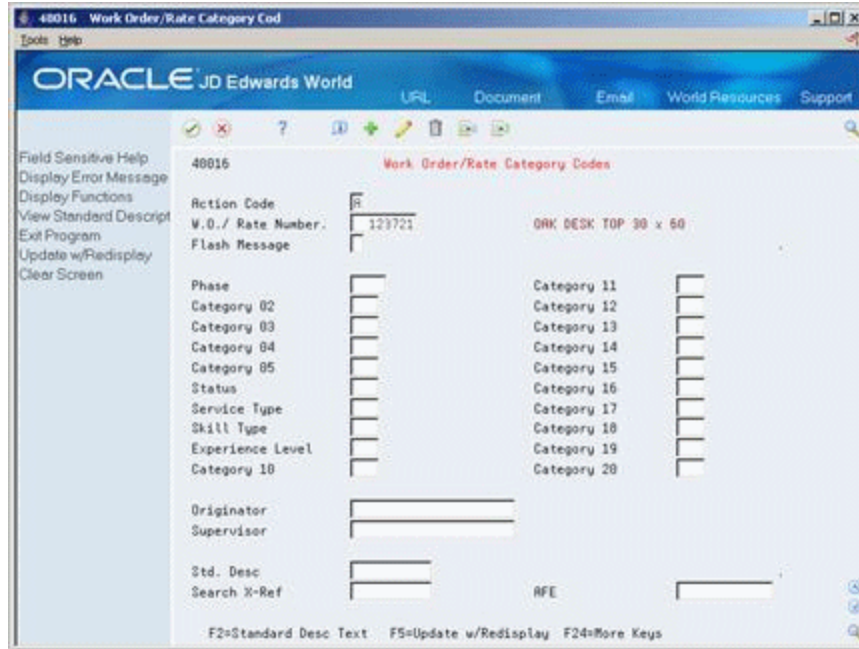
7. On Work Order Category Codes, complete the following optional fields:

- Phase (Category Code 1)
- Category Code 2
- Category Code 3
- Category Code 4
- Category Code 5
- Status
- Service Type
- Skill Type
- Experience Level
- Category Code 10
- Originator
- Supervisor
- Standard Description
- Search Cross Reference

Field	Explanation
Type	A user defined code (00/TY) that indicates the type classification of a work order or engineering change order.
	You can use work order type as a selection criteria for work order approvals.
	Form-specific information
	For Shop Floor Control:
	If you leave this field blank on order entry, the system uses the value specified in the processing options.
Priority	A user defined code (system 00, type PR) that indicates the relative priority of a work order or engineering change order in relation to other orders.
	A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work order you create on those forms and on the Project Setup form. You can either accept or override the default value.
Remarks:	Extended description field for work order information.
	Form-specific information
	For Shop Floor Control:
	If you leave this field blank, the system displays the description for the item from the Item Master table. However, you can override this default by changing the field on the work order header.
Lot/SN	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.
Parent W.O. No	This is the parent work order number. You can use this number to:
	1. Enter default values for newly added work orders, for example, Type, Priority, Status, or Manager.
	2. Group work orders for project setup and reporting
	Form-specific information
	For Shop Floor Control:
	You can manually enter this number to:
	■ Identify multi-level configured items
	■ Provide the default for work orders for the lower configured item (if you enter it for the top-level configured item)
	■ Group work orders for project setup and reporting
Revision Level	Indicates the revision level of a bill of material. It is usually used in conjunction with an engineering change notice or order (ECN or ECO). The revision level of the bill of material should match the revision level of its associated routing (data item RREV), although the system does not check this. This value is defined and maintained by the user.
Sub-Title Description	A subtitle, description, remark, name, or address.
	The text you type in this field appears as a column head on the Work Order Detail Entry form for the record type indicated.

Field	Explanation
Category Code 1	A user defined code (00/W1) that indicates the current stage or phase of development for a work order. You can assign a work order to only one phase code at a time.
	Note: Certain forms contain a processing option that allows you to enter a default value for this field. If you enter a default value on a form for which you have set this processing option, the system displays the value in the appropriate fields on any work orders that you create. The system also displays the value on the Project Setup form. You can either accept or override the default value.
Status	A user defined code (system 00, type W6) that indicates the status of the work order.
Service Type	A user defined code (system 00, type W7) that indicates the service type for the work order.
Skill Type	The type or category of work order.
	Form-specific information
	For Shop Floor Control:
	A user defined code (system 00, type W8) that indicates the skill type for the work order.
Experience Level	The type or category of work order.
	Form-specific information
	For Shop Floor Control:
	A user defined code (system 00, type W9) that indicates the experience level for the work order.
Address Number - Originator	The address book number of the person who originated the change request.
Supervisor	The address book number of the supervisor.
	Note: A processing option for some forms allows you to enter a default value for this field based on values for Category Codes 1 (Phase), 2, and 3. Set up the default values on the Default Managers & Supervisor form. After you set up the default values and the processing option, the information displays automatically on any work orders you create if the category code criterion is met. You can either accept or override the default value.
Message Number	A user defined code (system 48, type SN) that is assigned to a standard note, message, or general narrative explanation. You can use this code to add instructional information to a work order. You set up codes for this field on Standard Description.
	Form-specific information
	For Equipment/Plant Maintenance users:
	You can use this code to assign narrative text for a standard procedure. The information appears on the Item PM schedule and the work order routing.
Reference	An alphanumeric value used as a cross-reference or secondary reference number. Typically, this is the customer number, supplier number, or job number.

To enter planning information

You can identify where the work order is in the process and if it has been frozen.

On Enter/Change Order

Complete the following optional fields:

- Status Comment

- Status

- Freeze Code

Field	Explanation
Status Comment	A brief description to explain the status of the work order.
Status	A user defined code (00/SS) that describes the status of a work order or engineering change order. Any status change from 90 thru 99 automatically updates the date completed.
	Form-specific information
	For Shop Floor Control:
	A processing option for order entry lets you enter a default value for this field.
Freeze Code	A code that indicates if the order is frozen. MPS/MRP will not plan for frozen orders.
	Valid codes are:
	Y Yes, freeze the order
	N No, do not freeze the order (Default)

To enter responsible persons

You can identify the persons associated with the work order.

On Enter/Change Order

Complete the following optional fields:

- Planner

- Supervisor

- Customer

Field	Explanation
Planner	The address book number of a manager or planner.
	Note: A processing option for some forms lets you enter a default value for this field based on values for Category Codes 1 (Phase), 2, and 3. Set up the default values on the Default Managers and Supervisors form. After you set up the default values and the processing option, the information displays automatically on any work orders you create if the category code criterion is met. (You can either accept or override the default value.)
	Form-specific information
	For Shop Floor Control:
	If you leave this field blank, the system uses the planner for the item in the Branch/Plant table.
Customer	The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).

To enter sold to information

You can identify associated sales information for the work order.

On Enter/Change Order

Complete the following optional fields:

■ Reference

■ Customer

■ Associated Sales Order

The fields listed above will contain default information if there is a sales order associated with this work order.

Field	Explanation
Associated SO	A number that identifies a secondary purchase order, sales order, or work order associated with the original order. This is for information only.

To enter accounting information

You can identify the business unit to be charged and its account.

On Enter/Change Order

Complete the following optional fields:

■ Charge to Cost Center

■ Cost Code

Field	Explanation
Charge to CC	An alphanumeric field 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, or branch/plant.
	You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.
	Security for this field can prevent you from locating business units for which you have no authority.
	Note: The system uses this value for Journal Entries if you do not enter a value in the AAI table.
	Form-specific information
	The default business unit for journal entries for the work order. The business unit on the AAI tables must be blank.
Cost Code	A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.
	Form-specific information
	For Shop Floor Control and Manufacturing Accounting:
	If a value is not entered in the AAI table for subsidiary account, the system uses this value as a default in journal entries.

To enter a revision level

On Enter/Change Order

1. Do one of the following:

   ■ Complete the following field:

     – Revision Level

     Access the list of revision levels from which you can select for the work order by pressing F1.

Figure 4–5 Revision Level window
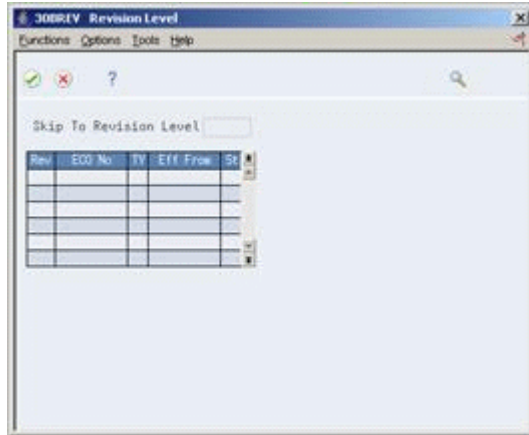
2. On Revision Level, select the revision level to be placed on the work order header.

   The system closes the Revision Level window.

3. 3. On Enter/Change Order, add the revision level to the work order header by pressing Enter.

Field	Explanation
Revision Level	Indicates the revision level of a bill of material. It is usually used in conjunction with an engineering change notice or order (ECN or ECO). The revision level of the bill of material should match the revision level of its associated routing (data item RREV), although the system does not check this. This value is defined and maintained by the user.

See Also:

■ Work with PC Import/Export in the *JD Edwards World Technical Foundation Guide*.

Processing Options

See Section 35.1, "Manufacturing Work Order Entry (P48013)."

4.2 Attaching the Parts List Interactively

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order

After you enter your work order header, you attach a parts list to it. You can attach the parts lists:

- Interactively, using a function key

- Manually, entering the parts

- Processing a parts list batch using Order Processing

- Using the Work Order Parts List Z File (P3111Z) program to import an extensive amount of work order parts list data. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

If a bill of material already exists in the system for the item, you can copy the bill of material information into the parts list. You can then attach this parts list to your order. You attach the parts list interactively using function keys.

After you attach the parts list to your work order header, you can:

- Specify or change a substitute item or quantities from different locations

- Choose substitute items and their quantities on hand when a component shortage is encountered

Use a processing option for Enter/Change Order to specify the substitute processing that you want to use:

- Commit using the commitment control set in Manufacturing Constants

- Commit using the commitment control set in Manufacturing Constants, but use substitutes for shortages

- Commit using the commitment control set in Manufacturing Constants, but use substitutes if the quantity available can cover the shortage

- Commit using the commitment control set in Manufacturing Constants, but display substitute availability when substitute quantity available can cover the shortage

If you perform costing by work center, the system creates the Production Cost table (F3102) at the work center level. The system associates work centers with material by operation sequences. By matching the operation sequence number in the work order parts list to the operation sequence number in the work order routing, it links component to the work center. The system associates any mismatched operation sequences with blank work centers.

Attaching the parts list interactively includes the following tasks:

- Attaching the parts list

- Entering substitutions (optional)

- Choosing substitute items (optional)

- Entering multiple locations (optional)

To attach the parts list

On Enter/Change Order

1. Choose Work Order Parts List.

Figure 4–6   Work Order Parts List screen
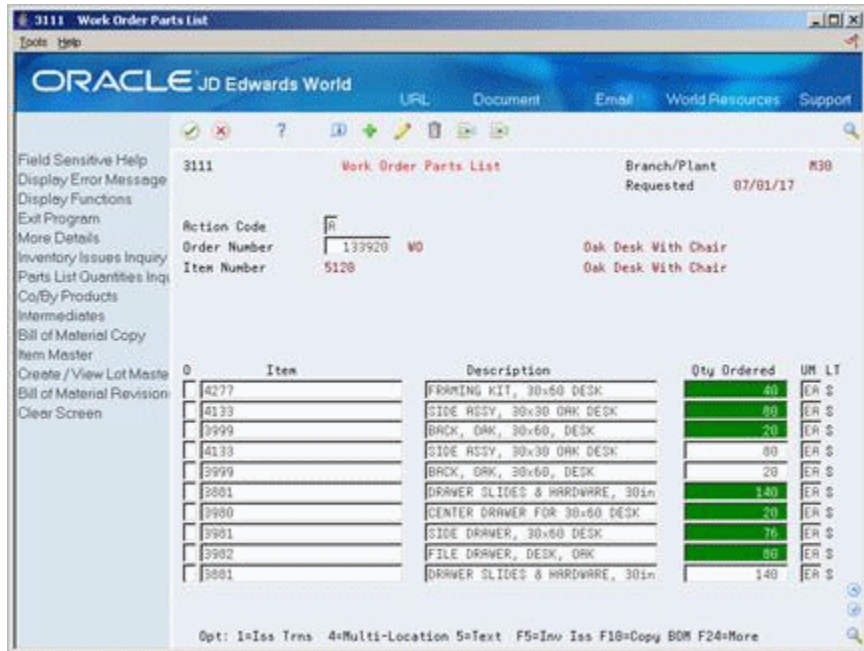
2. On Work Order Parts List, choose the appropriate function key to copy the bill of material.

3. Add the bill of material to the parts list.

4. Review the following fields:

   ■ Item

   ■ Quantity Ordered

   ■ Description

   ■ Quantity Ordered Unit of Measure

   ■ Line Type

5. Access the detail area.

Figure 4–7   Work Order Parts List screen

6. Review the following fields:

   ■ Revision Level

   ■ Material Status

   ■ Location

   ■ Lot

   ■ Operations Sequence

   ■ Requested

   ■ Fixed/Variable

   ■ Issue Type Code

   ■ Branch/Plant

   ■ From Potency

   ■ Through Potency

   ■ From Grade

   ■ Through Grade

   ■ Supplier

   ■ Issue and Receipts

Field	Explanation
Description	A brief description of an item, a remark, or an explanation.
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant.

Field	Explanation
LT	A code that controls how the system processes lines on a transaction. It controls the systems with which the transaction interfaces (General Ledger, Job Cost, Accounts Payable, Accounts Receivable, and Inventory Management). It also specifies the conditions under which a line prints on reports and is included in calculations. Codes include:
	S – Stock item
	J – Job cost
	N – Non-stock item
	F – Freight
	T – Text information
	M – Miscellaneous charges and credits
	W – Work order
UM	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.
	Form-specific information
	If you leave this field blank for an existing component, the system uses the value in the Bill of Material Master table. If you leave this field blank for a new component, the system uses the component unit of measure from the Item Master table. For both of these situations, the system updates the quantities in the Item Location table in primary unit of measure.
Operations Seq	In routings, this number is used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.
	In bills of material, this number designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing for the item. The Shop Floor Control system uses this field in the backflush/preflush by operation process.
	In engineering change orders, this number is used to sequence the assembly steps for the engineering change.
	Skip To fields allow you to enter an operation sequence that you want to begin the display of information.
	You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.
Revision Level	The current revision level of a component on the bill of material. It is usually used with an engineering change notice or order (ECN or ECO).
Material Status	A code (table 31/MS) that identifies the current status of a particular component on the work order.

Field	Explanation
Fixed/Variable	Indicates if the quantity per assembly for an item on the bill of material varies according to the quantity of the parent item produced or is fixed regardless of the parent quantity. This value also determines if the component quantity is a percent of the parent quantity. Valid values are: F – Fixed Quantity V – Variable Quantity (Default) % Quantities are expressed as a percentage and must total 100% For fixed quantity components, the Work Order and MRP systems do not extend the component's quantity per assembly value by the order quantity. For Process Manufacturing, the system stores percent components. Therefore, the system treats zero batch sizes like variable quantity components, and treats batch sizes greater than zero like fixed quantity components.
Issue Type Code	A code that defines how the system issues each component in the bill of material from stock. In shop floor control, it indicates how the system issues a part to a work order. Valid codes are: I – Manual issue (default) F – Floor stock (no issue) B – Backflush (when part is reported as complete) P – Preflush (when parts list is generated) U – Super backflush (at pay-point operation) S – Sub-contract item (send to supplier) Blank Shippable end item You can issue a component in more than one way within a specific branch/plant by using a different code on the bill of material and work order parts list. The bill of material code overrides the branch/plant value.
Potency	A code that indicates the potency of the lot, which is expressed as a percentage of active or useful material (for example, the percentage of alcohol in a solution). The actual potency of a lot is defined in the Lot Master table (F4108).
Grade	This field contains the grade of a lot expressed as an alphanumeric code. The grade is used to indicate the quality of the lot. For example: A1 – Premium grade A2 – Secondary grade The grade for a lot is stored in Lot Master table (F4108).

Field	Explanation
From Potency	A number that indicates the minimum potency, or percentage of active ingredients, acceptable for an item.
	The system displays a warning message if you try to purchase or issue items that do not meet the minimum acceptable potency. The system does not allow you to sell items that do not meet the minimum acceptable potency.
	Form-specific information
	The From Potency field and the Through Potency field define the allowable percent of active ingredients for an item. The From Potency value should be less than the Through Potency value. These values are also used to determine the potency requirements of a component in a bill of material or an item in a purchase or sales order.
	For example, the value of the From Potency equals 70.000%, and the value of the Through Potency equals 80.000%. In this case, inventory allocations for this item are made for lots for which the potency is greater than or equal to 70.000%, and less than or equal to 80.000%.
From Grade	A code (system 40, type LG) that indicates the minimum grade that is acceptable for an item.
	The system displays a warning message if you try to purchase or issue items with grades that do not meet the minimum grade acceptable. The system does not allow you to sell items with grades that do not meet the minimum acceptable level.
	Form-specific information
	The From Grade and the Through Grade fields define the allowable grades for an item. The From Grade should be less than the Through Grade. These values are also used to determine the grade requirements of a component in a bill of material or an item in a purchase or sales order.
	For example, the value of the From Grade equals A01, and the value of the Through Grade equals A05. In this case, inventory allocations for this item will be made for lots for which the grade is greater than or equal to A01, and less than or equal to A05.
Address Number - Input (Mode Unknown)	The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).
Issue and Receipt	Indicates if an item is under a pay on consumption agreement.
	Blank Purchases will be paid upon receipt of the item.
	1 – Purchases will be paid when issued to the plant floor.
Oper Scrap %	The system uses this value to increase or decrease the amount of materials to account for loss within the operation. The system updates this value on Enter/Change Bill of Material when you run the Planned Yield Update program. The system calculates this value by compounding the yield percentages from the last operation to the first operation. Use a processing option in Enter/Change Routing to enable the system to calculate the component scrap percent.

To enter substitutions

You can specify substitutions for the component items. To do this, enter the substitute quantities in the Component Item Substitutions form. If there is no quantity available, no information appears on this form.

On Enter/Change Order

1. Choose Work Order Parts List.

2. On Work Order Parts List, choose Component Item Substitutions.

Figure 4–8   Component Item Substitutions screen
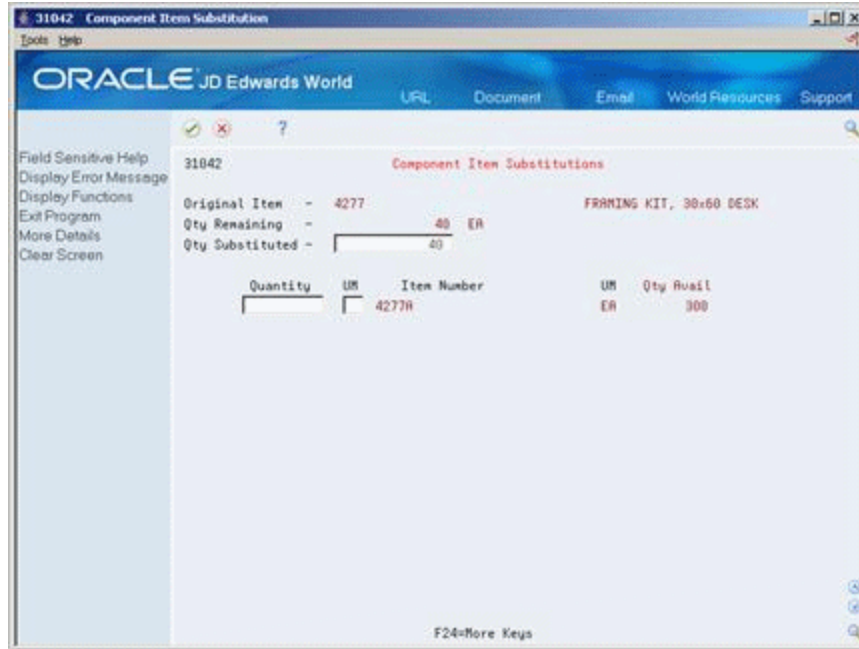
3. On Component Item Substitutions, complete the following field:

   ■ Quantity

4. Review the following default information:

■ Quantity Substituted

■ Unit of Measure

■ Item Number

■ Description

■ Quantity Available

Field	Explanation
Qty Substituted -	The number of units affected by this transaction.

Field	Explanation
Unit of Measure as Input	The basic measurement used to designate the quantity of an inventory item. Examples are:
	BA – bale
	LB – pound
	BG – bag
	MB – per thousand pieces
	BU – bundle
	MF – per thousand feet
	BX– box
	MW – per thousand weight
	CB – per hundred pieces
	PC – piece
	CF – per hundred feet
	PR – pair
	CS – per hundred square feet
	RL – roll
	CW – per hundred weight
	SF – square feet
	DM – drum
	SK – skein
	DZ – dozen
	TN – ton
	EA – each
	FT – feet
Quantity on Hand - Primary units	The number of units that are physically in stock. The quantity on-hand displays in the primary unit of measure.

To choose substitute items

When the system encounters a component shortage, you can choose the available substitutes and quantity. After you enter the information, the system adds the selected items and quantities to the parts list and deducts the equivalent quantity from the component. You cannot access this form unless there is at least one quantity available.

On Enter/Change Order

1. Choose Work Order Parts List.

2. On Work Order Parts List, choose Substitute Availability.

Figure 4–9   Substitute Availability window
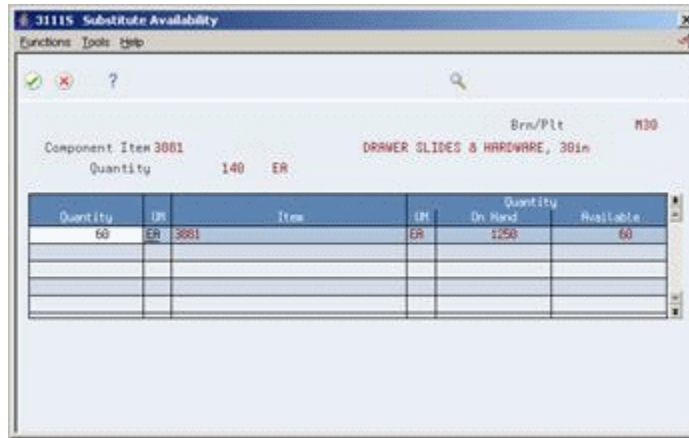
3.   On Substitute Availability, review the following information:

   ■   Quantity

   ■   Item

   ■   Quantity Available

4.   Change the following field as needed

   ■   Quantity

5.   Select the record to place the equivalent quantity for the component in the parts list

The system calculates this quantity using the substitute item setup values (fixed or variable, partial, and so on).

To enter multiple locations

You can specify more than one commitment location for the item. However, if you select a location that is not the primary location specified on the parts list, the system hard commits the item.

On Enter/Change Order

1.   Choose Work Order Parts List.

2.   On Work Order Parts List, choose Select Multiple Locations

3.   On Select Multiple Locations, complete the following fields:

   ■   Quantity

   ■   Location

   ■   Lot

   ■   Branch/Plant

Field	Explanation
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant.
	Form-specific information
	If you select a location that is not the primary location specified on the parts list for a specific item, the system hard commits that item.
Available	The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.

4.3 Attaching the Routing Instructions Interactively

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation. k

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order

After you enter your work order header, you attach the routing instructions to it. You can attach the routing instructions:

- Interactively, using a function key

- Manually, entering the routing instructions

- Processing a batch using Order Processing

- Using the Work Order Routing Z File (P3112Z) program to import an extensive amount of routing instruction data. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

You can copy the routing instructions from an existing work order and attach it to your work order header. You do this using a function key.

If you perform costing by work center, the system creates the routing costs in Production Cost table (F3102) at the work center level. Instead of accumulating all of the routing costs and categorizing them to cost type level, system calculates the costs in each work center and categorizes them based on cost type.

Before You Begin

- Verify that a record for the parent item exists in the Item Master and Item Branch tables

- Enter the document type, line type, and status code for the purchase order in the processing options for Order Processing

What You Should Know About

Topic	Description
Attaching the routing instructions manually	You use the manual method to change a step in the operation that the Order Processing program assigns, or you can change this after interactive or batch attachment.
	See Section 5.1, "Processing Work Orders."

Topic	Description
Attaching the routing instructions using the batch program	Use the Order Processing program and the appropriate processing option to attach the routing instructions to the work order header.
	See Section 5.1, "Processing Work Orders."
Locating a routing	When you locate a routing, the system displays the operations that are effective at the start date of the work order and those that are standard instructions or text lines. If a routing is not attached to the work order, no values appear in the fields.
Creating a purchase order for outside operations	You must create a purchase order for any step in the routing instructions that involves a subcontractor. Do this using the Enter/Change Routing program. After you enter purchase order information, supplier, type of operation, purchase order, and cost type, you may run the Order Processing batch program or interactively attach the routing to create the purchase order.
Changing the status of a routing operation	If you change the status of a routing operation, the system can create duplicate purchase orders for that operation.
Deleting an outside operation for a routing	If you delete an outside operation with an associated purchase order, the system deletes the purchase order if the original status of the routing operation remains unchanged. When the system deletes the purchase order, it updates the quantity on purchase order value for the primary location and the open amount in the supplier instructions.
Aligning work order start date and routing first operation start date	When using variable lead time, the work order start date and routing first operation start date frequently do not match due to differences in calculations. On the Manufacturing Work Order Entry program (P48013), processing option 33 can be set so that the work order start date is automatically updated with the start date of the first routing operation. Because it includes additional resource units that can be added to the Work Center Master, the routing first operation start date is considered more accurate.
Item records	A record for the item in the work order must exist in the Item Branch table (F4102). If the system does not find the record, it creates one in the table.
Attaching notes to a work order	Access the Notes window to create a separate generic text entry for each work order. This window enables you to provide more information and specific instructions per order. Any modifications that you make to the text will not impact the text that was originally attached to the item's routing.
	You can also access User Audit Information and Select Notes Template to view user and date updates, as well as templates.
Using the Warehouse Management system	If you set up the work center as a valid location, the system checks the work center for availability before you use Warehouse Management.

To attach the routing instructions interactively

On Enter/Change Order

1. Choose Routing Revisions.

Figure 4–10   Routing Revisions screen
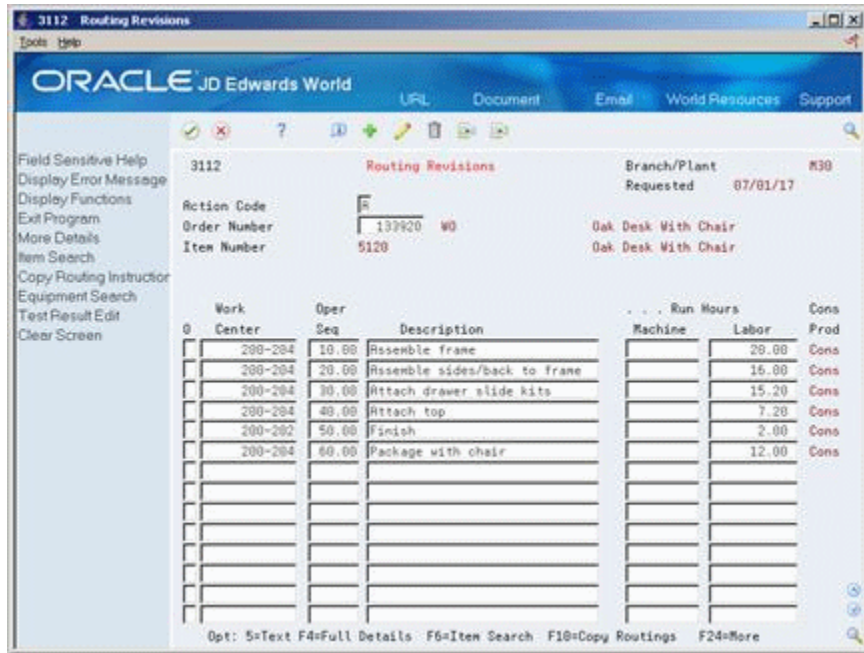
2. On Routing Revisions, choose the selection option to copy the routing.

3. Add the routing to the routing revisions.

4. Add the routing to your work order header.

5. Review the following fields:

    ■   Work Center

    ■   Operation Sequence Number

    ■   Description

    ■   Machine Run Hours

    ■   Labor Run Hours

    ■   Consumed/Produce/Both

6. Access the detail area.

Figure 4–11   Routing Revisions screen (Detail area)
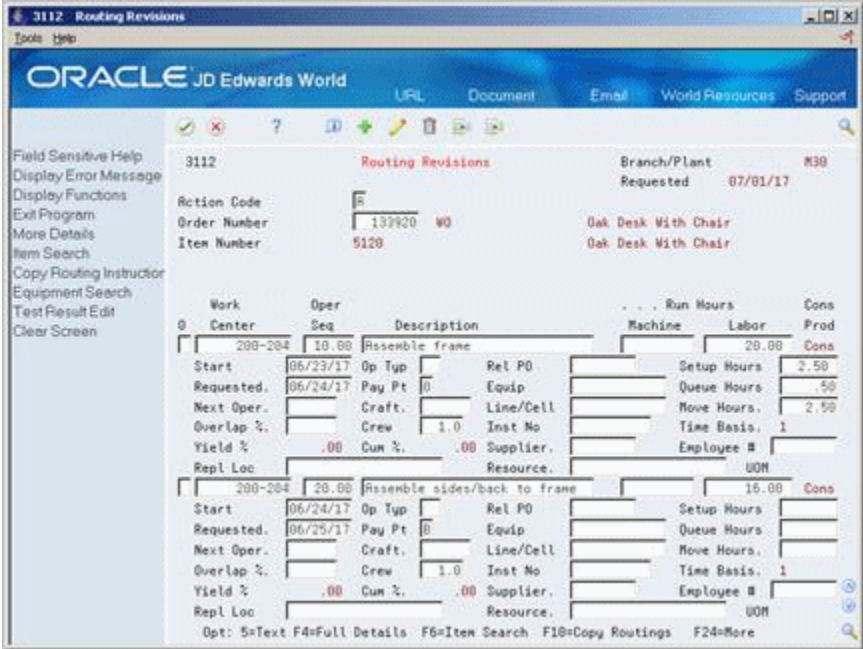
7. Review the following fields:

    ■   Equipment

    ■   Instruct Number

    ■   Start

    ■   Requested

    ■   Type Operation

    ■   Pay Point

    ■   Crew

    ■   Setup Hours

    ■   Queue Hours

    ■   Move Hours

Field	Explanation
Description - Line 2	A second, 30-character description, remark, or explanation.
Machine	This is the standard machine hours expected to be incurred in the normal production of this item.

Field	Explanation
Labor	This is the standard hours of labor expected in the normal production of this item.
	The run labor hours in the Routing Master table (F3003) are the total hours it takes the specified crew size to complete the operation. The hours are multiplied by the crew size during shop floor release and product costing.
	Form-specific information
	For engineering change orders:
	This is the standard hours of labor expected to complete this step for the ECO.
Cons Prod	This flag indicates whether consumed resources, produced resources, or both are defined for the operation. Possible values are:
	Blank No consumed or produced resources are defined for the operation.
	Cons Consumed resources (components, ingredients) are defined going into the operation.
	Prod Produced resources (co-products, by-products) are defined coming out of the operation.
	Both Both consumed resources (components, ingredients) and produced resources (co-products, by-products) are defined for the operation.
	Note: When using Process Manufacturing, if this field is highlighted, an intermediate exists for the operation.
Yield %	Represents the planned output yield percent for a step. The Planned Yield Update program uses this value to update the Cumulative Percent in the bill of material and the Operation Scrap Percent in the routing. Materials Requirements Planning uses the step scrap percent and the existing component scrap percent to plan component demand.
	Form-specific information
	This field is not input-capable. The system uses the value in the Routing table.
Op Typ	A user defined code (system 30, type OT) that indicates the type of operation. For example:
	A Alternate routing
	TT Travel time
	IT Idle time
	T Text (Enter text at Description)

Field	Explanation
Pay Point Code	A code that indicates if a work center will have labor, material, or both, backflushed through it when quantities are reported against operations occurring in the work center. The default value for this code is the routing sequence record unless overridden when the routing is defined. Valid codes are: 0 Not a backflush work center B Backflush material and labor M Backflush material only L Backflush labor only P Preflush material only If you leave this field blank, the system uses the value in the Enter/Change Routing table.
Crew	The number of people who work in the specified work center or routing operation. The system multiplies the Run Labor value in the Routing Master table (F3003) by crew size during costing to generate total labor dollars. If the Prime Load Code is L or B, the system uses the total labor hours for backscheduling. If the Prime Load Code is C or M, the system uses the total machine hours for backscheduling without modification by crew size.
% of Overlap	The overlapping of successive operations. The actual overlap percentage entered for the operation sequence is the percent by which that operation overlaps the prior operation. For example, if you enter 80%, this indicates that work can begin on the overlapped operation when 20% of the prior operation is completed. **Note:** **1.** Overlapping has no effect on move and queue calculations. **2.** The percent entered must be less than or equal to 100%. Enter percents as whole numbers: 5% as 5.00 *Form-specific information* If you leave this field blank, the system uses the value in the Routing table.
Unit or Tag Number	A 12-character alphanumeric code used 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 number stenciled on the equipment.
Time Basis	A user defined code (system 30, type TB) that identifies the time basis or rate for machine or labor hours entered for any routing step. You can set rates per unit, per 10, per 1000, and so on. The system uses the values in the Description-2 field on the User Defined Codes form for costing and scheduling calculations. The description is what the code represents, but is not used in calculations.
Setup Hours	The standard setup hours you expect to incur in the normal completion of this item.

Field	Explanation
Queue Hours	The total time (in hours) that an order is expected to be in queue at work centers and moving between work centers.
	The system stores this value in the Item Branch table (F4102). You can calculate this value using the Leadtime Rollup program or you can enter it manually. When you run the Leadtime Rollup program, the system overrides manual entries with calculated values.
Move Hours	The planned time in hours that is required to move the order from this operation to the next operation in the same work center.
	If the Routing Master values are blank, the default value comes from the work order routing. However, the system uses these values only for backscheduling variable leadtime items.

See Also:

- for instructions on running the Order Processing batch program.

4.4 Assigning Serial Numbers

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation.

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order

Alternatively, you can choose Assembly Serial Numbers from the Daily Order Preparation - Discrete menu (G3111). However, if you access Assembly Serial Numbers from the menu, you can use it only to locate existing serial numbers. You cannot update or add serial numbers when you access this program from the menu.

You assign serial numbers to your work orders to track serialized items within lots. You can assign serial numbers to work orders at any time. When you enter serial numbers, the system creates Serial Number Master records, as well as Work Order (Lot/Serial Numbers) LSNs. The system does not validate any serial number that you enter until you complete the work order. If you do not assign a serial number to a serialized assembly, the system requires a number before you can complete the work order. After you complete a work order, you cannot modify any serial numbers that are assigned to the assemblies.

You can assign serial numbers to specific assemblies at any time prior to completing the work order using Assign Work Order LSN. You can also assign serial numbers to specific assemblies at the time of work order completions using Associate Issued Item LSN's. You can associate serialized components to a specific assembly either at inventory issues or work order completions. You must issue serialized components in their respective primary unit of measure to allow for association.

Assembly Serial Numbers assumes a quantity of one in the unit of measure on the work order. For serialized assemblies, this will be the primary unit of measure. You cannot enter more serial numbers than the quantity on the work order.

Before You Begin

- Set the Lot Process Type and Serial Number Required fields on the Item Master Information form for serial number processing

What You Should Know About

Topic	Description
Deleting serial numbers	You can only delete serial numbers if there is no activity detected for the number.

To assign serial numbers

On Enter/Change Order

1. To locate the work order you want to assign serial numbers to, complete the following field:

   ■ Order Number

2. Choose Assign Serial Numbers.

Figure 4–12   Assign Serial Numbers screen
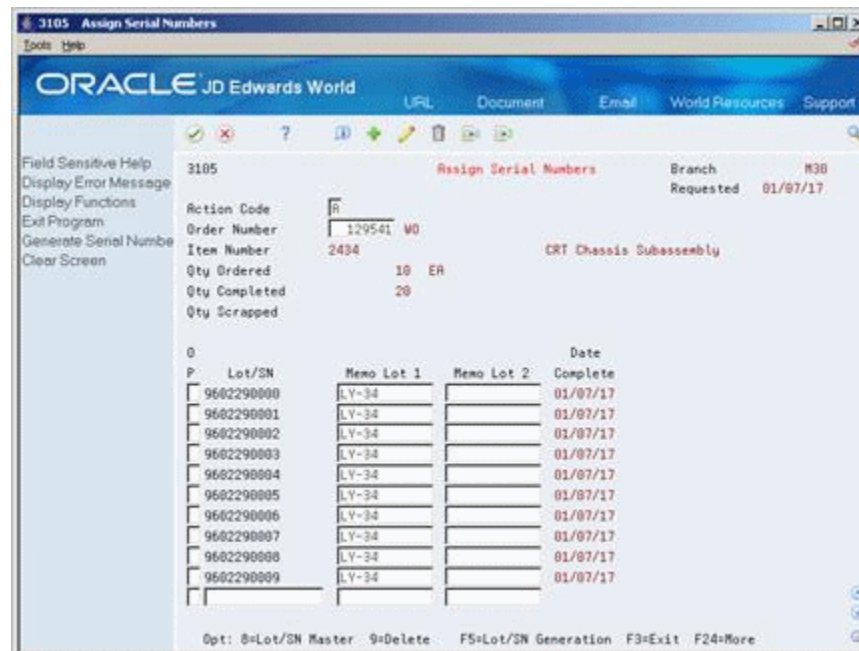
3. On Assign Work Order LSN's, choose LSN Generation to assign serial numbers to your work order.

4. To view the serial numbers that were assigned, relocate your order number.

5

Process Work Orders

This chapter contains these topics :

5.1 Processing Work Orders

After you enter a work order header, you use the Order Processing batch program to generate shop paperwork, including the parts list and routing instructions, for each work order header. The program's processing options allow you to perform a wide range of functions. You can:

- Choose to generate a parts list, the routing instructions, or both

- Indicate the date to use for effectivity checking

- Change the status code of the work orders processed

- Choose to print various information about the work order, such as the routing, parts list, sales order text, and so forth

- Print a shop packet summary that lists processed work orders

- Enter the unit of measure for backscheduling

- Issue inventory automatically through a batch program

- Choose to generate a shortage report for the work orders

- Indicate which versions of associated programs you want to access

- Enter sales order information for kit processing and print the text lines of sales orders

- Create work orders against prior revision levels

- Record activities using bar code capabilities when printing the pick list or the exception report

You can organize and separate these functions by setting up several DREAM Writer versions with different data selection and processing option values to accomplish different tasks. For example, you could set up one version to generate the parts lists and routings for work orders, another version to print shop paperwork, and one version to perform batch inventory issues.

This section contains the following:

- Run Order Processing

■ Printing a Summary of Work Orders

Before You Begin

■ Determine which processing options to use before running this program.

■ Set up valid work center locations. See Section 34.6, "Setting Up Work Centers."

■ Use the processing options to initiate Warehouse Management system integration. See *JD Edwards World Advanced Warehouse Management Guide* for information about setting up Warehouse Management.

What You Should Know About

Topic	Description
Processing assembly inclusion rules for work orders created from configurator	Use Order Processing to process assembly inclusion rules from configurator and generate a parts list and routing, if they do not already exist.
	Use rule type Q for components that the system will write only to the Shop Floor Control Parts List table (F3111). The system uses the Issue Type Code and Operations Sequence fields from the Assembly Inclusion Rules table (F3293) in this processing.
	Use rule type P to:
	■ Print components on the sales order as separate line items
	■ Display different levels for configured components during Sales Order Entry
	The system generates a parts list as follows:
	■ Using data from the Sales Order Detail table (F4211) generated from the parts list rules during Sales Order Entry to create records in the Shop Floor Control Parts List (F3111)
	■ Processing rule type Q for components to write additional components to the parts list
	The system generates a routing by processing the related routing rules.
Blending, filling, and packaging	The system checks for any incompatibility between blending tank's or fill line's associated allowed product matrix and the work orders parts list, and displays any errors.
	See *JD Edwards World Bulk Stock Management Guide*.
Regenerating the parts list	When you run Order Processing, the system deletes any previously generated or manually entered parts list that is attached to the work order. You can manually enter changes to the system-generated parts list. If you add parts to the list, the system commits them from the primary location in the Item Location program.
	You should not regenerate the parts list if any part on the list has been issued to the work order. If you regenerate the parts list after material has been issued, you must manually adjust the list to prevent duplication of component quantities. You should also be aware that the Work Order Variance file (F3102) will be incorrect if you regenerate the parts list after material has been issued.

Topic	Description
Regenerating the routing instructions	When you run Order Processing, the system deletes any previously generated or manually entered routing. You should not regenerate the routing instructions for the work order if hours and quantities are recorded against any of its operations.
	You can set the processing options for order entry to update the routing instructions if you change the work order. The system recalculates the run labor and run machine hours based on the quantity ordered on the work order.
	If the system finds an error in calculating the date for an operation sequence, it enters the work order start and requested dates for that operation.
Consolidating a parts list	Use a processing option to print a consolidated parts list which provides you with a means to pick inventory needed for the manufacturing process. You may process many work orders in a single run.
	The items are consolidated based on item name, location, lot, unit of measure, and branch/plant. The system prints each branch/plant encountered on a separate page and prints each occurrence of an item that is in a different location, lot, or unit of measure on a separate line.
Parts list substitutions	If substitutes have been defined for items on the parts list and processing option 23 has been set on Generate and Print Work Orders (P31410), substitutions will be made automatically, so long as the Manufacturing Constants (P3009) are set to perform a hard commit at the creation of the parts list. When selecting substitutes, the system will look at the availability of substitute items based on the order that they appear on the Component Substitutes screen (3002S).
	Bill of Material substitutes may be used in a soft commit environment. Once the parts list has been created, option 7 can be taken against a component on the Work Order Parts List program (P3111) to bring up the Substitute Availability Window. After a selection has been made, the soft commitments for the original component are relieved, whilst the substitute items are added to the parts list and their quantities soft committed.
	Item Cross-Reference substitutions can also be entered on items in a parts list. They can only be entered manually.
Warehouse Management interface	If you use Warehouse Management and process a work order, the system does not search for inventory. Instead, the system generates a pick request. The pick request notifies you of the need for materials from the warehouse.
	After the system creates the pick request, the Warehouse Management system processes instructions and creates suggestions for you to confirm. Then, the system updates the parts list and increases the quantity on hand for the To location and decreases the quantity on hand for the From location.
	You can specify in the processing options if you want a consolidated pick list for multiple work orders to be printed, as well as the individual pick lists.

Topic	Description
Quality Management test results	As you process work orders, you can use processing options to set values for the status of the work order and operation lot if the tests fail.
	See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.

See Also:

- Appendix B, "Lead Times" for an explanation of the calculation of fixed and variable leadtimes.

5.2 Run Order Processing

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation.

From Daily Order Preparation - Discrete (G3111), choose Order Processing

When you run Order Processing, the system creates the engineering variance in the Work Order Variance table (F3102). The variance shows the difference in costs from when the standards were set.

> **Note: :** When you use Order Processing to generate parts lists or routings for your work orders, the system replaces any parts lists or routings that were previously attached to the work orders

When you run Order Processing the system generates an exception report if:

- The system previously created pick requests but did not re-generate a parts list

- The system did not create a pick request because "Warehouse Control" was not set to Y

If you perform costing by work center, (the Cost by Work Center field is set to Y in the Manufacturing Constants program (P3009)) after this program attaches the parts list and routing instructions, it creates production costs at the work center level in the Production Cost table (F3102) based on costs in the Item Cost Component Detail table (F300261).

Processing Options

See Section 35.2, "Generate and Print Work Orders (P31410)."

5.2.1 Printing a Summary of Work Orders

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation.

From Periodic Functions - Discrete (G3121), choose Work Order Summary

The Work Order Summary report lists selected work orders in the Work Order Master table (F4801). You can use this report to review work orders in your system. The report shows the planner ID, item number, order quantity, completed quantity, and start and due dates.

Figure 5–1   Work Order Summary report

```
31400                                    JD Edwards World                        Page    -    2
                                         Work Order Summary                      Date    -  3/17
  W.O                                                        . . . .Quantity. . . .    . . . . . Dates . . . . .
Number  Ty   Description          T P St Planner   Item Number    Ordered   Completed  UM Started    Due    Last Upd
-------- --  -------------------- - - -- --------  ------------- ----------- ---------- -- -------- -------- --------
    400 WO Rework Electrical      R H 10                                                                    11/19/17
    764 WO Electrical            D H 10   55222                                                             07/01/17
    772 WO Electrical Phase II   D H 10   55222                                                             07/01/17
    781 WO Electrical Phase III  D H 10   55222                                                             07/01/17
    799 WO Other Electrical      D H 10   55222                                                             07/01/17
    801 WO Electrical            D H 10   55222                                                             07/01/17
    810 WO Hydraulic             D H 10   55222                                                             07/01/17
    828 WO Structural            D H 10   55222                                                             06/30/17
    941 WO Quote for Engineering Ph Q  10  7020                                                             07/01/17
    959 WO Quote for Engineering Ph Q  10  7020                                                             07/01/17
    967 WO Quote for Engineering Ph Q  10  7020                                                             07/01/17
    975 WO Text Template for Quotes G  10                                                                   07/01/17
    983 WO Text Template for Quote  G  10                                                                   07/01/17
   1901 WO Replacement of Air Handl 1 1 MH                          1                                       05/26/17
   1919 WO Convert Off. to Conferen       6001                      1                                       08/07/17
   2065 WO OAK SHELF UNIT             97   9200                                        11/26/17    06/22/17
   2137 WO Replace locks                                                                                    11/19/17
   2305 WO Safety Inspection      M H      7701                      1                                       05/25/17
   2318 WO Oil Change             M 2 IA   7701                      1                                       02/26/17
   2327 WO Rotate Tires           M M                                1                                       05/25/17
   2381 WO Stain, assemble material                                                                         11/12/17
   2399 WO Install shelves: wall, f                                                                         09/28/17
   2401 WO Cabinet trimwork, cleanu                                                                         11/12/17
   2468 WO Install bookcases.                                                                               11/12/17
   2487 WO Replace Pump Motor     1 1 MA   55222                     1                            04/01/18 05/28/17
   2604 WO Purchase of Software                                                                             10/08/17
   2605 WO Purchase of Software       IA                                                                    10/08/17
   2612 WO Software implementation                                                                          10/08/17
   2621 WO Safety Inspection      6 3 ML   7701                      1                            01/01/18 05/28/17
   2647 WO Safety Inspection      6 3 ML   7701                      1                            01/01/18 05/26/17
   2663 WO Safety Inspection      6 1 MA   7701                      1                            01/15/18 05/25/17
   3084 WO Safety Inspection      6 3 MA   7701                      1                            01/09/18 05/25/17
   3228 WO Safety Inspection      6 3 50   7701                      1                            01/09/18 03/03/17
   3236 WO Safety Inspection      6 3 MA   7701                      1                            01/09/18 05/25/17
```

6

Understand Commitments

This chapter contains the topic:

-

6.1 About Commitments

A commitment is a reservation for the parts that are needed on a work order. You can define commitments by branch or work center. You can change commitments manually or through a batch program.

When you attach a parts list to a work order header, the system creates commitments for the required quantity of each component. The commitment reserves the material for a particular work order.

The JD Edwards World system allows you to use hard commitments or soft commitments in a work order, or let the system change the commitment from soft to hard when you process the work order. You can also set up the system to place a soft commitment at the inception of the work order, and change it to a hard commitment as the start date of the work order approaches.

If, at any time, the location specified on the parts list is not the primary location, the system hard commits that line item.

Inventory remains committed until the system records the issues. Then, the system reduces the on-hand quantity and the committed quantities.

If you use lot processing, the system creates commitments based on the lot expiration dates, and grade and potency ranges for the lot numbers.

The parts list for the work order might specify a range of grade or potency values that can be used on the order. The system commits the lot of the grade or potency within the range you defined for the item. The system can also search inventory that you need for the order in a certain sequence. For example, you might want to specify a specific lot number, grade, or potency.

Use the following table to identify the processing options available for both the Enter/Change Order and Order Processing programs.

Program	Description
Enter/Change Order	Automatically generate: ■ Routing instructions when you create the parts list online ■ Parts list when you create the routing instructions online

Program	Description
Order Processing	Specify:
	■ Either the work order effective date or start date for effectivity checking
	Automatically:
	■ Use substitutes for items out of stock and blanket order release processing
	■ Generate the parts list, or routing instructions, or both

6.1.1 What Is a Soft Commitment?

A soft commitment allows you to tentatively commit the inventory to a work request, although the inventory is not physically set aside and might be used for another work order. Soft commitments also enable you to compare material that is needed for current work requests to available inventory.

6.1.1.1 What Is a Hard Commitment?

A hard commitment physically designates inventory in a specific location to a particular work order.

See Also:

- Chapter 8, "Understand Grade and Potency,"
- Chapter 9, "Understand Lot Processing."

6.1.2 Where in the Process Do You Commit Inventory?

Figure 6–1   Process Flow
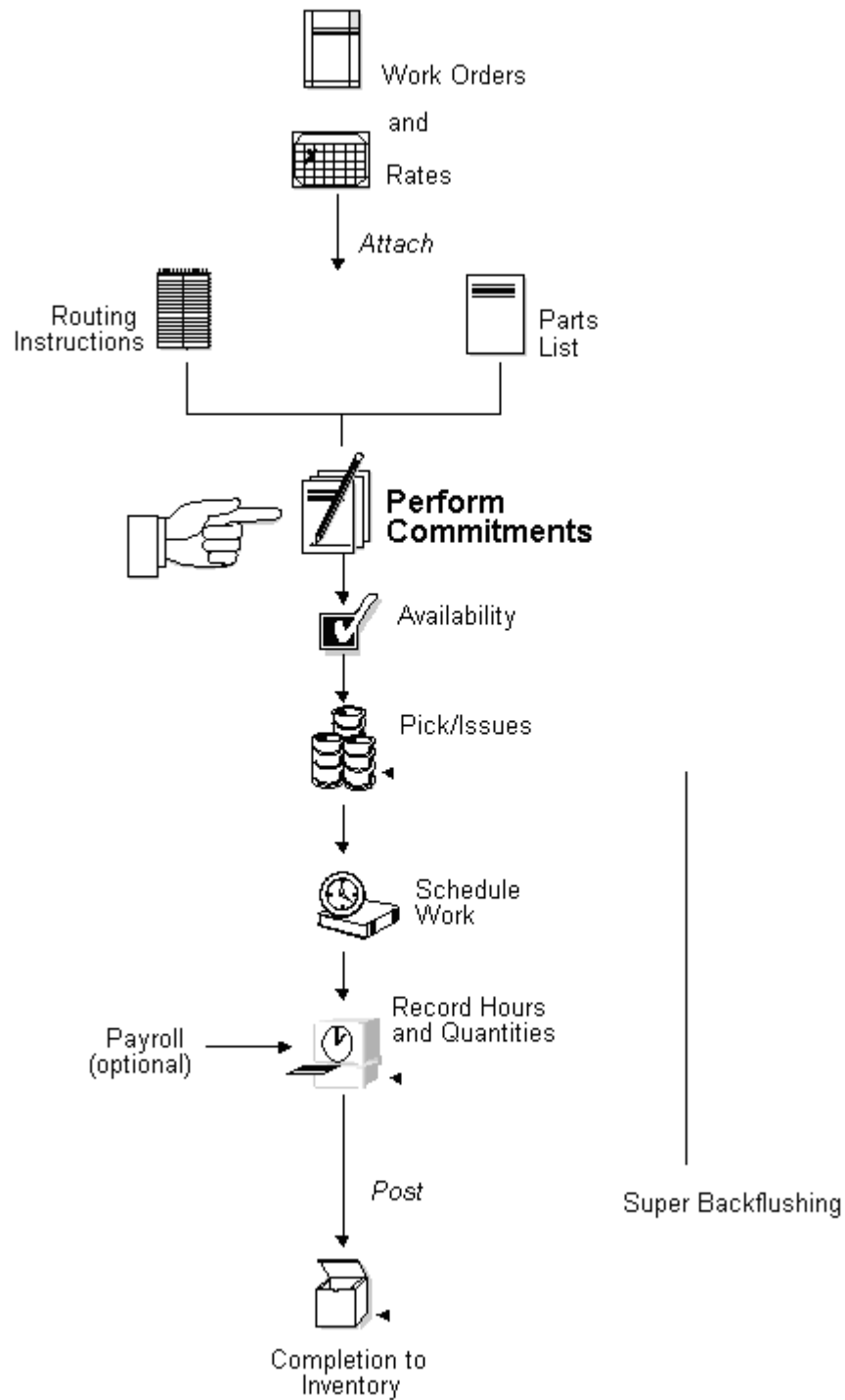
7

Work with Commitments

This chapter contains these topics:

When a parts list is attached to a work order header, either manually or using the batch program, the system automatically creates commitments for the components.

When you define commitments, you set up the parameters that determine how the commitment is made. If you are using lot control, you also manage commitments by grade and potency. Repost commitments when you need to clear commitments and reassign quantities to other work orders.

7.1 What You Should Know About

Topic	Description
Activating substitution checking	When the system creates commitments, either manually or using the batch program, you can activate a processing option to verify if substitutes exist for an item. When you create commitments manually, the item number is highlighted during the attachment process.

7.2 Defining the Commitment Rules

When you create a commitment manually or using the batch program, you must define commitment rules for the work order:

- Define the commitment method for the item
- Define the commitment control and type of commitment

To define the commitment method for the item

Navigation
From Inventory Management (G41), choose Inventory Master/Transactions

From Inventory Master/Transactions (G4111), choose Item Branch/Plant Information

You can define the method that the system uses when creating a commitment. These methods are by location, lot number, or lot expiration date.

On Item Branch/Plant Information

Figure 7–1   Item Branch/Plant Information screen
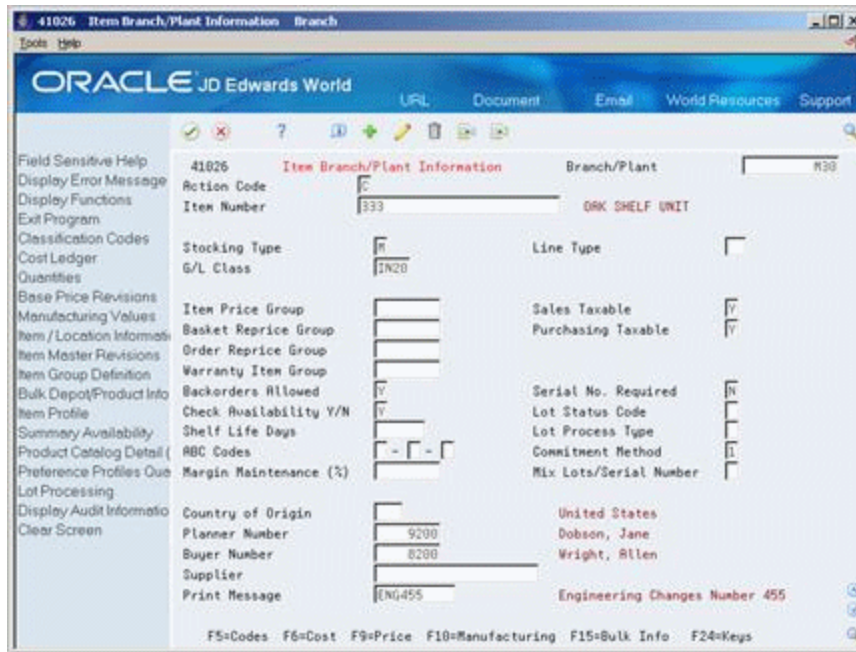
Complete the Commitment Method field.

Field	Explanation
Commitment Method	A code that indicates the method that the system uses to commit lot items from inventory. Valid codes are:
	1. The normal commitment method for inventory (default). The system commits inventory from the primary location and then from secondary locations. The system commits inventory from the locations with the most inventory before committing inventory from locations with the least. The system commits backorders to the primary location.
	2. The inventory commitment method by lot number. The system commits inventory by lot number, starting with the lowest lot number and committing orders to available lots.
	3. The inventory commitment method by lot expiration date. The system commits inventory from the locations with the earliest expiration date first. The system considers only locations with expiration dates greater than or equal to the sales order or parts list requested date.

To define the commitment control and type of commitment

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Manufacturing Constants

You can define the commitment control method and type of commitment for the work order. The control determines how the system commits inventory to a work order, and limits the inventory location to which commitments are made. The type specifies whether the commitment is soft, hard, or starts out soft and later becomes hard.

On Manufacturing Constants

Figure 7–2 Manufacturing Constants screen

Complete the following fields:

- Commitment Control
- Hard/Soft Commit

Field	Explanation
Commitment Control	Determines how the system commits inventory to a work order, and limits the inventory location to which commitments are made. The system activates this field only when you create hard commitments. Valid codes are:
	■ Make commitments to the primary location in the branch/plant where the work order originates.
	■ Split the parts list and commitments to fill any component shortages. The system can cross branch boundaries to fill requirements. In this case, the system uses the next alphabetical branch/plant listed in the table that occurs after the branch/plant on the work order header. For example:
	CAL
	CHI
	CLE
	HOU
	If the system starts committing inventory at branch/plant CHI, it accesses CLE as the next branch/plant. If inventory is low in all locations, the system makes the remaining commitments to the primary location of the branch/plant on the work order header.
	■ Same as 2, but the system cannot cross branch boundaries.
	When you set the Commitment Method field in the Item Branch/Plant table to 2 or 3 (lot number or expiration date control), you must set this field to 3.

Field	Explanation
Hard/Soft Commit	Determines how the Shop Floor Control system commits inventory. Valid codes are: 1. The system performs a hard commitment at the creation of the parts list. The hard commitment remains in effect until inventory is relieved. 2. The system performs a soft commitment at the creation of the parts list. Changed to a hard commitment during the pick list print process for the work order. The hard commitment remains in effect until inventory is relieved. 3. The system performs a soft commitment at creation of the parts list. The soft commitment remains in effect until inventory is relieved. For World: When the hard/soft commit option is set to 2 or 3, any line item in the parts list may be hard committed prior to printing or relieving the inventory. **Note:** When you set the Commitment Method field in the Branch/Plant Constants form to 2 or 3, you must use 1 or 2 for this field because a hard commitment must be performed.

7.3 Defining Commitments at a Work Center Location

Defining commitments at a work center consists of:

- Defining the location at the work center

- Defining the work center and location in the items routing

- Defining the branch and parent item for the bill of material

- Defining how the system commits inventory during the backflush process for the work center

To define the location at the work center

Navigation

From Product Data Management (G30), choose Daily PDM Discrete

From Daily PDM Discrete (G3011), choose Enter/Change Work Center

On Enter/Change Work Center

Figure 7–3   Enter/Change Work Center screen
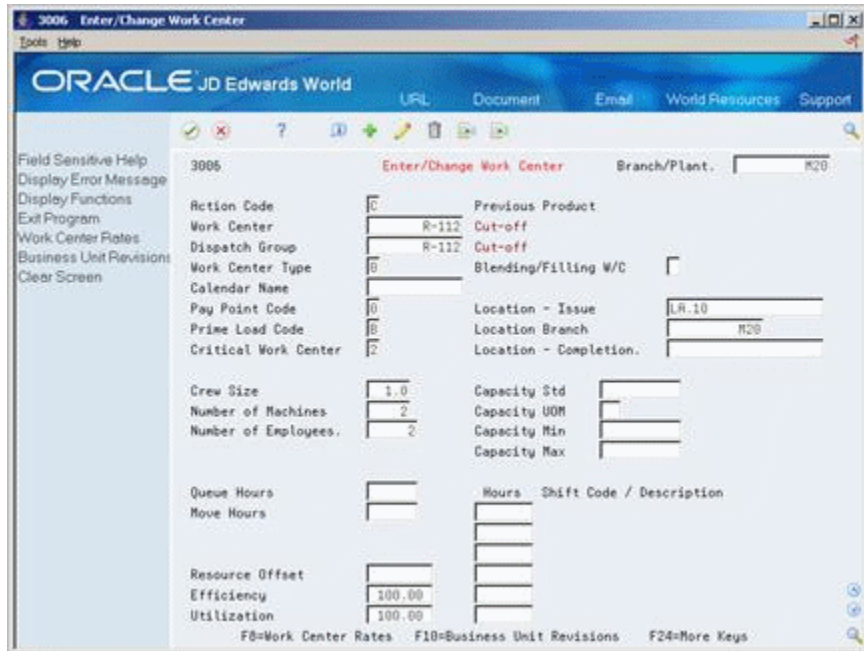
Complete the following fields:

- Work Center

- Location - Issue

To define the work center and location in the items routing

As an alternative to defining routing information manually, you can use the Routing Master Revisions - Z File program (P3003Z) to import an extensive amount of process data into your system. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

Navigation

From Product Data Management (G30), choose Daily PDM Discrete

From Daily PDM Discrete (G3011), choose Enter/Change Routing

On Enter/Change Routing

Figure 7–4   Enter/Change Routing screen
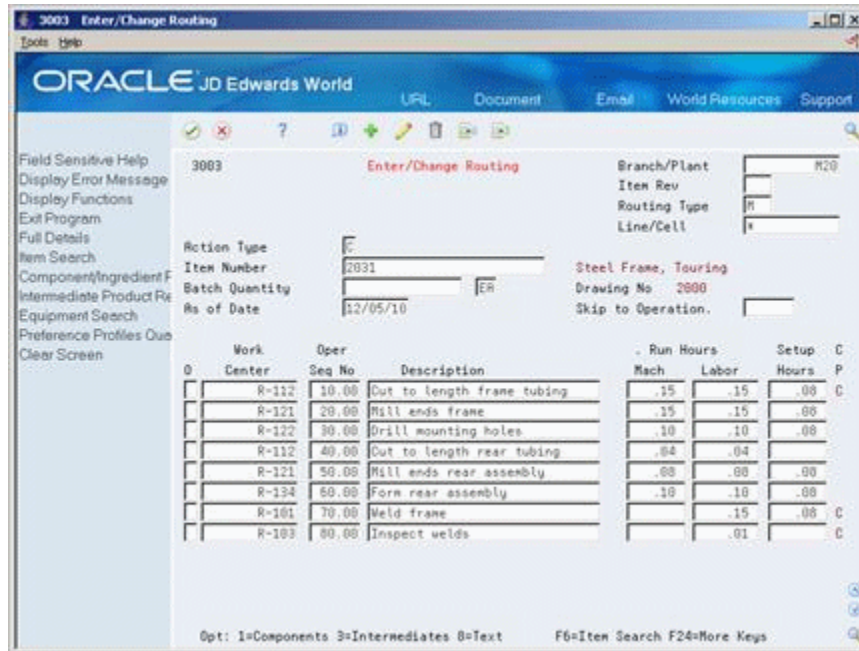
Review the following field:

■   Work Center

Press F4 to view the Full Details

Figure 7–5   Enter/Change Routing screen (Details area)
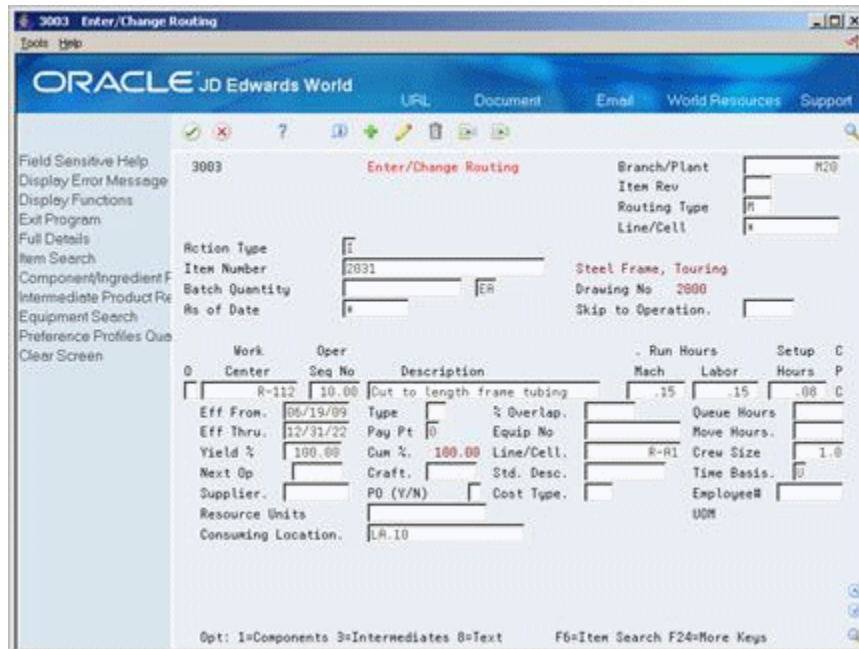
> **Note:**   Consuming location should match the Location Issue on the
> Work Center.

Field	Explanation
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant.
	Form-specific information
	This field overrides the location defined in the work center master, which allows for multiple work center locations.

To define the branch and parent item for the bill of material

From Product Data Management (G30), choose Daily PDM Discrete

From Daily PDM Discrete (G3011), choose Enter/Change Bill

On Enter/Change Bill

Figure 7–6   Enter/Change Bill screen
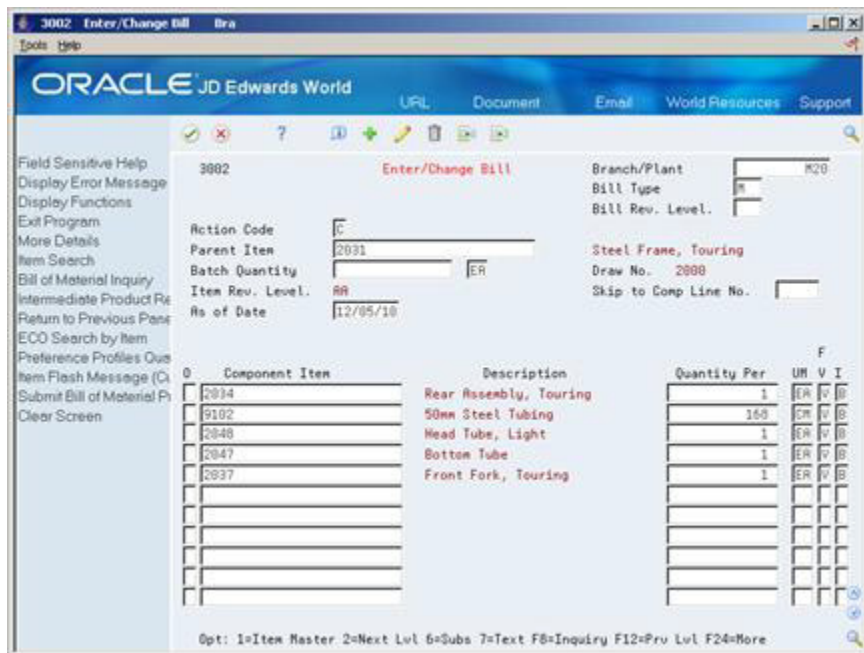
1. Complete the following fields:

   ■   Branch/Plant

   ■   Parent Item

2. Access the detail area.

Figure 7–7   Enter/Change Bill screen
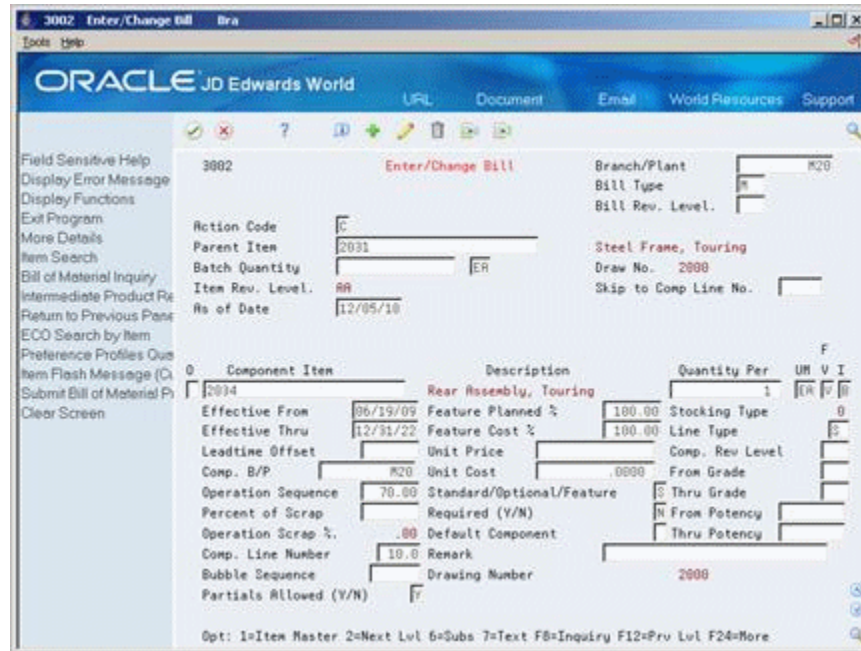
3. Complete the following field:

    ■   Operation Sequence

4. Choose BOM Component Master Text.

5. Create a separate generic text entry for a component item of the parent item.

6. This window enables you to provide more information and specific instructions per component. You can also use the User Information and Text Model Selection windows to view user and date updates, as well as model selections.

What You Should Know About

Topic	Description
Attaching notes	Access the Notes window to create a separate generic text entry for each operation sequence of the routing. This window enables you to provide more information and specific instructions per step. You can also access the User Audit Information and Select Notes Template windows to view user and date updates, as well as templates.
Blending, filling, and packaging	Use the Enter/Change Bill program to add parts associated with a manufacturing product. The system allows a percent bill to be added to 100% and additional quantities to include fixed or variable definitions.
	See *JD Edwards World Bulk Stock Management Guide*.

To define how the system commits inventory during backflush

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Manufacturing Constants

On Manufacturing Constants

Figure 7–8   Manufacturing Constants screen
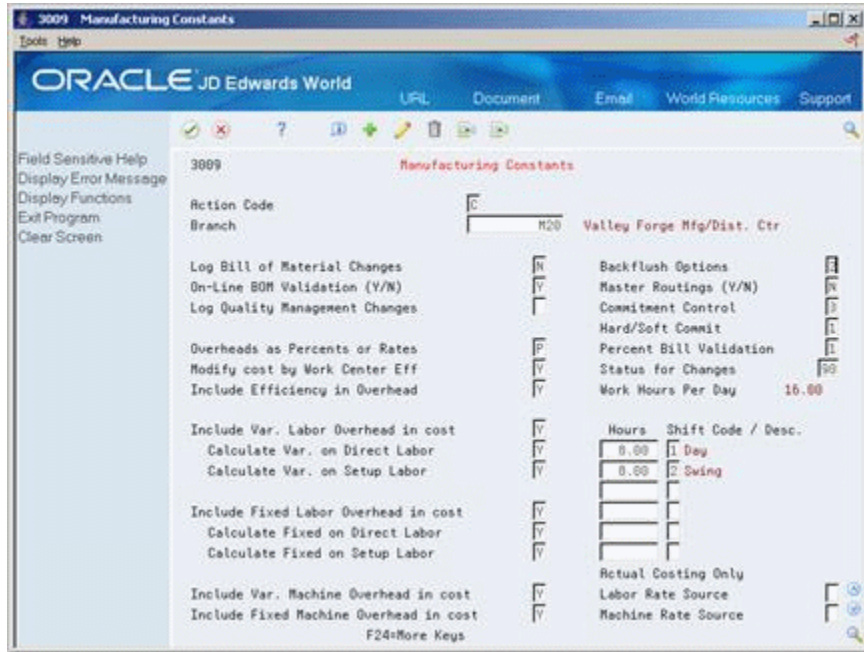
Complete the following field:

- Backflush Options

Field	Explanation
Backflush Options	Determines how the system performs commitment and release of inventory during the backflush process. Valid codes are:
	1. 1 Create a standard parts list based on the value in the Commitment Control field in the Manufacturing Constants table (F3009).
	2. 2 Create a parts list, committing to the location indicated in the Work Center Master table (F30006). The Operation Sequence field in the Bill of Material table (F3002) determines the work center that is used.
	Note: You must create the work order routing before the parts list. If you are running work order generation, the work order routing and the parts list must be created at the same time.

7.4 Managing Commitments for Grade and Potency Controlled Items

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order From Enter/Change Order, choose Parts List

Grade and potency controlled items must be lot controlled. When the system creates commitments for grade and potency controlled items, it moves the grade and potency range to the parts list. Only those lots within the range are eligible for commitments. The system makes the commitments in date sequence.

For example:

Figure 7–9   Parts List with Grade and Potency Controlled Items

```
                Exp.                On
     Location   Date     Grade      Hand      Commit
  P                                              50
  S  9406220000 08/31    A01         50          50
  S  9406230000 08/15    A02        300         300
  S  9406240000 12/12    A03        400         400
  S  9406250000 09/01    A04          5
  S  9406260000 09/01    A05       5000
```

In the above example, the work order quantity required is 800, and the grade range is A01-A03.

The system commits the quantities using the primary unit of measure. If all of the commitments cannot be made against specified lots in the range, the system commits the remainder to the primary location at standard grade or potency.

See Also:

■   Chapter 8, "Understand Grade and Potency."

7.5 Creating Commitments for Potent Units

When you define a unit of measure as a potent unit of measure, and the system creates commitments, the system converts the quantity to the primary unit of measure. For example, if the primary unit of measure is GA (gallons), the component unit of measure is GP (potent gallons), and the standard potency is 70%, the parts list requires 500 GP.

Figure 7–10   Parts List with a Potent Unit of Measure

```
                           On      Potent     Commit
     Location   Potency    Hand    Units    at standard &70%
  P                                                 43
  S  9406220000  80%        50       40            50
  S  9406230000  90%       300      270           300
  S  9406240000  40%       400      160           400
```

In the above parts list example, only the equivalent of 470 GPs are available. The remaining 30 GPs are committed back to primary (30 GP/.7 = 43 GA).

Using the above example, if the primary unit of measure is GP, the potency associated with it in the Lot Master table (F4108) is only for conversion purposes. Potent units of measure are assumed to be 100% potent.

Also, a lot that consists of 100 potent units with a potency of 75% means that it is the equivalent of 133.3333... physical gallons (100/75). It is important for those companies that store in potent units to know the physical size of the inventory.

> **Caution:** The system issues a warning message when it changes the standard value for grade or potency on the branch/plant record. Commitments can be brought out of balance if the primary unit of measure for an item is non-potent and commitments exist from a sales order or work order in a potent unit of measure. The reverse is true as well. You can correct this by running a repost for the sales order and work order. JD Edwards World recommends that you run sales order reports, and repost the purchase order, after you repost the work order.

Creating commitments for potent units consists of:

- Defining potent units
- Setting up a unit of measure conversion

To define potent units

Navigation
From General Systems (G00), choose General User Defined Codes

On General User Defined Codes

Figure 7–11   General User Defined Codes screen
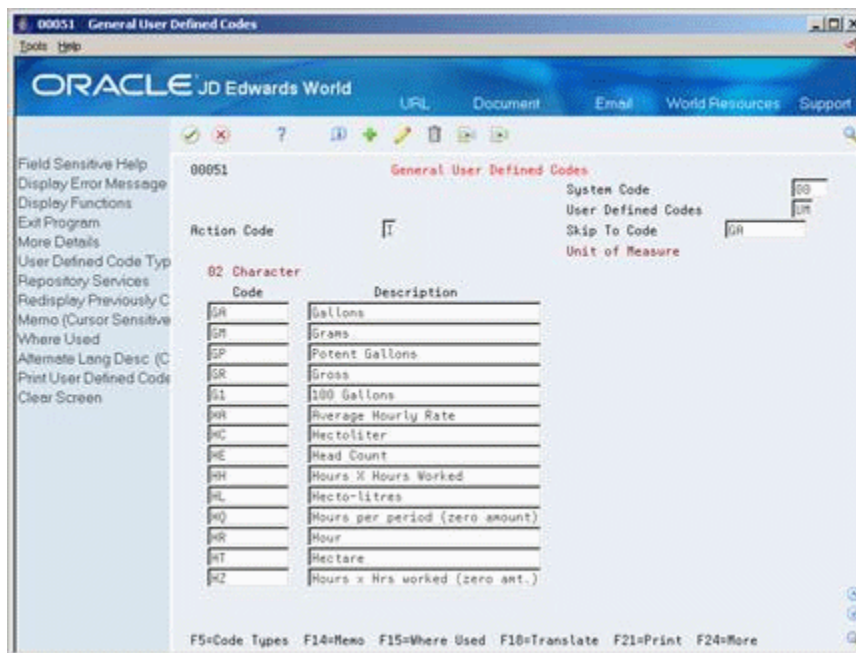
1. Access the detail area

Figure 7–12   General User Defined Codes screen (Detail area)

2.   Complete the following field:

■   Special Handling Code

Field	Explanation
Special Handling Code	A code that indicates special processing requirements for certain user defined code values. The particular value you enter in this field is unique for each user defined code record type.
	The system uses the special handling code in many ways. For example, special handling codes defined for Language Preference specify if the language is double-byte or if the language does not have uppercase characters. Programming is required to activate this field.
	Form-specific information
	If a "P" is in the second position, the system identifies that unit of measure as a potent unit of measure.

To set up a unit of measure conversion

Navigation

From Inventory Management (G41), choose Inventory Master/Transactions

From Inventory System Setup (G4141), choose Standard Units of Measure

You set up a unit of measure conversion for potent units so that the system can:

■   Convert potent units of measure to physical units of measure

■   Convert physical units of measure to potent units of measure

On Standard Units of Measure

Figure 7–13   Standard Units of Measure screen
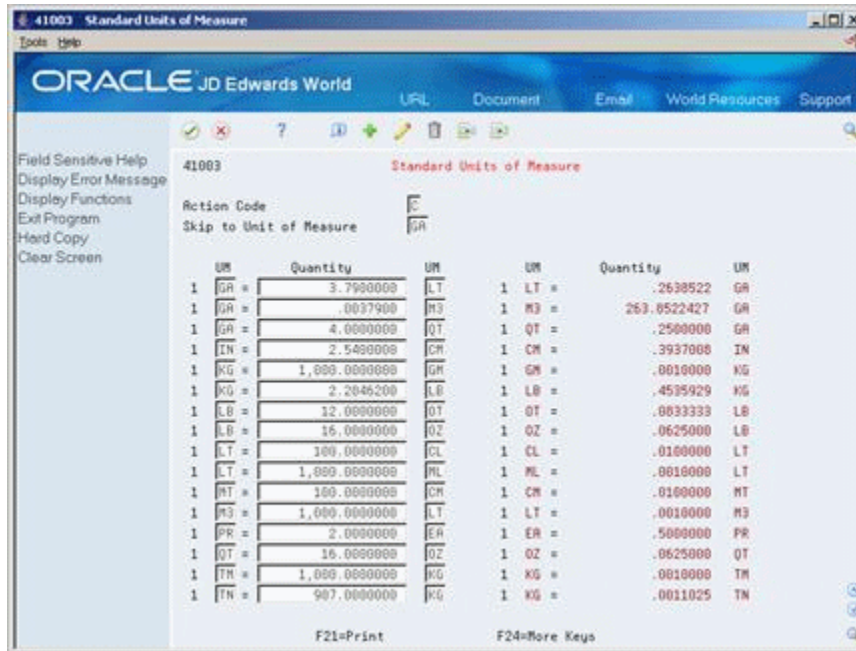
Complete the following fields:

- Unit of Measure

- Quantity

- Unit of Measure

Processing Options

See Section 35.3, "General User-Defined Codes (P0005A)."

7.6 Reposting Work Order Commitments

Navigation

From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Repost Open Quantities

After you set up commitments, run the Repost Open Quantities batch program to:

- Clear outdated or invalid commitments

- Repost the commitments and on-order quantities specified in your work order to current requirements

Processing options allow you to limit the repost process to those work orders below a certain status.

Before You Begin

- Verify that the Item Branch table (F4102) is not in use.

- Indicate whether you want inventory hard or soft committed at each branch. See Section 7.2, "Defining the Commitment Rules."

What You Should Know About

Topic	Description
Inventory interfaces	The system does not repost bulk items and lines that do not have an inventory interface.
Reposting open and on-order quantities	When you repost open and on-order quantities on your work orders, the system:

When you repost open and on-order quantities on your work orders, the system:

- Clears (sets to zero) all values for the quantity and quantity committed in the Item Branch table (F4102).

- Reposts the quantity value in the Item Branch table for the parent item. The system uses the information from the Work Order Master table (F4801) and the following calculation: Quantity Ordered - (Quantity Completed + Quantity Scrapped)

- Reposts the quantity committed value for components in the Item Branch table for the location specified on the work order parts list for the item. The system uses the information from the Shop Floor Control Parts List table (F3111) and the following calculation: Quantity Required - Quantity Issued

Processing Options

See Section 35.4, "Work Order Repost (P3190)."

8

Understand Grade and Potency

Manufacturers in the process industry need full control over the quality of products they make or buy. Examples are the food, chemical, and pharmaceutical industries. Grade and potency qualifications allow you to categorize your products more specifically and trace their movement through the manufacturing/distribution process.

In JD Edwards World systems, grade and potency are mutually exclusive. You can only use one or the other to categorize an item. All items that are grade or potency controlled must also be tracked by lot number. Grades and potencies divide items by their specific makeup or characteristics without changing item numbers. Lots identify a specific group of items with the same item number.

For grade and potency controlled items, you can enter a standard (preferred) value for each item. You can also enter a range of acceptable values that allow you to continue operations with grades or potencies that are outside the standard value, but still acceptable for your use. This helps to establish and maintain quality levels in your products, but is flexible enough to keep your operations running when the standard level of product is not available.

The grade or potency for each lot is used by programs that calculate on-hand and available quantities. All items that are grade or potency controlled must be lot controlled.

Grade identifies an item's particular specification makeup, and allows the system to separate one lot from other production lots without changing the item number. Examples are diamonds, lumber, and raw turquoise.

You can use grades to classify items by their characteristics, such as quality, strength, or integrity. If you activate grade control, certain functions edit for grades and will not perform transactions if the items involved do not meet the grade parameters.

Potency refers to the percentage of active ingredient within a solution, for example, 40% solution of hydrochloric acid, 3.2 beer versus standard percentages of alcohol, and coffee with varying strengths of caffeine.

Only items that meet the grade or potency range requirements stated in the bill of material are issued to the shop floor for production. Components outside the range will not show as available or on-hand in the Shop Floor Control material inquiries.

The system records grade or potency and lot transfer transactions in the item ledger and the general ledger, so that accounting is incorporated into the tracking.

You can order only a certain grade or potency of an item. Sales order and purchase order systems accommodate grade and potency standards and ranges.

This chapter includes the following topics:

- Section 8.1, "Grade and Potency Control,"
- Section 8.2, "Lot Control Items."

8.1 Grade and Potency Control

You set up the following grade or potency control fields on the Manufacturing Data form:

- Grade/Potency Pricing - determines how to price grade or potency controlled items in Sales Order Management.

- Grade Control - identifies whether the item is grade controlled.

- Potency Control - identifies whether the item is potency controlled.

- Standard Grade - identifies the standard grade of the item, for example, premium or average. The value entered here provides the default for several forms in manufacturing.

- Standard Potency - identifies the standard percentage of active ingredients normally found in an item. The value entered here provides the default for several forms in manufacturing. The potency standard is used for the potent unit of measure conversion, in certain cases.

- From and Through Grade - defines the allowable grade ranges for an item.

- From and Through Potency - defines the allowable potency ranges for an item.

The system uses these values when you create a branch/plant record for the item.

Define grades you will use in the user defined code list 40/LG.

Define the user defined codes for the potent units of measure in the user defined code table 00/UM. For each potent unit of measure that you define, you must enter P in the second space of the Special Handling Code field, located in the detail area of the User Defined Code form.

Define a conversion for each potent unit of measure to a physical unit of measure in the Unit of Measure Conversions form. For example, 100 gallons of a solution at 80% potency = 80 potent gallons, 80 potent gallons of a solution at 80% = 100 gallons.

8.2 Lot Control Items

Use the Item Branch/Plant Information form to identify the item as a lot controlled item. Grade and potency controlled items must be lot controlled. Define one of the following values as the Lot Process Type:

- Blank = Lot assignment is optional. Numbers must be manually assigned. Quantity can be greater than one.

- 1 = Lot assignment is used. Numbers are assigned by the system using the system date in YYMMDD format. Quantity can be greater than one.

- 2 = Lot assignment is used. Numbers are assigned in ascending sequence using the next number convention. Quantity can be greater than one.

- 3 = Lot assignment is required. Numbers must be manually assigned. Quantity can be greater than one.

Figure 8–1   Item Branch/Plant Information screen

When you attach a parts list to a work order header, commitments are created for the components. How these commitments are created depends on the parameters of Commitment Method, Commitment Control, and Hard or Soft Commit. After you set up these parameters, commitments can be created in the same manner using both the Enter/Change Order or Order Processing programs.

When an item is defined as lot controlled, the system moves the grade or potency range to the parts list and allows only those lots within the range eligible for commitments. Any remaining quantities are committed to the primary location.

9

Understand Lot Processing

This chapter contains the topic:

- Section 9.1, "Overview."

9.1 Overview

Lot processing allows you to manage and maintain information about groups of items. For example, you can have the system assign lot numbers to groups of perishable items based on receipt dates to identify the items that you must sell first. You can view current information about each lot, such as the quantity of available items, and the transactions that have affected the lot.

Lot control is beneficial for identifying groups of items that are components of a final product. For example, if you assign lot numbers to both bicycle tires and bicycles assembled from the tires, you can:

- Identify the lot number for the tires that were used to build a specific bicycle

- Identify all bicycles that were assembled from a specific lot of tires

If you later find that a particular lot of tires is defective, you can immediately identify and recall all bicycles that were assembled from the defective tires.

A lot usually contains one type of item, but you can set up system constants to allow different types of items in the same lot. If a lot contains different items, the system maintains lot information for each lot number and item. You can also set up system constants to restrict a lot to one type of item and still allow that lot to exist in multiple warehouses.

In manufacturing, you can complete items to multiple lots in inventory from a single work order. When you report multiple lot completions, the system links materials issued to the work order to the completed items by lot number, by work order number, or by both. If you do not enter the lot number of the end item at the time of issue, the system only uses the work order number to link the component to the end item.

Process manufacturing industries generally operate in a lot-controlled environment, and many of the ingredients produced or consumed must be used before their expiration dates. Because ingredients cannot be used after their expiration dates, planning cannot use the unconsumed balance. Companies do not want to acquire unusable ingredients at any point in their operations.

Expiration planning considers the expiration dates of lots while calculating the quantity on-hand and consumes the lot quantities in the order of expiration dates. That is, lots with the most current expiration dates are consumed first. This is the first-in, first-out (FIFO) method. For example, when milk is delivered to a store, it is

placed in the front of the shelf and continuously rotated so that the oldest product is sold to the customer first.

Expiration planning is important because whoever in the chain has the product when it expires, incurs the loss. Accurate planning, forecasting, and adherence to schedules are important to expiration planning because products must make it through the entire chain from the supplier and finally to the customer before the expiration date. If any party in the chain does not adhere to the schedule, at least one party incurs a loss.

When you set the appropriate processing options, JD Edwards World manufacturing planning systems:

- Deduct expired quantities of items from the on-hand values
- Send a warning message that is recorded in the MPS/MRP/DRP Message table (F3411)
- Adjust the time series to reflect the expired product's effect

There are several methods you can use to assign lot number to items. You can:

- Have the system assign lot numbers
- Assign your own lot numbers
- Assign supplier lot numbers

Each time you create a lot, the system adds a record to the Lot Master table (F4108).

9.1.1 Creating Lots

You can create lots automatically when you:

- Create purchase order receipts
- Complete work orders
- Adjust inventory

You can create lots manually:

- On the Lot Master Revisions form
- During work order entry

The actual grade and potency of a lot is defined in the Lot Master table (F4108). You also use the Lot Master Revisions program to specify a reason code for a grade or potency change, and, through the processing options, protect a grade or potency from update.

Lot master information also includes the lot's status and expiration date. You can assign up to ten category codes to the lot for reporting purposes. The system stores all information about lots in the Lot Master table (F4108).

9.1.2 Lot Status

A lot's status determines whether it is available to be processed by the system. When a lot is on hold for any reason, the system does not process it unless a processing option to allow processing of held lots is available.

You set up lot status codes to identify reasons that a lot can be put on hold. After you set up the codes, you can assign them to items and lots through item master information, branch/plant information, purchase order receipts, and lot master revisions. You cannot process items out of lots on hold.

You can assign different status codes to a single lot based on the different locations in which the lot resides. Working with status codes involves:

- Setting up lot status codes

- Assigning status codes to different lot locations

You can run Lot Status Update to place expired lots on hold. If you run the program in proof mode, you can produce a report showing all lots that will be put on hold. If you run the program in final mode, you can produce a report showing all lots that have been put on hold. Set up lot status codes in the user defined code list 41/L.

You assign lot statuses when:

- You use the Lot Master Revisions form to enter a new lot. If you do not enter a status at this time, the system uses the lot status from the item's branch information in the Item Branch table (F4102).

- You set up a new location for an item using the Item Branch/Plant Information form.

You assign lot statuses using:

- The lot status code from that lot's record in the Lot Master table (F4108).

- The default status from the Item Branch table (F4102) if no lot status exists.

You can assign lot statuses to different lot locations using the Location Lot Status Change window from the Lot Master Revisions program. The system assigns statuses when you create a lot through transfer from another location. The system uses the status code of the From location. You can assign status codes to locations without using lots. Whether the system processes items out of locations on hold depends on how you set the processing options.

Use the following tables to determine a lot's status for newly created Lot Master records and Item Location records.

Table	Description
Lot Master (F4108)	If you enter a lot status on the Lot Master Revisions form, the system uses that lot status.
	If you do not enter a lot status, the system uses the default lot status from the Item Branch table (F4102).
Item Location (F41021)	If you enter a lot status on the Lot Master Revisions form, the system uses that lot status.
	If you are moving a lot from another location:
	▪ The system uses the default lot status from the From location.
	▪ If a lot number exists, the system uses the lot status from the Lot Master record.
	▪ If no lot number exists, the system uses the default lot status from the Item Branch table (F4102).

See Also:

- Defining System Constants in the *JD Edwards World Inventory Management Guide* for information about allowing different types of items in the same lot.

10

Enter Lot Information

This chapter contains these topics:

When you enter lot information for an item, you specify whether a lot number is mandatory, how the system assigns the number, and so forth. When you enter information for a lot, you specify the type of item that is contained in the lot, the expiration date for the lot, and so on.

10.1 Entering Lot Information

You can group items and monitor them through your inventory system by assigning them to lots. To work with lots, you must define:

- Lot information for items

- Information for lots

10.2 Entering Lot Information for Items

Navigation

From Inventory Management (G41), choose Inventory Master/Transactions

From Inventory Master/Transactions (G4111), choose Item Master Information

When you enter master information or branch/plant information for an item, you can specify:

- Whether the item requires a lot number at the time of receipt

- Whether the system commits the item's inventory based on lot numbers

- The method by which lot numbers are assigned to the item

- The number of days that the item can remain in inventory before expiring

To enter lot information for items

On Item Master Information

Figure 10–1   Item Master Information screen
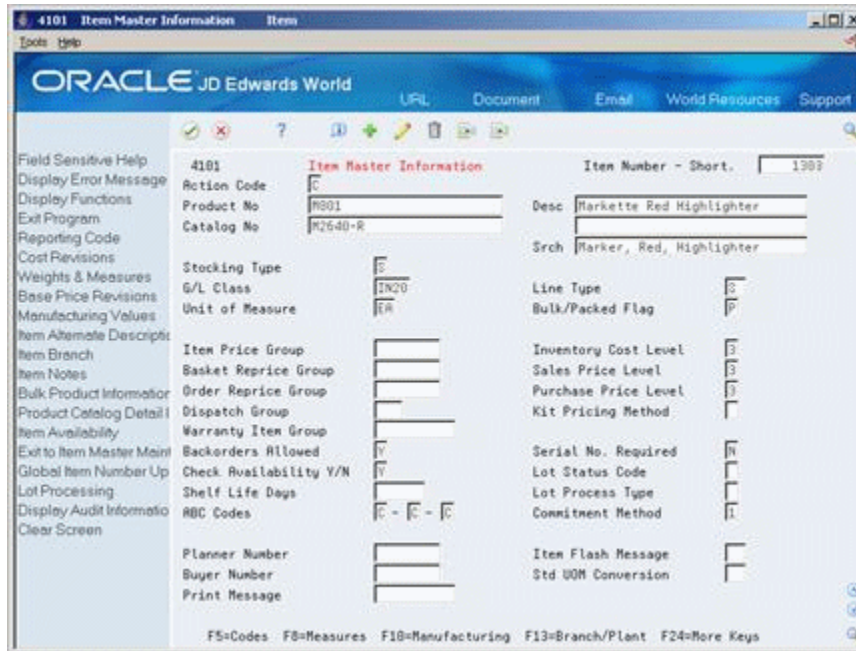
Complete the following fields:

- Lot Status Code

- Lot Process Type

- Commitment Method

- Shelf Life Days

- Serial No. Required

Field	Explanation
Lot Status Code	Indicates the status of the lot, such as if the lot is approved and available for usage (blank lot status) or is held. The system stores the lot status at both the lot master level (F4108) and the item location level (F41021). This means that a lot can be available at the lot level (lot master), while a specific location where this lot is stored can be put on hold (item location). The system checks the lot status at the item location level for availability, not at the lot master level. The lot status in the Item Branch table (F4102) is for default purposes only. The system places the lot status in the lot master when you create a new lot without specifying the lot status. The system uses the lot status from the lot master in the item location when you create new item location records for the lot.
	Form-specific information
	The default value for the lots to which you assign this item.

Field	Explanation
Lot Process Type	A code that indicates whether lot or serial number is assigned. Lot and serial number processes use the Lot Master table (F4108).
	Valid codes are:
	0 – Lot assignment is optional. You can manually assign numbers. Quantity can be greater than one (default).
	1 – Lot assignment is required. The system assigns numbers using the system date in YYMMDD format. Quantity can be greater than one.
	2 – Lot assignment is required. The system assigns numbers in ascending order using Next Numbers. Quantity can be greater than one.
	3 – Lot assignment is required. You must manually assign numbers. Quantity can be greater than one.
	4 – Serial number assignment is optional except during shipment confirmation. Quantity must not exceed one.
	5 – Serial number assignment is required. The system assigns numbers using the system date in YYMMDD format. Quantity must not exceed one.
	6 – Serial number assignment is required. The system assigns numbers in ascending order using Next Numbers. Quantity must not exceed one.
	7 – Serial number assignment is required. You must manually assign numbers. Quantity must not exceed one.
	Form-specific information
	Use codes 4 through 7 for advanced serial number processing. In Purchase Management, you add serial numbers using the Lot field on Purchase Order Detail. Each item must have a unique serial number.
	For items requiring serial numbers as well as lot assignments, use the Lot Process Type field in conjunction with the Serial No Required field. Codes 3 through 5 for the Serial No Required field indicate the setup requirements necessary for these items.
Commitment Method	A code that indicates the method that the system uses to commit lot items from inventory. Valid codes are:
	1. The normal commitment method for inventory (default). The system commits inventory from the primary location and then from secondary locations. The system commits inventory from the locations with the most inventory before committing inventory from locations with the least. The system commits backorders to the primary location.
	2. The inventory commitment method by lot number. The system commits inventory by lot number, starting with the lowest lot number and committing orders to available lots.
	3. The inventory commitment method by lot expiration date. The system commits inventory from the locations with the earliest expiration date first. The system considers only locations with expiration dates greater than or equal to the sales order or parts list requested date.
Shelf Life Days	The number of days that an item can remain in inventory before it expires. The system adds this number to the date that the item is received to determine the expiration date for the item. If you do not enter a value here, you must enter an expiration date each time you receive the lot item.

Field	Explanation
Serial No. Required	A code that indicates whether you must attach a serial number to this item at the time of receipt or sale for basic serial number processing, or if memo lot information is required for advanced serial number processing.
	You can use basic serial number processing for informational purposes only. For example, you can add a serial number for an item, and review the number later.
	For basic serial number processing, valid values are:
	Y – Yes, the system requires a serial number for all transactions pertaining to this item in related inventory, sales, and purchase order programs
	N – No, the system does not require a serial number
	The system does not use this information if you use advanced serial number processing. Advanced serial number processing allows you to track an item through purchasing and sales based on a serial number. To specify serial number requirements, you must use the Lot Process Type field on Item Master Information.
	Values 3 through 5 indicate whether lot assignment is required for items with serial numbers. You can require assignment of up to three lot numbers, including Supplier Lot, Memo Lot 1, and Memo Lot 2. To specify lots for items with serial numbers, you must use the following values:
	3 – Supplier lot number required (purchasing only)
	4 – Supplier lot number required (purchasing only), and Memo Lot 1 required
	5 – Supplier lot number required (purchasing only), Memo Lot 1 required, and Memo Lot 2 required

10.3 Entering Information for Lots

After you assign a new lot number to an item, the system creates a lot. You can enter information for the new lot on Lot Master Revisions.

You might create a lot for items that you expect to receive in the future. You can create a lot manually by entering the lot number and specifying lot information on Lot Master Revisions.

Lot information can include the expiration date, grade and potency values, supplier information, and so forth. You can also assign up to ten category codes to each lot for reporting purposes.

The system maintains separate lot information for each type of item in a lot. For example, if Lot 1 contains Item A and Item B, you can enter separate lot information for each item. A lot can contain multiple items only if you set up system constants to allow more than one type of item in a lot.

Also, you can set up system constants to process a lot that contains only one item, yet those quantities are located in multiple warehouses. For example, Lot 234 consists of one item, bicycle tires. In addition, Warehouse A represents the bulk warehouse, where the majority of the tires are stored. However, Warehouses B and C receive partial quantities of the same item so that Warehouse A has adequate space. When you receive the tires at Warehouses B and C, you can assign them to Lot 234 and track them through the unique lot number.

Complete the following tasks:

- Create a lot

- Enter lot control information

- Enter availability information

- Enter supplier information

Figure 10–2   Lot Master Revisions screen
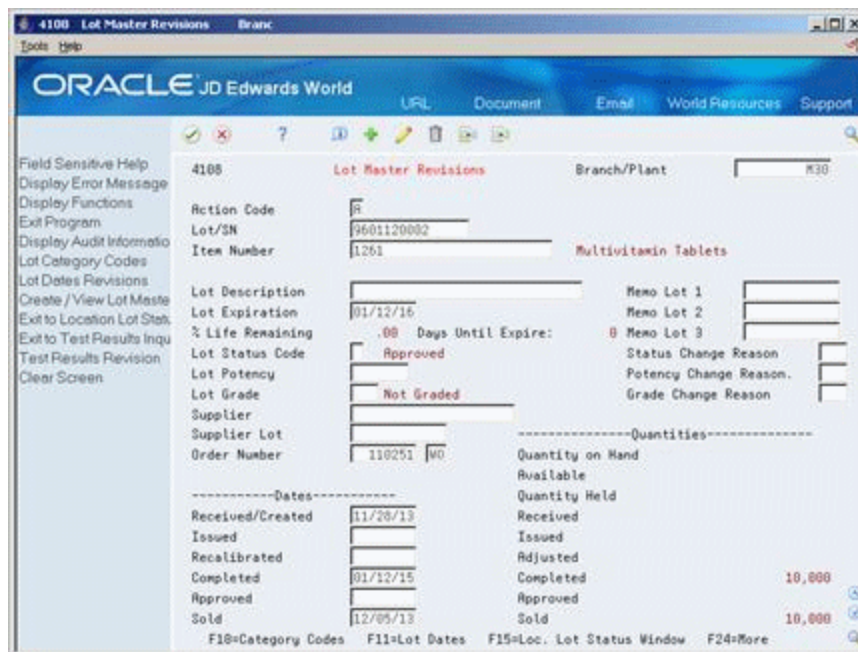
What You Should Know About

Topic	Description
Assigning new lot numbers to items	You can assign new lot numbers to items when you receive purchase order receipts, adjust inventory, and complete work orders. You can also assign new lot numbers for items on Item/Location Information.
Assigning grades or potencies to lots	If you do not specify a grade or potency for items that require this information, the system uses the standard grade or potency from Item Master Information or Item Branch Information.
Item/Lot Ledger	You can track changes to lot status, grade, and potency on the Item/Lot Ledger form.

See Also:

- Working with Item Locations in the *JD Edwards World Inventory Management Guide*for information about adding new lots to item locations,

- Entering Item Grade and Potency Information in the *JD Edwards World Inventory Management Guide* for information about item grades and potencies,

- Locating On-Hand Quantity Information in the *JD Edwards World Inventory Management Guide* for information about viewing the Item/Lot Ledger,

- Defining System Constants in the *JD Edwards World Inventory Management Guide*for information about allowing duplicate lots.

To create a lot

Navigation
From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

Complete the following fields:

- Branch/Plant

- Lot/SN

- Item Number

- Lot Expiration

Lot Dates and Quantities appears, where you can enter availability information.

Field	Explanation
Lot/Serial Number	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.
	Form-specific information
	If a lot number has leading zeros, you must type them as part of the lot number.
Date - Lot Expiration	The date that this lot of inventory will expire. In the Sales Order Management, Manufacturing, and Warehouse Management systems, this date is used in conjunction with the inventory commitment method (see data item CMGL). The system will commit the inventory using the oldest lot first, based on the requested date of the sales or work order. During the commitment process, inventory in the lot is considered good through the expiration date.
	Form-specific information
	Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, table LD).
	When you change this date, the system updates the record in the Item Ledger file (F4111) for auditing purposes.

To enter lot control information

Navigation
From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

Complete the following fields:

- Lot Description

- Lot Status Code

- Lot Potency

- Lot Grade

- Status Change Reason

- Potency Change Reason

- Grade Change Reason

Field	Explanation
Lot Description	You can use this field to further describe a specific lot of inventory within a stocking location.
Lot Status Code	Indicates the status of the lot, such as if the lot is approved and available for usage (blank lot status) or is held. The system stores the lot status at both the lot master level (F4108) and the item location level (F41021). This means that a lot can be available at the lot level (lot master), while a specific location where this lot is stored can be put on hold (item location). The system checks the lot status at the item location level for availability, not at the lot master level. The lot status in the Item Branch table (F4102) is for default purposes only. The system places the lot status in the lot master when you create a new lot without specifying the lot status. The system uses the lot status from the lot master in the item location when you create new item location records for the lot. *Form-specific information* The default for this field comes from the lot status code (including a blank value) that you assign to the item on Item Master Information or Item Branch/Plant Information. This code serves as the lot status default when you create a new item location for the lot.
Lot Potency	A code that indicates the potency of the lot, which is expressed as a percentage of active or useful material (for example, the percentage of alcohol in a solution). The actual potency of a lot is defined in the Lot Master table (F4108).
Lot Grade	This field contains the grade of a lot expressed as an alphanumeric code. The grade is used to indicate the quality of the lot. For example: A1 – Premium grade A2 – Secondary grade The grade for a lot is stored in Lot Master table (F4108).
Status Change Reason	A code (system 42, type RC) that indicates the reason for a change in the status of a lot, such as goods that are damaged in shipment or goods that are placed in quarantine.

Field	Explanation
Potency Change Reason	A code (system 42, type RC) that indicates the reason for a potency change to a lot. For example, you might change the lot potency because the actual potency of the items was lower than expected or because the potency was affected by evaporation.
Grade Change Reason	A code (system 42, type RC) that indicates the reason for a grade change to a lot. For example, you might change the grade because either the actual grade was lower than expected or the lot was downgraded because of aging.

To enter supplier information

Navigation
From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

Complete the following fields:

- Supplier
- Supplier Lot
- Order Number

Field	Explanation
Primary / Last Supplier Number	The address book number of the preferred provider of this item. You can enter the number for the supplier or you can have the system enter it each time that you receive the item from a supplier. You specify whether the system enters the supplier using processing options for Enter Receipts.
Supplier Lot Number	*The supplier's lot number for the item.*
Document (Order No, Invoice, etc.)	A number identifying the original document. This can be an invoice number, work order number, sales order number, journal entry number, and so on. Form-specific information The purchase order number for the lot item. The system enters the purchase order number when you enter a receipt for the item in Purchase Order Management.

Processing Options

See Section 35.5, "Lot Master Revisions (P4108)."

11

Work with Lot Availability

This chapter contains these topics:

You can view the availability of items in a lot, as well as the activity dates, item quantities, and hold statuses that pertain to the lot. Activity dates and item quantities reflect receipts, issues, sales, and so forth for items in a lot.

11.1 Working with Lot Availability

This section contains the following:

- Viewing Lot Availability
- Working with Lot Quantities
- Working with Lot Activity Dates
- Working with Lot Statuses

11.2 Viewing Lot Availability

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Availability

You can view availability for:

- All items in a lot
- All lots that contain the item you specify

You can choose to display only those items or lots for which there are on-hand balances.

To view lot availability

On Lot Availability

Figure 11–1   Lot Availability screen

1. Complete the following fields for the item or lot that to view:

   ■ Branch/Plant

   ■ History (Y/N)

   ■ Grade (from)

   ■ Grade (thru)

   ■ Potency (From)

   ■ Potency (Thru)

   ■ Lot/SN

   ■ Item Number

2. Review the following fields:

   ■ Status (Lot Status Code)

   ■ Reason (Status Change Reason)

   ■ Expires (Expiration Date)

   ■ Quantity on Hand/Held

   ■ Available

3. Enter 3 (Lot Master) in the Option field to access the Lot Information form.

4. Review the following fields:

■ Lot Description

■ Lot Expiration Date

■ Lot Status Code

■ Lot Potency

■ Lot Grade

Field	Explanation
History (Y/N)	A code that determines whether to display information for all locations and lots or only for those with on-hand balances. Valid codes are: N – Display only locations and lots with on-hand balances Y – Display all locations and lots
Grade	A code (system 40, type LG) that indicates the minimum grade that is acceptable for an item. The system displays a warning message if you try to purchase or issue items with grades that do not meet the minimum grade acceptable. The system does not allow you to sell items with grades that do not meet the minimum acceptable level.
Thru Grade	A code (system 40, type LG) that indicates the maximum grade that is acceptable for an item. The system displays a warning message if you try to purchase or issue items with grades that exceed the maximum grade acceptable. The system does not allow you to sell items with grades that exceed the maximum grade acceptable.
Potency	A number that indicates the minimum potency, or percentage of active ingredients, acceptable for an item. The system displays a warning message if you try to purchase or issue items that do not meet the minimum acceptable potency. The system does not allow you to sell items that do not meet the minimum acceptable potency. *Form-specific information* This is the minimum potency acceptable for items in this lot.
Thru Potency	A number that indicates the maximum potency, or percentage of active ingredients, that is acceptable for an item. The system displays a warning message if you try to purchase or issue items that have a potency that exceeds the maximum potency acceptable. The system does not allow you to sell items that have a potency that exceeds the maximum potency acceptable. *Form-specific information* This is the maximum potency acceptable for items in this lot.
Hand / Held	The number of units that are physically in stock. The quantity on-hand displays in the primary unit of measure. *Form-specific information* The number of items in stock or on hold. If the item is on hold, the system highlights the field.
Available	The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.

What You Should Know About

Topic	Description
Viewing the same item or lot multiple times	If the same item or lot appears more than once, each item or lot exists in a different location.

See Also:

- Locating Detailed Quantity Information in the *JD Edwards World Inventory Management Guide* for information on how the system calculates item availability,

- Locating Summary Quantity Information in the *JD Edwards World Inventory Management Guide* for information on viewing detailed item availability by location and lot.

Processing Options

See Section 35.6, "Lot Availability (P41280)."

11.3 Working with Lot Quantities

You can view the on-hand quantity, the available quantity, and the quantity held for each lot. You can also view up to six other quantity types, which you set up on user defined code table 40/LQ. These quantity types might reflect the quantity of items:

- Received

- Issued

- Adjusted

- Completed

- Approved

- Sold

You set up user defined code table 40/LQ to indicate for which document types the system tracks lot quantities. You must associate each document type with one of the quantity type categories that appear on Lot Master Revisions.

For example, you specify the Received category for the document type OP (purchase orders). Then, each time you receive items on a purchase order, the system records the quantity to the Received category for the lot.

Complete the following tasks:

- Reviewing lot quantities

- Setting up the system to track lot quantities

To review lot quantities

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

Figure 11–2   Lot Master Revisions screen

1. To view quantities for a particular lot, complete the following fields:

    ■   Branch/Plant

    ■   Lot/SN

    ■   Item Number

2. Review the following fields:

    ■   Quantity on Hand

    ■   Available

    ■   Quantity Held

    ■   Quantities Received

    ■   Quantities Issued

    ■   Quantities Adjusted

    ■   Quantities Completed

    ■   Quantities Approved

    ■   Quantities Sold

    Note:

    The Quantities fields described below all represent different quantity
    categories. The specific document types that update each category are
    defined in the UDC table (40/LQ). These user defined quantities are
    updated when data is written to the Item Ledger file (F4111).

Field	Explanation
Received	This field represents quantity category 1. *Form-specific information* The quantity of items received in this lot.
Issued	This field represents quantity category 2. *Form-specific information* The quantity of items issued from this lot.
Adjusted	This field represents quantity category 3. *Form-specific information* The quantity of items adjusted to this lot.
Completed	This field represents quantity category 4. *Form-specific information* The quantity of items completed and assigned to this lot.
Approved	This field represents quantity category 5. *Form-specific information* The quantity of items approved in this lot.
Sold	This field represents quantity category 6. *Form-specific information* The quantity of items sold from this lot.

To set up the system to track lot quantities

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Quantities

On Lot Quantities

Figure 11–3   Lot Quantities screen

1. Complete the following fields for each document type:

    ■   02 Character Code

    ■   Description

2. Assign one of the following categories to each document type by entering the number in parentheses in the Description field:

■   Received (1)

■   Issued (2)

■   Adjusted (3)

■   Completed (4)

■   Approved (5)

■   Sold (6)

Note: If you do not specify a grade or potency for items that require this information, the system uses the standard grade or potency from Item Master Information or Item Branch Information.

11.4 Working with Lot Activity Dates

You can view up to six activity dates for a lot. You determine the activity dates that display by setting up user defined code list 40/LD. These activity dates might reflect the last time that an item was:

■   Received or Created

■   Issued

■   Recalibrated

■   Completed

- Approved

- Sold

You set up user defined code table 40/LQ to indicate for which document types the system tracks lot activity dates. You must associate each document type with one of the date categories above.

For example, you specify the Sold category for the document type SO (sales orders). Then, each time you confirm shipments for a sales order, the system records the date to the Sold category for the lot.

You can also enter lot activity dates manually instead of having the system track them for you.

Complete the following tasks:

- Change activity dates for a single lot

- Change activity dates for multiple lots

- Set up the system to track lot dates

To change activity dates for a single lot

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

Figure 11–4   Lot Master Revisions screen
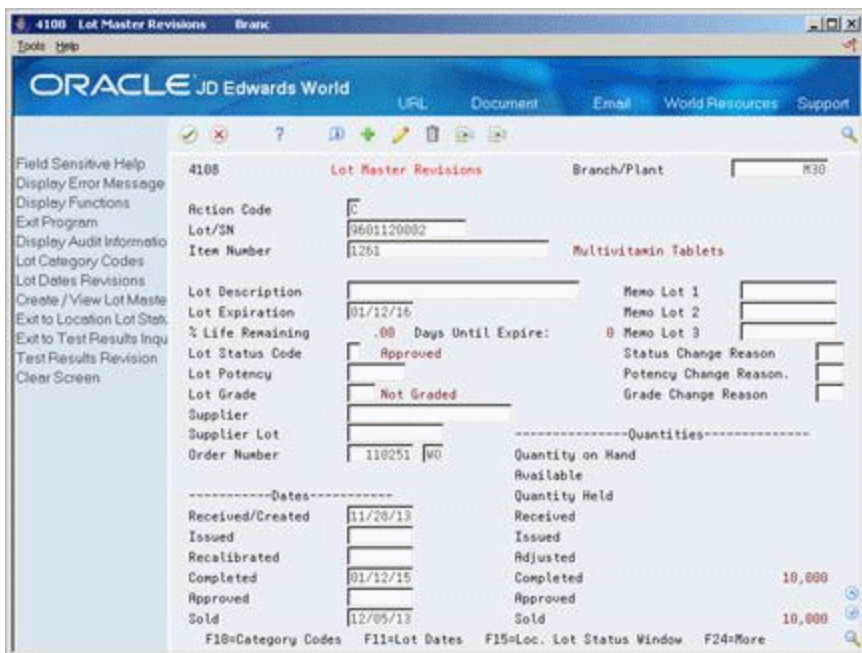
1. To view dates for a specific lot, complete the following fields:

- Branch/Plant

- Lot/SN

■ Item Number

2. Change the following dates for the appropriate lots, if necessary:

■ Date Received/Created

■ Date Issued

■ Date Recalibrated

■ Date Completed

■ Date Approved

■ Date Sold

> **Note:** The dates described below all represent different date categories. The specific document types that update each category are defined in the UDC table (40/LD). Although you can change this date, the system automatically updates this field based on the setup in the UDC table.

Field	Explanation
Received/Created	This field represents date category 1.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, receipts).
	Form-specific information
	The last date that items were created or received in the lot.
Issued	This field represents date category 2.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, issues to work orders).
	Form-specific information
	The last date that items from the lot were issued to work orders.
Recalibrated	This field represents date category 3.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, recalibration dates).
	Form-specific information
	The last date that inventory adjustments were made to this lot.
Completed	This field represents date category 4.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, inventory completions).
	Form-specific information
	The last date that inventory completions were made to this lot.

Field	Explanation
Approved	This field represents date category 5.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, lot status approvals).
	Form-specific information
	The date that the lot was approved.
Sold	This field represents date category 6.
	The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, sales).
	Form-specific information
	The last date that items were sold from this lot.

To change activity dates for multiple lots

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Speed Lot Update

On Speed Lot Update

Figure 11–5   Speed Lot Update screen
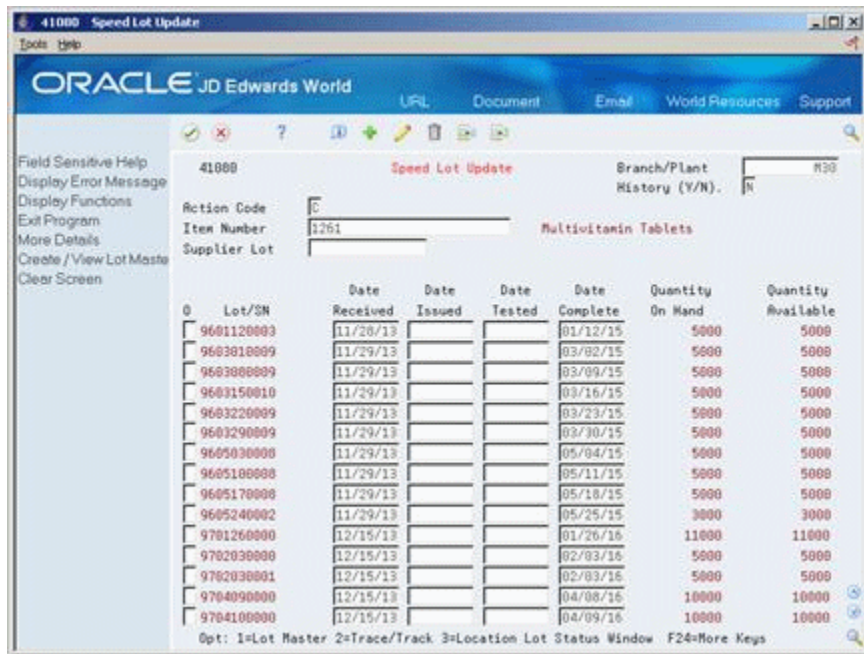
1. Complete the following fields:

   - Branch/Plant

   - History (Y/N)

   - Item Number

   - Supplier Lot

2. Change the following dates for the appropriate lots, if necessary:

- Date Received

- Date Issued

- Date Tested (or recalibrated)

- Date Complete

To set up the system to track lot dates

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Dates

On Lot Dates

Figure 11–6   Lot Dates screen

1. Complete the following fields for each document type:

- 02 Character Code

- Description-2

2. Assign one of the following categories to each document type by entering the number for the date category in the Description field:

- Date Received/Created (1)

- Date Issued (2)

- Date Recalibrated (3)

- Date Completed (4)

- Date Approved (5)

- Date Sold (6)

11.5 Working with Lot Statuses

You set up lot status codes to identify the reasons that a lot is on hold. After you set up the codes, you can assign them to items and lots on Item Master Information, Branch/Plant Information, Lot Master Revisions, Enter Receipts, and so forth. You cannot process items from lots on hold.

You can assign different status codes to a single lot based on the different locations in which the lot resides. Complete the following tasks:

■   Set up lot status codes

■   Assign status codes to different lots

You can run the Lot Status Update DREAM Writer program to place expired lots on hold. You can preview a list of all lots that will be placed on hold by running the program in proof mode.

Figure 11–7   Hold Expired Lots report


```
41082                           JD Edwards World              Page No. . . . . . .        3
                                Hold Expired Lots             Date . . . . . . . .   9/10/18


                                                             Branch/Plant . . . .           30
                                                             Lot Expiration Date.  08/30/18
                                                             Mode - Processing. .  Proof
                                                             Lot Status Code. . .  Q


     Item Number                 Description                 Location          Lot Number  Date Expires
-------------------------  ------------------------------  ---------------------  ---------------  -----------

  V001                     Natureway High Energy Vitamins    .    .            00000004        05/16/18
  V001                     Natureway High Energy Vitamins    .    .            00000005        08/26/18
  12829                    Parselenium                                         9309150009      08/14/18
  V001                     Natureway High Energy Vitamins    .    .            9310140000      08/15/18
  V001                     Natureway High Energy Vitamins    .    .            9310140001      08/16/18
  V001                     Natureway High Energy Vitamins    .    .            9310140002      08/26/18
  V001                     Natureway High Energy Vitamins    .    .            9310140003      08/26/18
  I0006-I                  Spray Dry Powder 1200 Grams                         9503120000      02/19/18
  12845                    Buffer, inert                                       9601050000      01/04/18
  12845                    Buffer, inert                                       9601110000      01/10/18
```

This graphic illustrates the hold expired lots report.

****

You can run the Batch Effective Lot Status Update DREAM Writer program to update the lot statuses of mature lots. The system updates lots with an effective date less than or equal to the date entered.

Figure 11–8   Release Mature Lots report

```
41083                                Company 00000                           Page No. .          1

                                    Release Mature Lots                      Date          1/17/13




                                                        Branch/Plant . . . .          M30

                                                        New Lot Status Code.

                                                        Mode - Processing. .  Proof



       Item              Description              Lot          Location     St Effectiv Onhand Quantity
------------------------ ---------------------- --------------- ------------------- -- -------- --------------------
MFG014              MFG014                  00611036                        12/06/12
MFG001              MFG001 (Lot)            201206210001                    07/01/12                10
MFG001              MFG001 (Lot)            201206210003                    06/01/12                 3
MFG006              MFG006                  201209180004                    11/05/12
MFG006              MFG006                  201209180007                    09/18/12
MFG006              MFG006                  201209190002                    09/18/12
MFG006              MFG006                  201209250001                    09/27/12
MFG008              MFG008                  201211010001                    10/01/12                 1
MFG008              MFG008                  201211010002                    12/01/12                 1
MFG008              MFG008                  201211010003                    11/08/12
MFG013              MFG013                  201211250001                    12/07/12
```

This graphic illustrates the release mature lots report.

****

To set up lot status codes

Navigation
From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Status Codes

On Lot Status Codes

Figure 11–9   Lot Status Codes screen
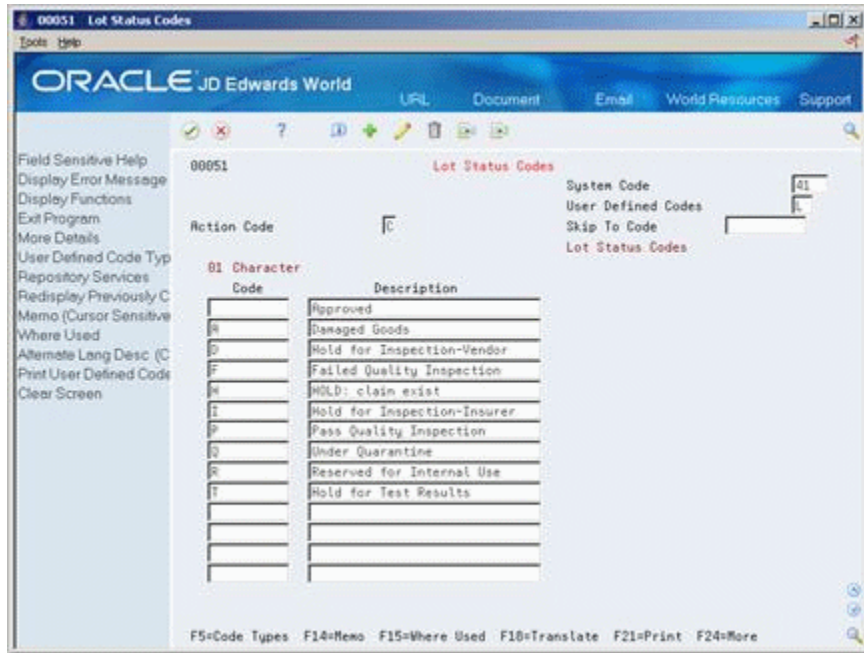
This graphic illustrates the lot status codes screen.

****

Complete the following fields for each status code:

- 01 Character Code
- Description

To assign status codes to different lots

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Master Revisions

On Lot Master Revisions

1. Locate the appropriate lot and item.

   - Location Lot Status Change appears.

Figure 11–10 Location Lot Status Change window
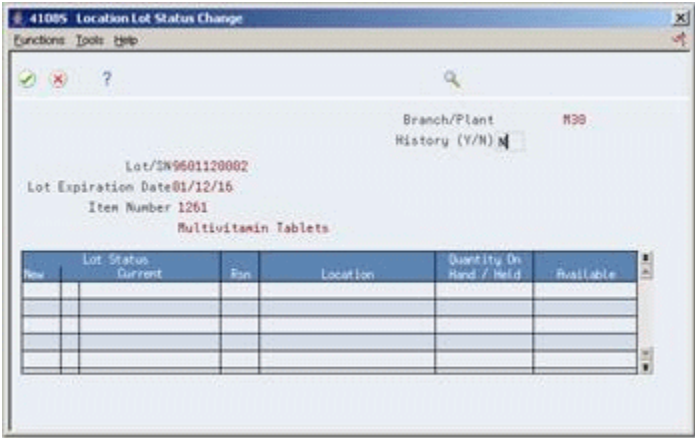
This graphic illustrates the location lot status change window.

****

2. On Location Lot Status Change, complete the following fields for each location for which you want to change the status code:

   ■ New (New Lot Status)

   ■ Reason (Reason for Changing Lot Status)

What You Should Know About

Topic	Description
Assigning status codes to locations	You can assign status codes to locations as well as lots. The system verifies that a lot is on hold before verifying that the location is on hold.
	The system might process items out of locations on hold depending on the program in which you are working and the way that processing options are set.

12

View Lot Transactions

This chapter contains these topics:

12.1 Viewing Lot Transactions

You might want to view the transactions that have affected a lot, such as:

- The receipts, inventory issues, and so on, that were generated as a result of assigning items to the lot
- The inventory issues, work order completions, sales, and so on, that were generated as a result of removing items from the lot

Use Lot Tracing to view the transactions in which items were assigned to the lot. If the lot contains kit or assembled items, you can identify the parts that were used to assemble items in the lot and the lots from which the parts came.

Figure 12–1   A Lot Containing Assembled Items
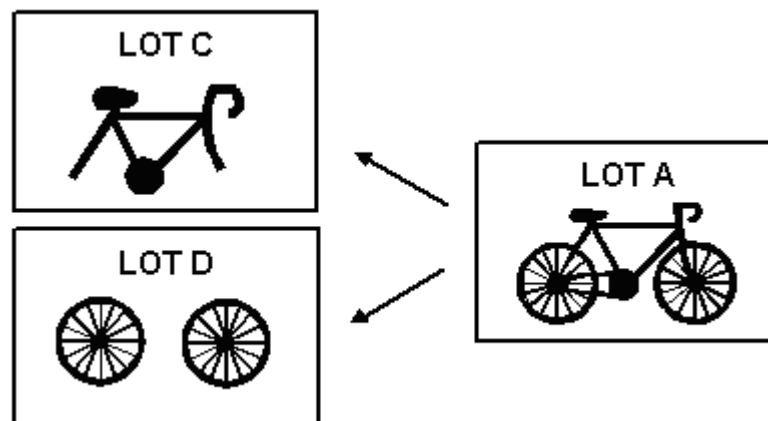
You use lot tracking to view the transactions in which items were removed from the lot. You can identify items that have been assembled using parts from the lot, and the lots to which the assembled items were assigned.

Figure 12–2   Lot Tracking
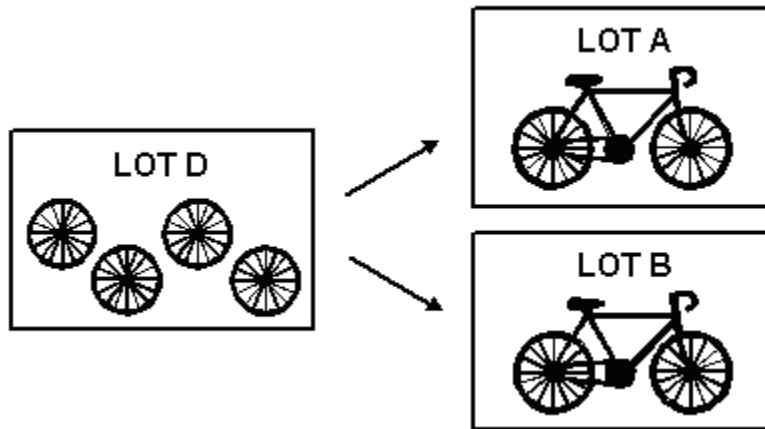
You provide information about how you want the system to trace and track lots. For example, you specify the document types that the system monitors to trace and track lots. You also specify whether you want to view transactions for assembled items or non-assembled items by specifying a trace/track mode.

The system traces and tracks a lot by linking corresponding transactions, such as a receipt, an issue, a completion, and a sales order. If the link is incomplete, the system stops tracing and tracking. For example, if you do not include the completion document type in inclusion rules, the system stops tracking at the completion transaction.

12.2 *Printing Trace and Track Reports*

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Trace/Track Print

You can print a report that provides trace and track information, such as the level by which the system traces or tracks lots.

Figure 12–3   Lot Tracking Report

```
41505                                        JD Edwards World                           Page     -        2
                                             Lot Tracing Report                         Date     -   8/08/18


Parent Lot
  Lot Number           Item Number           Branch     Level  Trans Qty   Date   Trans Description  Order No  Ty   Customer/Vendor
------------      -----------------------   ----------  ----- ---------- --------  ----------------- --------  --   ------------------
13363            TELEPHONE                         10  Lot Grade     Lot Potency
  51013827         TELEPHONE UNIT                  10  1            10- 03/08/18 Inventory Issue      13363 IM
                                                      Lot Grade     Lot Potency
  51013827         TELEPHONE UNIT                  10 .2           100  03/08/18 Inventory Receipt        34 OV  Edwards, J.D. & Co
                                                      Lot Grade     Lot Potency
  51013828         TELEPHONE CORD                  10  1            10- 03/08/18 Inventory Issue      13363 IM
                                                      Lot Grade     Lot Potency
  51013828         TELEPHONE CORD                  10 .2           100  03/08/18 Inventory Receipt        34 OV  Edwards, J.D. & Co
                                                      Lot Grade     Lot Potency
  51013829         TELEPHONE RECEIVER              10  1            10- 03/08/18 Inventory Issue      13363 IM
                                                      Lot Grade     Lot Potency
  51013829         TELEPHONE RECEIVER              10 .2           100  03/08/18 Inventory Receipt        34 OV  Edwards, J.D. & Co
                                                      Lot Grade     Lot Potency
```

```
41505                                        JD Edwards World                           Page     -        2
                                             Lot Tracking Report                        Date     -   8/08/18


Lot Number
  Parent Lot           Item Number           Branch     Level  Trans Qty   Date   Trans Description  Order No  Ty   Customer/Vendor
------------      -----------------------   ----------  ----- ---------- --------  ----------------- --------  --   ------------------
13363            TELEPHONE                         10  Lot Grade     Lot Potency
  13363            TELEPHONE                       10  1            10  03/08/18 Inventory Complet    13363 IC
                                                      Lot Grade     Lot Potency
```

12.3 Reviewing Trace and Track Information

Navigation

From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Trace/Track Inquiry

You can review trace and track information online. You determine whether the report displays tracing or tracking information by using processing options for the Trace/Track Inquiry program.

To review trace and track lot items

On Lot Tracing or Lot Tracking

Figure 12–4 Lot Tracing (down) screen
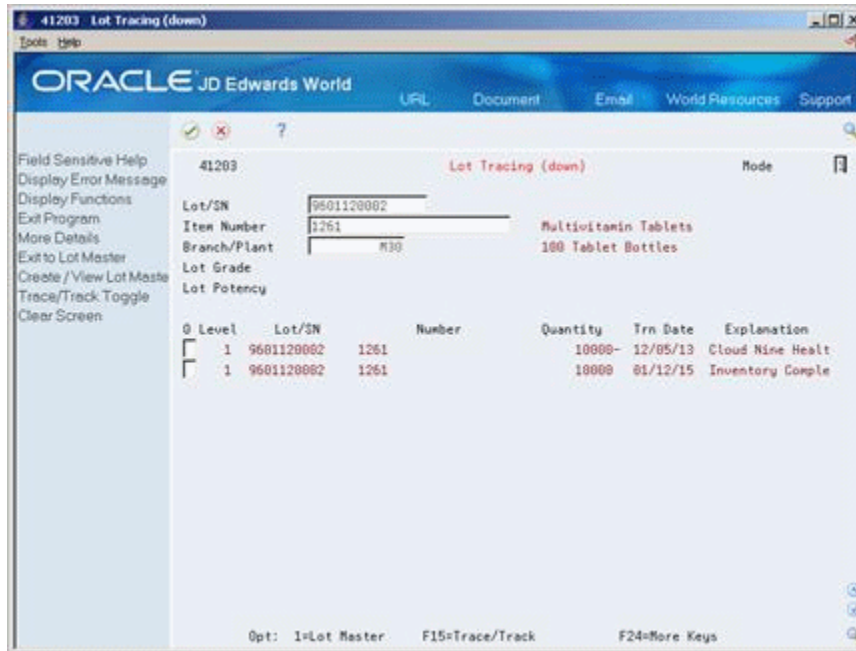
1. Complete the following fields for the lot that you want to trace or track:

    ■   Mode

    ■   Lot/SN

        Note:

        Depending on how you have set the Allow Duplicate Lots field in
        system constants, you might have to enter an item number and
        branch/plant.

2. Review the following fields, as necessary:

    ■   Level

    ■   Serial Number

    ■   Item Number

    ■   Quantity

    ■   Transaction Date

    ■   Explanation (Transaction Explanation)

3. Access the detail area.

Figure 12–5   Lot Tracing (down) screen (Detail area)
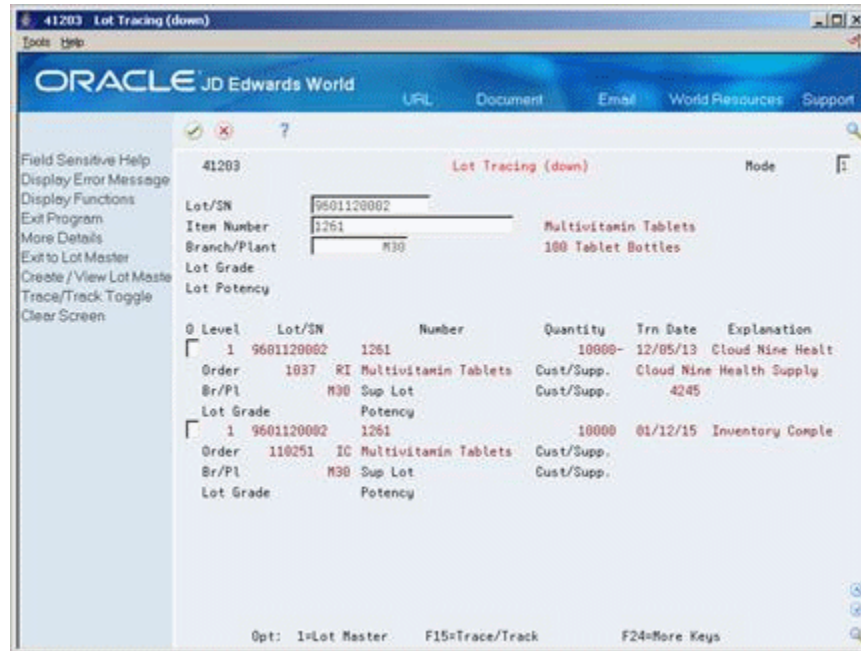
4. Review the following fields, as necessary:

    ■   Order

    ■   Lot Grade

    ■   Lot Potency

    ■   Sup Lot (Supplier Lot)

    ■   Customer/Supplier

Field	Explanation
Mode	A code that indicates how you want the system to display lot trace and track information. Valid codes are:
	1 – Single level trace/track
	2 – No intermediate levels (displays only top or bottom levels)
	3 – Multi-level trace/track
	4 – Multi-level indented trace/track
Level of Indention	A number indicating the level of a child in the relationship to its parent in a hierarchy.
Date - Order/Transaction	The date that an order was entered into the system. This date determines which effective level that the system uses for inventory pricing.
Explanation - Transaction	This text identifies the reason that a transaction occurred.

What You Should Know About

Topic	Description
Reviewing detailed lot information	Access the Lot Information window by pressing F1 in the Lot/SN field on Lot Tracing or Lot Tracking. This window displays the item that belongs to the lot, the branch/plant to which the lot is assigned, the lot expiration date, the lot status, and so on.
	See Section 11.1, "Working with Lot Availability" for more information.

Processing Options

See Section 35.7, "Lot Tracing and Tracking (P41203)."

12.4 Setting up Trace and Track Inclusion Rules

Before you use lot tracing and lot tracking, you must set up trace and track inclusion rules. These rules let you specify the document types that the system monitors to trace and track lots. You must specify whether each document type applies to lot tracing, lot tracking, or both.

For example, if you use the Purchase Management system, you would specify that document type OP (purchase orders) applies to lot tracing. Then, each time you receive a lot item, the receipt transaction displays on Lot Tracing.

To set up trace and track inclusion rules

Navigation

From any JD Edwards World menu, enter UDC on the command line

On General User Defined Codes

Figure 12–6   General User Defined Codes screen
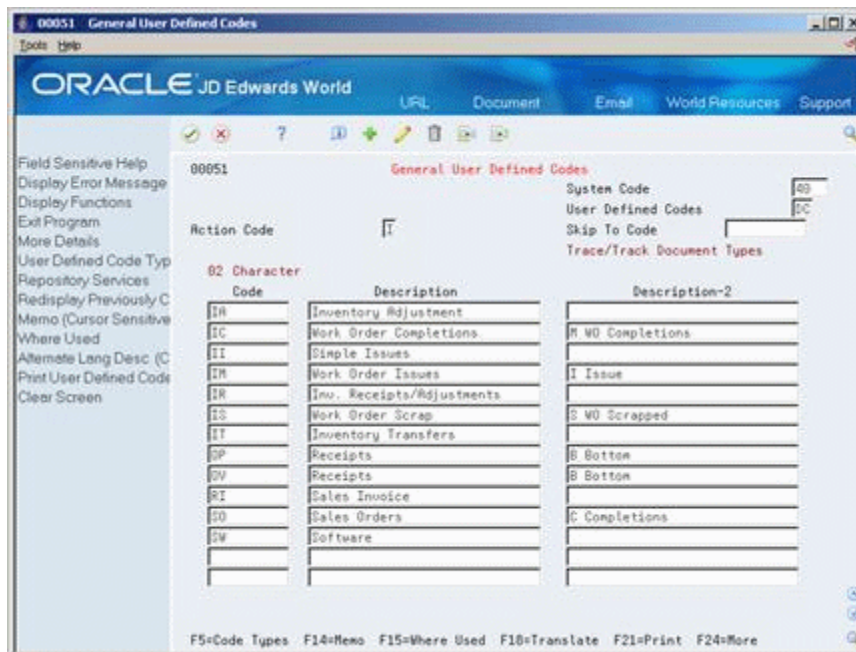
1. Access user defined code table 40/DC.

2. Complete the following fields for each document type:

   ■ 02 Character Code

   ■ Description

3. Assign one of the following values to each document type in the Description-2 field:

   ■ B (for bottom level, or tracing transactions)

   ■ C (for completion level, or tracking transactions)

   ■ Blank (for intermediate level transactions, which apply to both tracing and tracking)

   ■ I (for issue transactions)

   ■ M (for work order completions)

What You Should Know About

Topic	Description
Issue transactions	You must include the issues document type (IM) in inclusion rules if you perform multi-level tracing and tracking. You must also assign the issues document type a value of I (issue transactions).
Receipt, adjustment, and sales transactions	Receipt and adjustment transactions cannot have a value of C (completion) on Trace/Track Inclusion rules. Sales transactions cannot have a value of B (bottom level). A sale is the last transaction that can occur for lot tracking.
How the system traces and tracks lot transactions	The system traces and tracks a lot by associating together corresponding transactions, such as a receipt, an issue, a completion, and a sales order. If the association is terminated, the system stops tracing and tracking. For example, if you do not include the completion document type in inclusion rules, the system stops tracking at the completion transaction.

13

Reclassify Lots

This chapter contains the topic:

-

13.1 Reclassifying Lots

Navigation

From Inventory Management (G41), choose Inventory Master/Transactions

From Inventory Master/Transactions (G4111), choose Reclassifications

You can reclassify an item and any associated lot when the item's properties change. When you reclassify, you create new item numbers and combine or split existing lots within locations.

You also may be able to create new lots if you have set the Inventory Lot Creation (Y/N) field in the branch/plant constants to allow you to do so.

For example, property changes that occur over time in technical grade sulphuric acid can result in a less potent grade of acid. You can create a new lot from this acid by specifying a different potency and grade.

In a similar example, if you blend several lots of sulphuric acid together and dilute them with water, you can create a new lot with a new potency and grade.

You can change a lot and any of the associated items as follows

- Change the item number, location, lot, and lot status

- Create a new lot from an existing lot

- Combine several lots into a single lot

- Split one lot into several lots

- Combine several lots and create several new lots

13.1.1 Example: Types of Reclassifications

The following graphic illustrates how you can combine, blend, and split lots.

Figure 13–1 Combining, Blending, and Splitting Lots
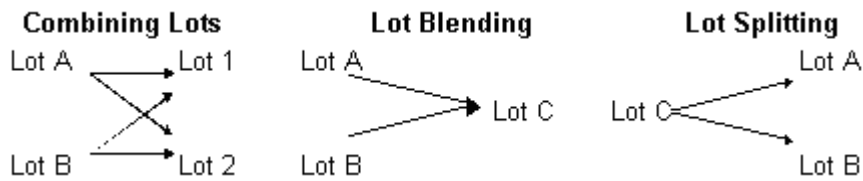
After you reclassify an item and lot, the system adjusts inventory balances and performs related tracking and accounting tasks.

The system updates the following tables with item and lot change information:

- Item Ledger (F4111)
- Account Ledger (F0911)
- Item Location (F41021)
- Warehouse Location (F4602) - (only if you are using the Advanced Warehouse Management system with the Inventory Management system)

You can view detailed or summarized journal entries for these transactions on the Journal Entries and the Item Ledger Inquiry forms.

Before You Begin

- Verify that you have set up the general ledger accounts in the Account Master table (F0901)
- Verify that you have set up the automatic accounting instructions (AAIs) for distribution
- Review uncommitted quantity information for the item and related lot that you are reclassifying on Item Availability

> **Caution:**
>
> Use the Item/Lot Change Transactions program only for reclassifying items and lots. Using any of these programs to reclassify items or lots can adversely affect information throughout the Sales Order Management and Procurement systems.

What You Should Know About

Topic	Description
Reviewing lot information	You can review item and location information for a lot by accessing Lot Information. This form also displays the lot expiration date, the lot status, and so on.
	See Section 11.2, "Viewing Lot Availability" for more information.
Correcting errors	You can correct a reclassification made in error by entering a reversing entry. Because the system stores records of each reclassification for accounting purposes, you cannot delete the record. The system reverses the item in the same document number and batch as the original reclassification.

Topic	Description
Recording document numbers	After you enter a reclassification, the system displays the document type, batch number, and document number for the transaction. Record the document number for locating the transaction.
Grouping reclassifications	After you enter several reclassifications, you can group them together for processing.
	After you group transactions, the system assigns the same number to each transaction in the group and processes all of the From and To lines with the same transaction number.
	Depending on how the processing options are set, the system validates that the From and To quantities balance.
Reclassifying uncommitted quantities of items	You can reclassify only uncommitted quantities of items and lots.
	See Item and Quantity Information in the *JD Edwards World Inventory Management Guide* for information about how to determine uncommitted quantities for an item.
Assigning items with multiple lot or serial numbers to a location	When you reclassify inventory, you might be able to assign items with multiple lot or serial numbers to a location
	See Assigning an Item to a Branch/Plant in the *JD Edwards World Inventory Management Guide* for more information.
Reclassifying bulk inventory	You cannot use the Item/Lot Change Transactions program to reclassify bulk inventory. Instead, use the Bulk Stock Movement program to reclassify bulk inventory.

To reclassify items and lots

On Reclassifications

Figure 13–2   Reclassifications screen

1. To enter reclassification information, complete the following fields

    ■   From Branch/Plant

- To Branch/Plant (BU for Account Duplication)

- Trans. Date (Date - Order Transaction)

- Document Number (Document)

- Document Type

- Explanation

- G/L Date

2. Access the detail area.

3. Complete the following fields for each branch/plant in which the item is stored:

- F/T (From/To)

- Item Number

- Quantity

- UM

- Location

- Reason Code

- Unit Cost

- Extended Cost

- Trans. Line (Transaction Line Number)

4. To create a new location and record for the lot, complete the following fields:

- Lot

- Grade

- Potency

- Lot Desc

- Lot Expires

- Lot Status

The system processes the transaction and displays a document number, document type, and the batch number for the transaction

Field	Explanation
To Branch/Plant	The destination business unit that you want to copy accounts to.
	Form-specific information
	The destination branch/plant that you want to move inventory to.
From/To	Indicates whether this line in the transaction is a From line or a To line. This field allows you to combine multiple existing products/locations into a single product/location, for example, three From lines and one To line. You can also split one existing product/location into several new products/locations, for example, one From line and two To lines. The information in a From transaction line is always existing item location information.

Field	Explanation
Trans. Line	The transaction line number keeps the different From and To lines for one transaction (for example, combining multiple lots into one or splitting one lot into several new ones) together by giving them the same transaction line number.
Prev Voucher:	The number of the last voucher that was entered.

Processing Options

See Section 35.8, "Item Reclassifications (P4116)."

14

Review Availability and Shortages

This chapter contains these topics:

14.1 Reviewing Availability and Shortages

Shop floor management includes the coordination of material handling, material availability, setup and tooling availability, and operator skills so that a job can be done in the most cost-effective manner. You can use availability and shortage tracking programs to determine what inventory you have and what inventory you need.

You should check the availability of the parts needed to complete a work order before you create the work order, or when the work order has been processed and is ready for release to the shop floor. You can check availability against a work order after the work order has been created. You can also check availability against a bill of material for a rate schedule, or before creating a work order for an item. You can choose to print shortages for specified components or print all shortages as well.

What You Should Know About

Topic	Description
Entering shortages	You can choose Order Item Shortage to enter a quantity short for an item associated with the work order. You can also specify how to fill the shortage. However, you should use the Shortage Maintenance program to maintain quantity shortages.

14.2 Defining Availability Calculations for a Branch

Navigation

From Inventory Management (G41), enter 29

From Inventory System Setup (G4141), choose Branch/Plant Constants

The system uses the quantities defined for each branch in the Inventory Management system to calculate availability. Therefore, you indicate the quantities you want the system to add or subtract from the on-hand balance when the system calculates

availability at your branch. If you leave any field blank, the system excludes that quantity from the calculation.

To define availability calculation for a branch/plant

On Branch/Plant Constants

1. Choose Item Availability.

Figure 14–1   Item Availability Definition screen
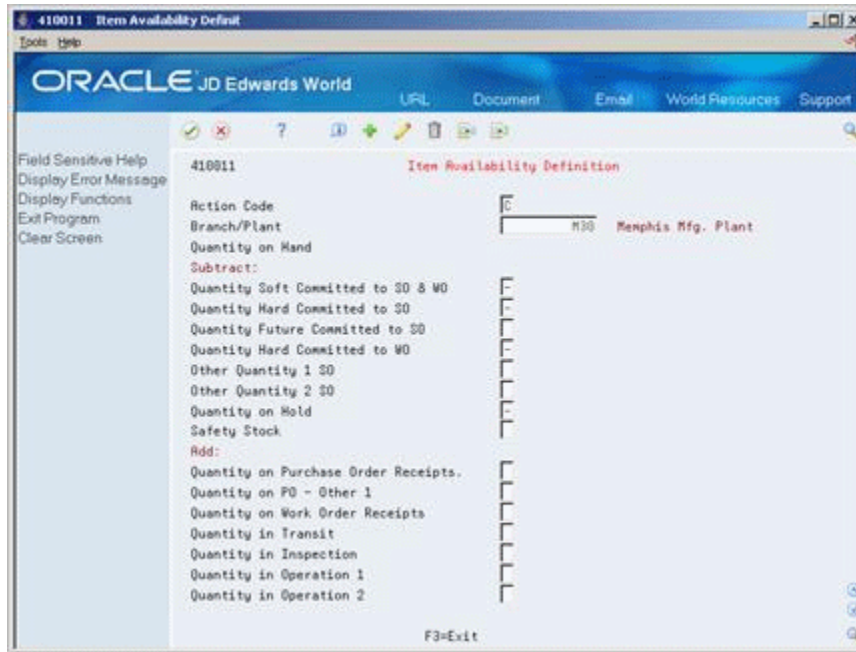
2. On Item Availability Definition, review the following default information:

- Branch/Plant

3. To subtract a quantity, complete the following optional fields:

- Quantity Soft Committed to SO & WO

- Quantity Hard Committed to SO

- Quantity Future Committed to SO

- Quantity Hard Committed to WO

- Other Quantity 1 SO

- Other Quantity 2 SO

- Quantity on Hold

- Safety Stock

4. To add a quantity, complete the following optional fields:

- Quantity on Purchase Order Receipts

- Quantity on PO - Other 1

- Quantity on Work Order Receipts

- Quantity in Transit

- Quantity in Inspection
- Quantity in Operation 1
- Quantity in Operation 2

14.3 Reviewing Availability

You should check the availability of the items required to make a certain quantity of a parent item before you create a work order or rate schedule. You can check the availability of a part or the availability of a parts list.

Reviewing availability consists of:

- Reviewing part availability
- Reviewing parts list availability

To review part availability

Navigation
From Product Data Management (G31), choose Daily Order Preparation - Discrete (G3111)

From Daily Order Preparation - Discrete (G3111), choose Part Availability

On Part Availability

Figure 14–2   Part Availability screen

1. Complete the following fields:
   - Branch/Plant
   - Parent Item
2. Complete the following optional field:
   - Requested Quantity

Field	Explanation
Requested Quantity	The number of parent items you want to process. The system calculates lower-level values in quantity per the number of parent items requested. For example, if 3 components are needed for a parent item, and the requested quantity is 10, the system plans for 30 components.
Required	The number of units to which the system applies the transaction. *Form-specific information* For Shop Floor Control: The quantity of the component required.
Available	The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.

Processing Options

See Section 35.9, "Part/Ingredient Availability (P30205)."

To review parts list availability

Navigation

From Product Data Management (G31), choose Daily Order Preparation - Discrete (G3111)

From Daily Order Preparation - Discrete (G3111), choose Parts List Inquiry

You can review the availability of items by parts list required to complete the quantity of the parent item indicated on the work order.

If you created a soft commitment for the item, the quantities displayed indicate the item's availability at all locations. If you created a hard commitment for the item, only quantities from the hard-committed locations display. You can also display the quantities of each item that have hard and soft commitments to work orders and sales orders.

On Parts List Inquiry

Figure 14–3 Parts List Inquiry screen
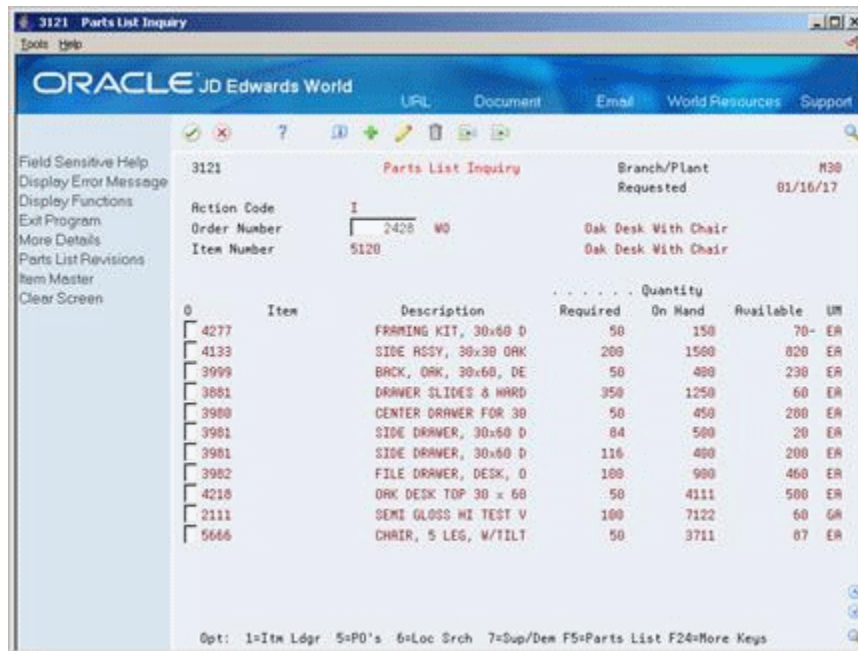
1. Complete the following field:
   - Order Number
2. Access the detail area.

Figure 14–4 Parts List Inquiry screen (Detail area)
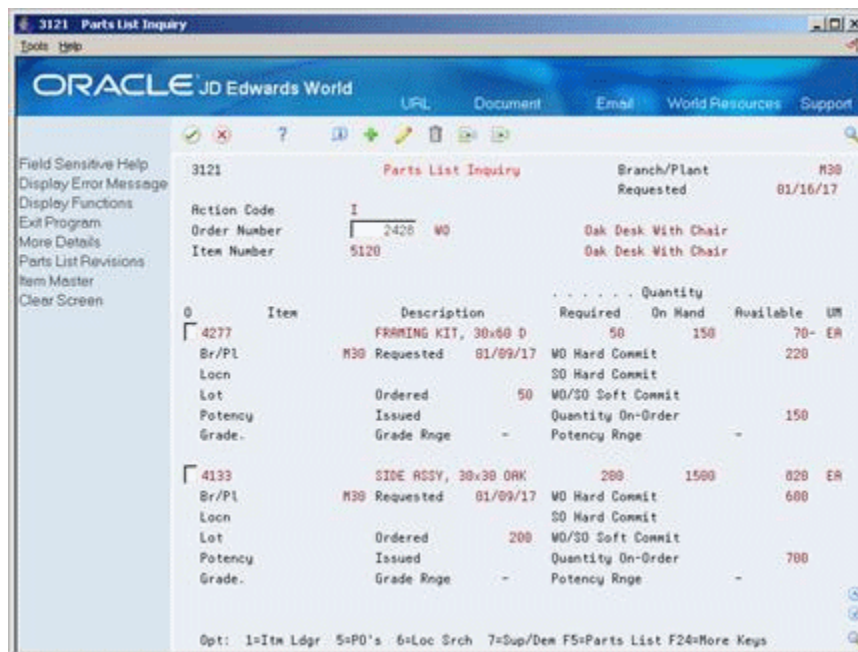
Field	Explanation
Required	The total quantity requested.

Field	Explanation
WO Hard Commit	The number of units hard committed to work orders in the primary unit of measure.
SO Hard Commit	The number of units committed to a specific location and lot.
WO/SO Soft Commit	The number of units that are soft-committed to sales orders or work orders in the primary units of measure.
Quantity On-Order	The number of units specified on the purchase order, in primary units of measure.

Processing Options

See Section 35.10, "Parts List Inquiry (P3121)."

14.4 Managing Shortage Information

Shortages occur when you do not have enough of the required materials to complete the quantity of the parent item requested on a work order. When you check the availability of items against a bill of material or a work order, the system displays short items with a negative available quantity.

You track shortage information for:

- Purchased parts that you obtain from a single source

- Purchased parts that are difficult to obtain

- Parts that have a long leadtime

- Parts whose absence will stop the production line

- Parts that are expensive to purchase or manufacture

- Parts that require close monitoring

Managing shortage information includes the following tasks:

- Locating shortages

- Changing shortage information

To locate shortages

Navigation

From Product Data Management (G31), choose Daily Order Preparation - Discrete (G3111)

**From Daily Order Preparation - Discrete (G3111), choose Shortage Workbench**

You can locate shortage information for an item that is associated with one or more work orders using the shortage workbench. Use the workbench to determine the amount of a shortage and how the shortage will be filled. You can locate item shortages by:

- Branch/plant and item number

- Branch/plant, item number, order number, and order type

- Order number and order type

- Order type

On Shortage Workbench

Figure 14–5   Shortage Workbench screen
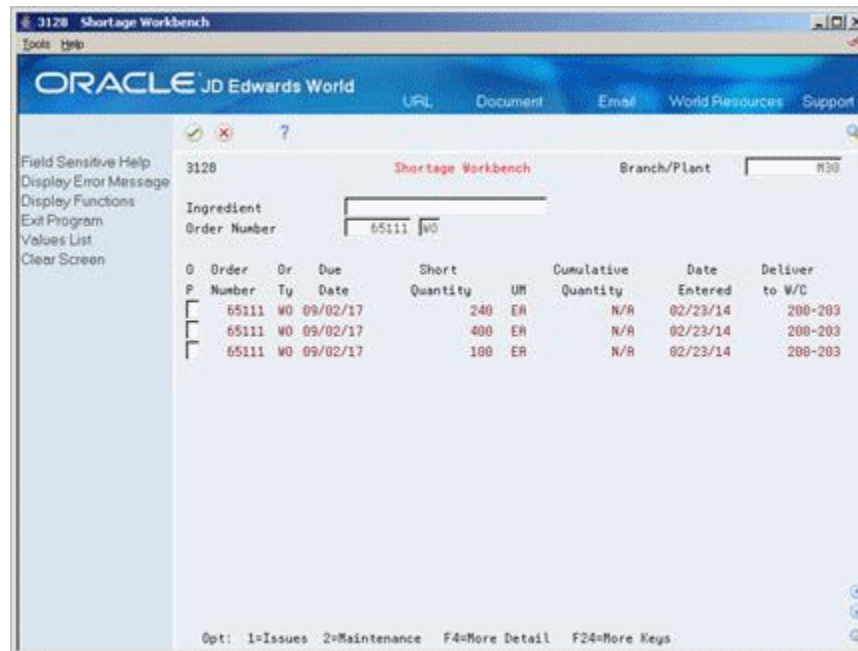
Complete the following fields:

■   Branch/Plant

■   Item Number

Processing Options

See Section 35.11, "Item Shortage Workbench (P3128)."

To change shortage information

You can change component shortage information by item, work order, branch/plant, and work order type, or any combination of these. You can also review information that indicates how shortages will be filled, as well as change this information.

There are several forms you can use to manage shortage information. You specify in the processing options which versions of the shortage programs that the system uses and the default order type that the system displays.

On Shortage Maintenance

Figure 14–6   Shortage Maintenance screen
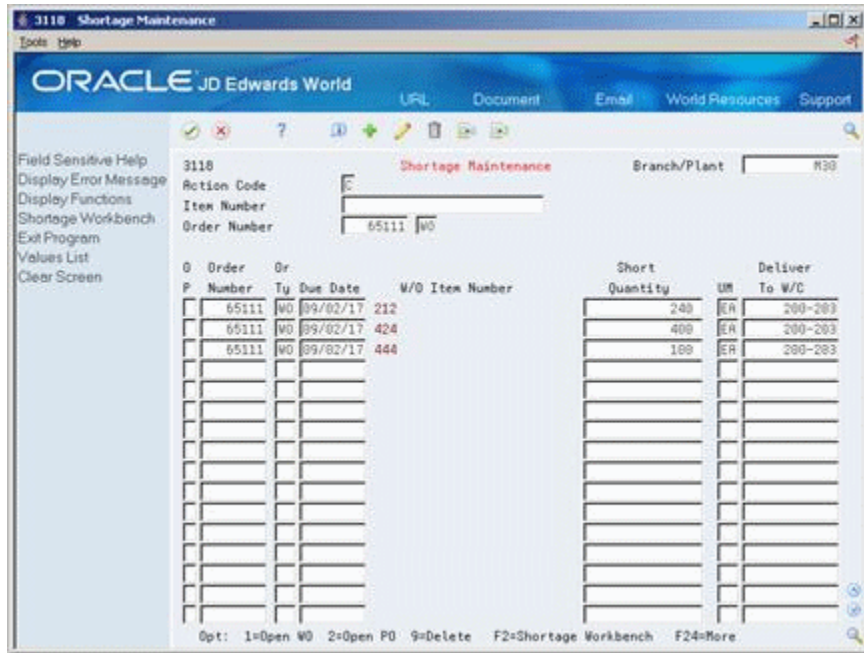
1. Complete the following fields:

   ■ Branch/Plant

   ■ Item Number

   ■ Order Number

2. Review the following default information:

   ■ Due Date

   ■ Short Quantity

   ■ Deliver to Work Center

3. Access the detail area.

Figure 14–7   Shortage Maintenance screen (Detail area)
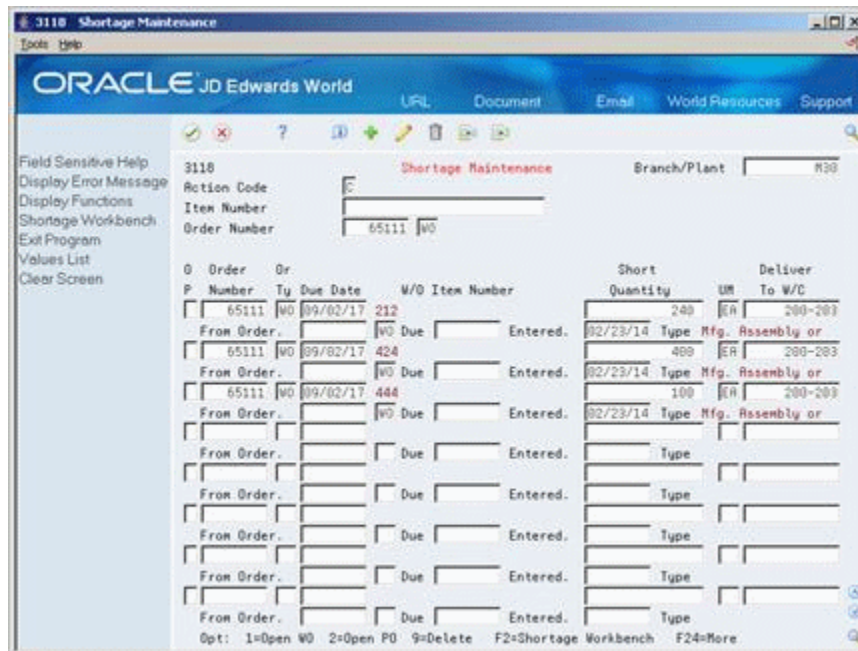
4. Review the following default information:

    ■   From Order

    ■   Due

Field	Explanation
Due	The requested date for a Purchase Order created thru Direct Ship or Transfer Order entry. If you leave this field blank, the system uses today's date, which can be overridden at any time.
	Form-specific information
	The date that the component is needed. If you leave this field blank, the system uses the date in the work order parts list.

Processing Options

See

14.5 Printing Shortages

You can choose to print shortage information using two DREAM Writer programs. You can:

■   Print component shortages

■   Print all shortages

What You Should Know About

Topic	Description
Warehouse Management interface	If you are using Warehouse Management, the system does not include parts that have a status of In Warehouse in the Component Shortages report.

14.5.1 Printing Component Shortages

From the Periodic Functions - Discrete menu (G3121), choose Component Shortages.

The Component Shortages report uses Quantity Available as a starting number for calculating shortages. The report lists the component parts required to complete a work order and indicates their current availability. It includes:

- Quantities available

- Quantities on order

- Quantities required

- Quantities short

Use the processing option to print only parts that are short. If a short part is on more than one order, a shortage prints only when the on-hand quantity plus on order quantity minus the required quantity is negative.

You can also generate this report as part of the shop paperwork when you run Order Processing.

Processing Options
See Section 35.13, "Work Order Component Shortage List (P31418)."

14.5.2 Printing All Shortages

From the Periodic Functions - Discrete menu (G3121), choose All Shortages.

The All Shortages report lists shortage details for items in the Shortage Maintenance Master table (F3118). Processing options control whether the report contains one or two lines of detail information about each short item. You can set your DREAM Writer selections to sort and total the information.

Figure 14–8 Shortage Revisions report

```
3118P                             JD Edwards World                           Page - . . .         2
                                Shortage Revisions Print                     Date - . . . 14/03/18


                                           Order  Or   Due   Deliver To                      Short
Branch/Plant        Item                Description  Number Ty  Date   Branch/Plant Deliver To Desc.  Quantity  UM
------------  ------------------------  -------------------  -------- -- -------  ---------------------------  ------------  --
         NY CJ02                        Chair Arms          157825 WO 16/01/15           NY New York Warehouse      100  EA
Date Entered 17/01/15                       From Order.          WO    Type . Configured Item
                                                                                              ------------
                                   Branch . . . . . . . . . . . . New York Warehouse                 100  EA
         10 4664D                       4664-D              156697 WO 09/01/15           10 Modesto Distributio     100  EA
Date Entered 10/01/15                       From Order.          WO    Type . Mfg. Assembly or Sub-Assembly
                                                                                              ------------
                                   Branch . . . . . . . . . . . . Modesto Distribution Center        100  EA
        CHI 3980                        CENTER DRAWER FOR 30x6 1821 WO 25/05/18      CHI Chicago Warehouse      20  EA
Date Entered 25/05/18                       From Order.          WO    Type . Mfg. Assembly or Sub-Assembly
        CHI 3981                        SIDE DRAWER, 30x60 DES 1821 WO 25/05/18      CHI Chicago Warehouse      80  EA
Date Entered 26/05/18                       From Order.          WO    Type . Mfg. Assembly or Sub-Assembly
        CHI 2111                        SEMI GLOSS HI TEST VAR 1821 WO 25/05/18      CHI Chicago Warehouse      40  EA
Date Entered 25/05/18                       From Order.          WO    Type . Purchased inc. Raw Material
        CHI 5666                        CHAIR, 5 LEG, W/TILT   1142 WO 09/01/18   48-204 Final Assembly/Insp    50
Date Entered 10/01/18                       From Order.          WO    Type . Purchased inc. Raw Material
        CHI 5666                        CHAIR, 5 LEG, W/TILT   1151 WO 16/01/18   WAREHOUSE Warehouse Storage  150
Date Entered 17/01/18                       From Order.          WO    Type . Purchased inc. Raw Material
        CHI 5666                        CHAIR, 5 LEG, W/TILT   1821 WO 25/05/18      CHI Chicago Warehouse      20  EA
Date Entered 27/05/18                       From Order.          WO    Type . Purchased inc. Raw Material
        CHI 123                         HARDWARE KIT           1821 WO 25/05/18   200-103 Screw Machine         40  EA
Date Entered 03/03/15                       From Order.          WO    Type . Purchased inc. Raw Material
                                                                                              ------------
                                   Branch . . . . . . . . . . . . Chicago Warehouse                  160  EA
       YARD AR101278                    Engine Oil Filter    157585 WM 02/04/15      MECH Mechanical             1  EA
Date Entered 18/01/15                       From Order.       157649 WO    Type . Purchased inc. Raw Material
       YARD AR101278                    Engine Oil Filter    157585 WM 02/04/15      YARD Yard                   1  EA
Date Entered 18/01/15                       From Order.          WO    Type . Purchased inc. Raw Material
                                                                                              ------------
                                   Branch . . . . . . . . . . . Yard                                   2  EA
                                                                                              ------------
                                                                                                    362  EA
```

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3118P                                  JD Edwards World                           Page - . . .        2
                                     Shortage Revisions Print                     Date - . . . 14/03/18


                                                     Order  Or   Due    Deliver To                     Short
Branch/Plant        Item              Description    Number Ty   Date   Branch/Plant Deliver To Desc.  Quantity  UM
------------ -------------------- ----------------- -------- -- -------- ------------ -------------------- ------------ --
        NY CJ02                   Chair Arms         157825 WO 16/01/15          NY New York Warehouse      100  EA
Date Entered 17/01/15                    From Order.        WO    Type . Configured Item
                                                                                                     ------------
                                             Branch . . . . . . . . . . . . New York Warehouse          100  EA
        10 4664D                  4664-D             156697 WO 09/01/15          10 Modesto Distributio   100  EA
Date Entered 10/01/15                    From Order.        WO    Type . Mfg. Assembly or Sub-Assembly
                                                                                                     ------------
                                             Branch . . . . . . . . . . . . Modesto Distribution Center   100  EA
       CHI 3980                   CENTER DRAWER FOR 30x6 1821 WO 25/05/18        CHI Chicago Warehouse       20  EA
Date Entered 25/05/18                    From Order.        WO    Type . Mfg. Assembly or Sub-Assembly
       CHI 3981                   SIDE DRAWER, 30x60 DES  1821 WO 25/05/18       CHI Chicago Warehouse       80  EA
Date Entered 26/05/18                    From Order.        WO    Type . Mfg. Assembly or Sub-Assembly
       CHI 2111                   SEMI GLOSS HI TEST VAR  1821 WO 25/05/18       CHI Chicago Warehouse       40  EA
Date Entered 25/05/18                    From Order.        WO    Type . Purchased inc. Raw Material
       CHI 5666                   CHAIR, 5 LEG, W/TILT    1142 WO 09/01/18    48-204 Final Assembly/Insp     50
Date Entered 10/01/18                    From Order.        WO    Type . Purchased inc. Raw Material
       CHI 5666                   CHAIR, 5 LEG, W/TILT    1151 WO 16/01/18  WAREHOUSE Warehouse Storage     150
Date Entered 17/01/18                    From Order.        WO    Type . Purchased inc. Raw Material
       CHI 5666                   CHAIR, 5 LEG, W/TILT    1821 WO 25/05/18       CHI Chicago Warehouse       20  EA
Date Entered 27/05/18                    From Order.        WO    Type . Purchased inc. Raw Material
       CHI 123                    HARDWARE KIT            1821 WO 25/05/18     200-103 Screw Machine         40  EA
Date Entered 03/03/15                    From Order.        WO    Type . Purchased inc. Raw Material
                                                                                                     ------------
                                             Branch . . . . . . . . . . . . Chicago Warehouse            160  EA
      YARD AR101278               Engine Oil Filter    157585 WM 02/04/15       MECH Mechanical            1  EA
Date Entered 18/01/15                    From Order.    157649 WO    Type . Purchased inc. Raw Material
      YARD AR101278               Engine Oil Filter    157585 WM 02/04/15      YARD Yard                   1  EA
Date Entered 18/01/15                    From Order.        WO    Type . Purchased inc. Raw Material
                                                                                                     ------------
                                             Branch . . . . . . . . . . . . Yard                          2  EA
                                                                                                     ------------
                                                                                                       362  EA
```

15

Understand Issue Transactions

Regardless of whether you use work orders or rate schedules for an item you produce, you must send the required materials to the shop floor for production. You must also deduct the quantities that are issued to the shop floor from inventory through an issue transaction. The Shop Floor Control and Manufacturing Accounting systems use issue transactions to determine the actual quantities of materials that are used in the production process, according to the routing instructions for the work order or rate schedule.

This chapter contains these topics:

- Section 15.1, "When Do You Issue Inventory?"
- Section 15.2, "How Do You Issue Inventory?"
- Section 15.3, "From Where is Inventory Issued?"
- Section 15.4, "What Tables Store Data when Issuing Inventory?"
- Section 15.5, "Where in the Process Do You Issue Inventory?"

15.1 When Do You Issue Inventory?

You do not have to generate an issue transactions at the same time inventory is physically moved. The JD Edwards World Shop Floor Control system allows you to choose at what point in the production process you want to generate issue transactions. In other words, you can choose when you want your inventory records to reflect the issue of materials to the work order or rate schedule.

For example, in the case of a short production cycle, you might want to deduct the issued inventory and receive the completed product into inventory at the same time when you report full completions against the work order or rate schedule. For longer processes, you might need to generate issue transactions at various operations within the routing to minimize the discrepancies between materials actually on the shop floor and materials for which the inventory lists as being on the shop floor.

15.2 How Do You Issue Inventory?

You can choose any of the following methods to issue inventory:

Method	Description
Manual issues	The system deducts materials from inventory when you enter the issue transactions on the Issues form.
	See Section 16.3, "Issuing Materials Manually."

Method	Description
Preflushing	The system automatically deducts materials from inventory when you process a work order using the Order Processing program.
	See Section 16.2, "Issuing Materials by Preflushing."
Backflushing	The system deducts materials from inventory when you report items on the work order or rate schedule as complete. This can occur when you report partial completions throughout the production process or when you report full completions at the last routing operation.
	See Section 19.3, "Completing a Work Order through Backflush."
Super Backflushing	The system automatically deducts materials from inventory at operations defined as pay points throughout the routing. Super backflush allows you to backflush materials and labor hours, and to report items as complete at the same time.
	See Section 19.5, "Processing Work Orders through Super Backflush."

All of these methods are available when you use work orders. If you are using rate schedules, backflushing is the only method that JD Edwards World recommends.

The issue transaction forms are similar for work orders and rate schedules. Issue transactions for work orders are conducted on the Issues form. Issue transactions for rate schedules are conducted on the Rate Base Inventory Issues form.

Some issue methods allow you to issue materials without having to display the Issues form. Other methods display the issue transaction for your review before the system records it.

You can perform partial issues by setting up the rate for the week and issuing a backflush daily. For example, if your rate for the week is 10,000, and your daily backflush is 2,000, you can perform a partial issue of 2,000 for five days. On the fifth day, your rate schedule is completed.

The transaction date for issue transactions is the current system date. You can enter a different date. If you issue too much of one item, the system displays an error message. You can either adjust the issue quantity or accept the issue.

Processing options control whether the Operation Sequence and Date Requested fields allow you to enter an issue type code to restrict the items listed for issue.

15.3 From Where is Inventory Issued?

Inventory is issued from the location at which it is committed. You can change the commitment location for an item, so that it will be issued from a different location.

If you are issuing a grade or potency controlled item from a lot, and the lot grade or potency rating isn't within the desired range, the system displays a warning message.

15.4 What Tables Store Data when Issuing Inventory?

The following graphic shows the tables that the system updates when you issue inventory.

Figure 15–1   Tables Updated When Inventory Is Issued
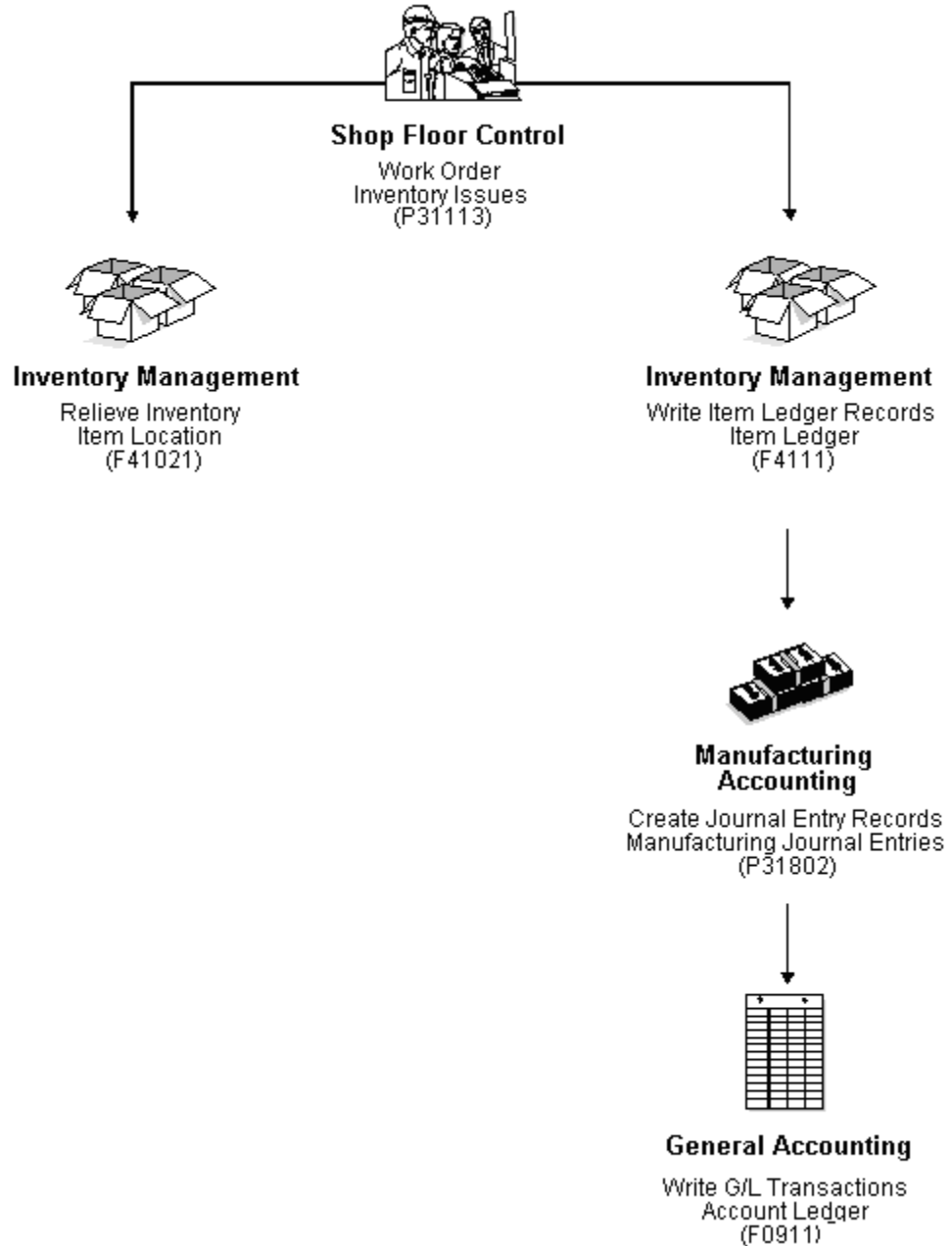
15.5 Where in the Process Do You Issue Inventory?

Figure 15–2   Process Flow
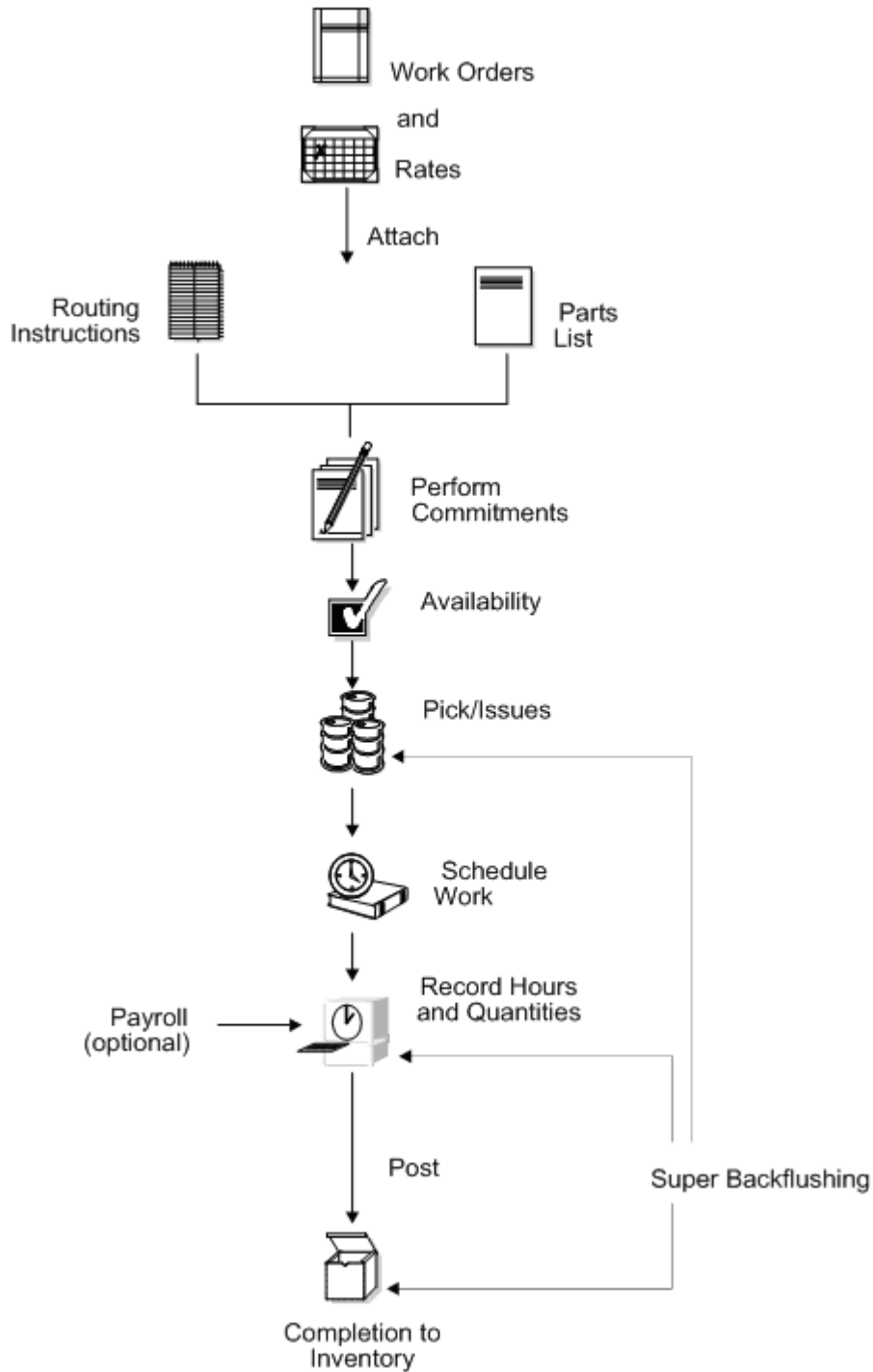
See Also:

- Section 27.1, "Completing Rates"for information on recording completions for rate schedules,

- Setting Up Default Location Information in the *JD Edwards World Inventory Management Guide* for more information on specifying locations for a commitment,

- Section 11.5, "Working with Lot Statuses"for information on issuing material that is lot controlled,

- Section 8.1, "Grade and Potency Control" for information on issuing material that is grade or potency controlled.

16

Issue Materials

This chapter contains these topics:

16.1 Overview

You can issue materials without recording a completion to a work order. You can also record scrapped component quantities and the reason for the scrap.

> **Note:**
>
> If you have repeated items in the bill of material, make sure that the operation sequence numbers for those lines are unique for the bill of material.

What You Should Know About

Topic	Description
Warehouse Management interface	If you are using Warehouse Management and issuing materials to a work order, the system does not issue any part with a status of In Warehouse. You need to update the status to Out of Warehouse by pick confirmation before the system issues the part.
	See *JD Edwards World Advanced Warehouse Management Guide* for information on how to confirm a pick request.

Topic	Description
Blending, filling, and packaging	Work order issues allow you to enter ambient quantities and current temperature and/or density information. The system calculates and stores the standard quantity and weight accordingly.
	When you issue inventory to a blending/filling location the system checks the allowed products matrix for an incompatibility between the allowed product from the blending tank and the ingredients list at the time of issue.
	The system calls Bulk Products for each item issued that is a bulk product.
	When you issue inventory the system allows you to access the Dip Volume Calculator/Meter Readings program to enter readings.
	See *JD Edwards World Bulk Stock Management Guide*.

See Also:

- Chapter 8, "Understand Grade and Potency" for information on issuing material that is grade or potency controlled.

16.2 Issuing Materials by Preflushing

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Order Processing

Preflushing is recording issue transactions for all material required for a work order when you process the work order, using the Order Processing batch program. This includes materials that are not required until the last operation in the routing, which could occur weeks or months in the future. These items are issued at the start date of the work order when you use the Order Processing program, as well.

> **Caution:**
>
> JD Edwards World recommends that you do not use the preflushing method unless your manufacturing cycle time is short enough to ensure that materials are physically moved to the shop floor within the same day that the issue transaction is recorded. If your cycle time is longer than a day, a discrepancy will appear in your inventory records because the materials have been deducted from inventory records, but not physically removed from inventory stock.

Before You Begin

- Set the issue type code on the parts list

What You Should Know About

Topic	Description
Issuing preflush items only	You can set a processing option in the Automatic Batch Issue program to issue only preflush items. If you leave this processing option blank, the system preflushes all items associated with the work order.

16.3 Issuing Materials Manually

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Inventory Issues

You can issue materials manually either from one location or from multiple locations, if you specified item quantities to be used from several locations. You use the Inventory Issues form to issue material associated only with a work order. To issue material associated with a rate schedule, you use the Rate Base Inventory Issues form. The steps for working with both forms are the same.

You can also use the Inventory Issues program to change the commitments that the system recorded. When you change commitments, the system displays an error message if the quantities do not add up to the total quantity required. It also adjusts the available balance for any location in which you changed the quantity committed.

Complete the following tasks to manually issue material:

- Issue material from a single location

- Issue material from multiple locations (optional)

What You Should Know About

Topic	Description
Issuing materials for a parent quantity	Use the Issue Material For field to issue materials for a parent quantity, which indicates how many sets of parts are needed. The Quantity Issued field indicates the quantity of each component that the system deducted from inventory.
Reversing an issue transaction	To reverse an issue transaction, change the item quantity that you want to reverse to a negative number. The system decreases the amount in the Quantity Issued field for the item by the amount of the reversal.
Closing out materials	To close out items that you no longer need, change the item using the Close Out selection. "Closed" appears in the Issues field for any item you close out.
Assigning serial numbers	If you did not assign a serial number to any of the components on your work order at order entry, you can assign them during inventory issues.
Associating components	You can associate components with a specific serialized assembly during inventory issues. If you do not know the assembly number, choose Retrieve Work Order Lot Serial Numbers to view numbers previously assigned to work order assemblies.

See Also:

To issue material from a single location

On Inventory Issues

Figure 16–1   Inventory Issues screen
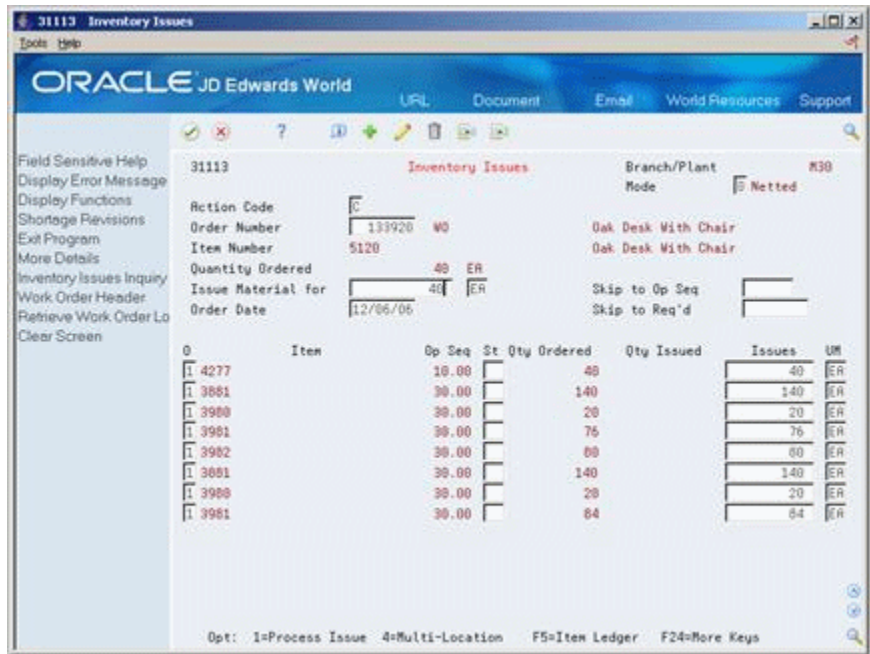
1. Complete the following fields:

   ■   Order Number

   ■   Branch/Plant

2. Complete the following optional fields:

   ■   Status

   ■   Issues

3. Review the following default information:

   ■   Unit of Measure

4. Access the detail area.

Figure 16–2   Inventory Issues screen
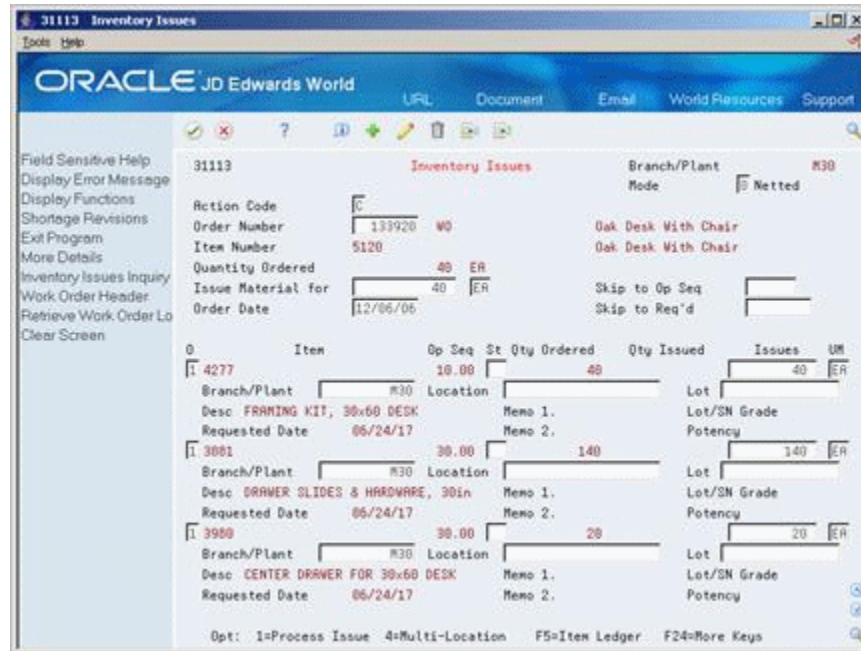
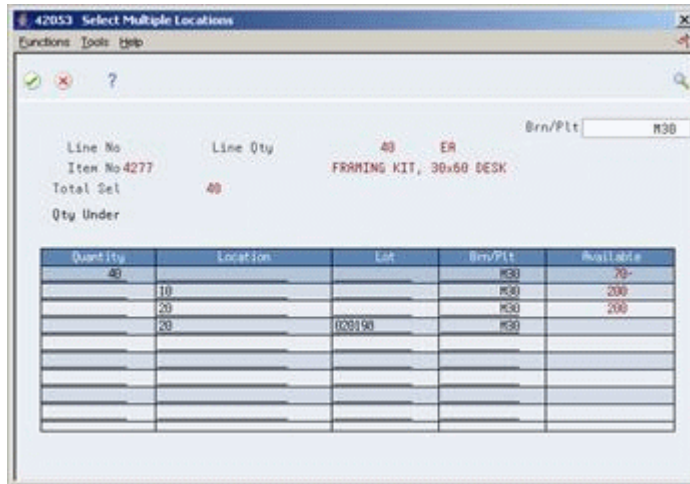5. Review the following default information:

    ■ Location

    ■ LSN

Field	Explanation
UM	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.
	Form-specific information
	If you leave this field blank, the system uses the value from the Parts List table and updates the quantities in the Item Location table in the primary unit of measure.

To issue material from multiple locations

This task is only necessary to issue material from different locations than what is listed on the Inventory Issues form.

On Inventory Issues

1. Complete the following field:

    ■ Order Number

2. Choose Select Multiple Locations.

Figure 16–3   Select Multiple Locations screen

3. On Select Multiple Locations, review the following default information:

   ■   Quantity

   ■   Location

   ■   Lot

   ■   Branch/Plant

Field	Explanation
Available	The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.

Processing Options

See Section 35.14, "Work Order Inventory Issues (P31113)."

16.4 Recording Component Scrap

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Component Scrap

You can use the Component Scrap program to record scrapped quantities of component items in the Item Ledger (The CARDEX) table and the Shop Floor Control Parts List table (F3111). The Item Ledger provides an audit trail of the quantity scrapped and the reason for the scrap transaction.

When you use the Component Scrap program, note the following important information:

■   You cannot scrap components unless they have been issued to a work order.

■   The total quantity scrapped for a component cannot exceed the total quantity issued to the work order.

■   Negative transactions are allowed unless the transaction quantity would cause a negative issue.

■ You can enter scrap transactions in any unit of measure. The scrapped quantity will be converted to the unit of measure of the parts list and rounded to one whole unit of measure when the system updates the Shop Floor Control Parts List table (F3111).

What You Should Know About

Topic	Description
Resources	The system uses the order number information from the Work Order Master table (F4801) and the component information from the Shop Floor Control Parts List table (F3111).

To record component scrap

On Component Scrap

Figure 16–4   Component Scrap screen

1. Complete the following fields:

   ■ Order Number

   ■ Transaction Date

   ■ Quantity To Scrap

2. Access the detail area.

Figure 16–5   Component Scrap screen (Detail area)
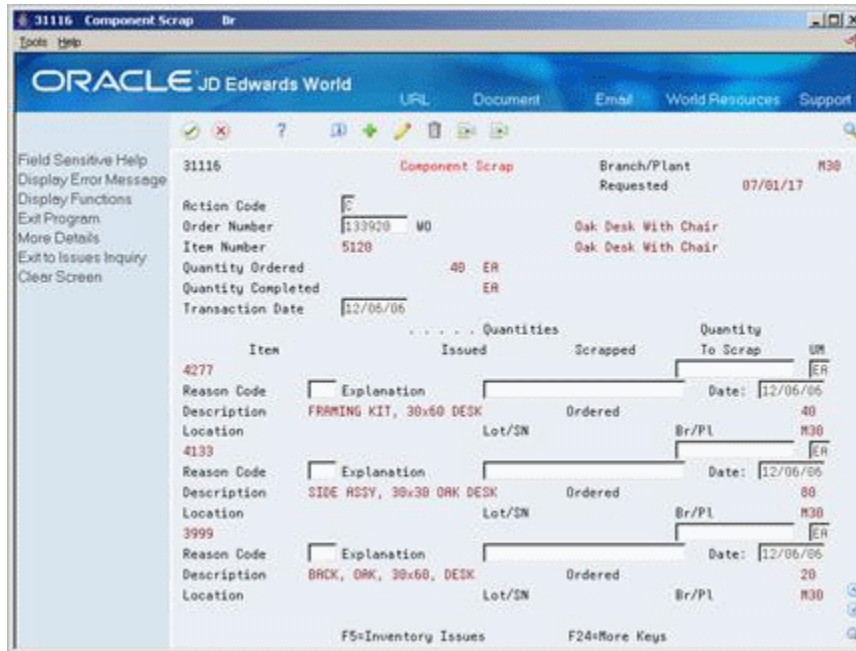
3.   Complete the following optional fields:

   ■   Reason Code

   ■   Explanation

   ■   Date

Field	Explanation
Reason Code	A user defined code (system 31, type RC) that indicates the reason for the quantity scrapped at this operation.
Explanation	This text identifies the reason that a transaction occurred.

Processing Options

See Section 35.15, "Component Scrap Transactions (P31116)."

17

Work with Hours and Quantities

This chapter contains these topics:

17.1 Overview

As you work to produce the items on a work request, you need to record the hours spent on the production and the number of items completed in that time. This allows you to monitor progress and actual costs and compare them against the standard hours and quantities you estimated for the job.

If your estimates are fairly accurate, you can have the system automatically enter the standard values for you at various points in the routing. Or, you can have all of your employees individually enter their time and quantities completed.

The Shop Floor Control system interfaces with the JD Edwards World Payroll system so that you only have to enter an employee's hours and quantities produced once. The single entry saves time and reduces the risk of data entry error, while ensuring that data across your systems is consistent.

The information is recorded in the Payroll system as well as against a work order in the Manufacturing system. The hours and quantities can be applied to a specific work order so you can maintain accurate manufacturing accounting and costing data. You can record hours and quantities per work order or per employee, to accommodate both piece-work and hourly rate employees.

The Shop Floor Control system manages hour and quantity information in the same manner whether you enter it on the Hours and Quantities form or the Payroll Time Entry form. If you want to interface with the Payroll system, you should use the Payroll Time Entry form to enter hours and quantities information.

After you enter hours and quantities, either manually or through payroll time entry, you can review and revise them before you process them to the Manufacturing system for further tracking and cost accounting. You can review the hours and quantities either online or using a report.

What You Should Know About

Topic	Description
Changing the status	When you change the status of a routing operation, the change does not take effect until you run the Hours and Quantities Update to update the Shop Floor Control Routing Instructions table (F3112).
Resources	The header information comes from the Work Order Master table (F4801). The detail information is stored in the Work Order Time Transactions table (F31122).
Quality Management test results	As you record actual hours and quantities to a work order, you can: ■ Access Test Results Entry for completed items that require testing. ■ Access generic text for the parent item. ■ Set processing options for default lot, work order and operation statuses. See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.

See Also:

■ Work With Work Orders in Accounting in the *JD Edwards World Product Costing and Manufacturing Accounting Guide*.

17.2 Where in the Process Do You Enter Hours and Quantities?

Figure 17–1   Process Flow
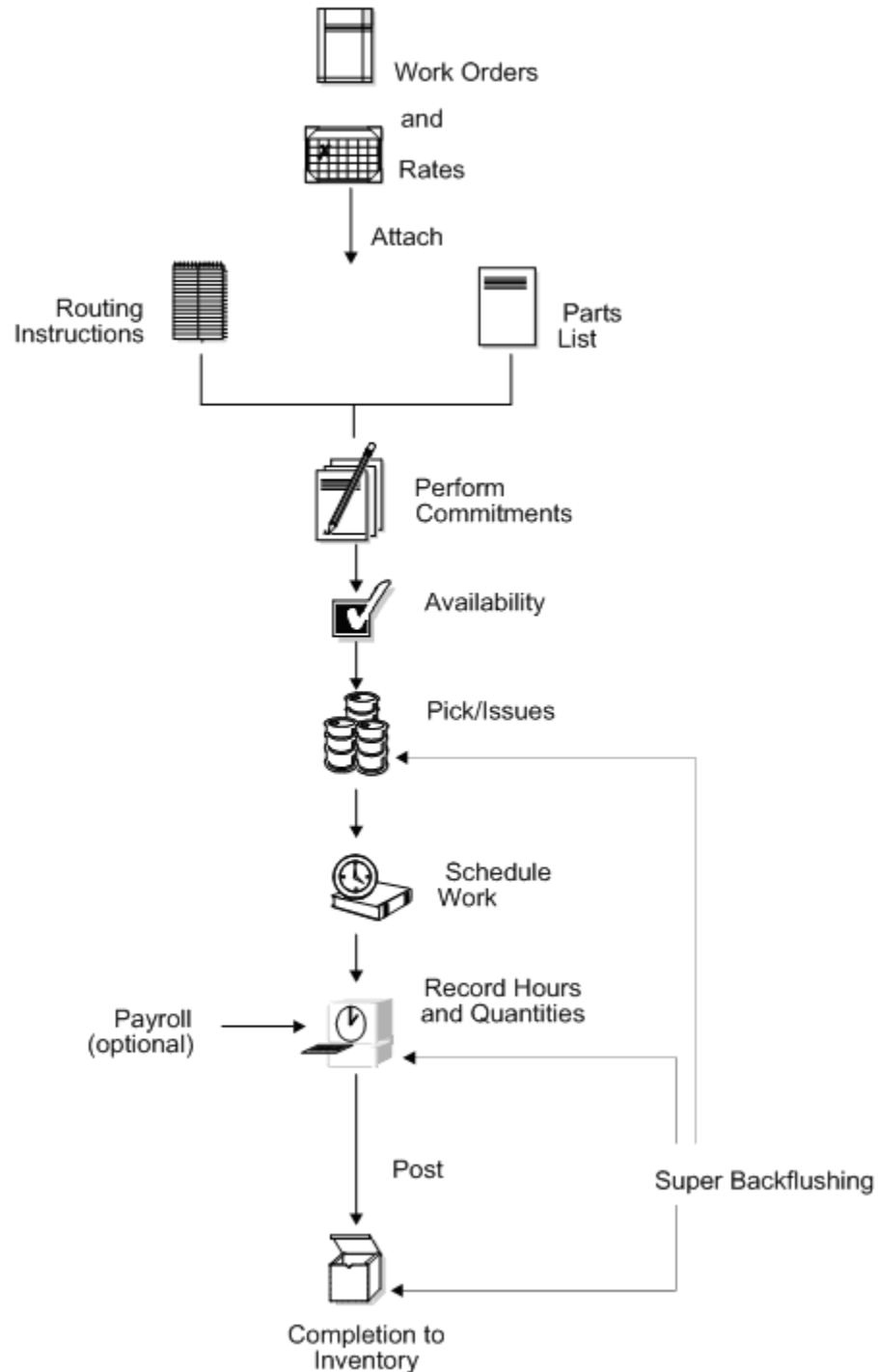
17.3 Entering Hours and Quantities Manually

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Hours & Quantities Entry

Use the Hours and Quantities program to charge actual hours and quantities to a work order. You can use the processing options to display the information in order number format or employee number format. Use these formats to record time and quantities for employees against work order routing steps or work order routing steps against employees.

> **Note:**
>
> ■ Enter the quantity completed only once per operation sequence number. Entering it for each type of hours will cause a variance amount.
>
> ■ Enter hours using beginning and ending times for each entry or the actual hours up to two decimal places.
>
> ■ To reverse completed or scrapped quantities you have entered, enter the quantity you want to reverse as a negative quantity.

As an alternative to entering hours and quantities manually, you can use the Work Order Hrs & Qty - Z File program (P311221Z) to import an extensive amount of hours and quantities into your system. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

To enter hours and quantities manually

On Hours and Quantities - Order Number format

Figure 17–2   Hours and Quantities screen
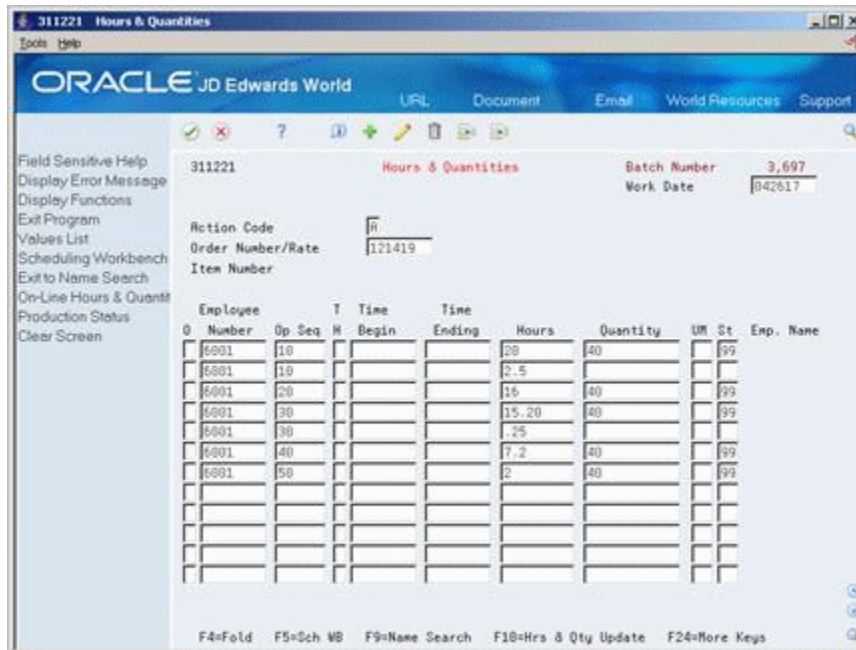
1. Complete the following fields:

   ■ Work Date

   ■ Shift

   ■ Order Number

- Operation Sequence Number

- Type of Hours

- Hours

- Quantity

- Unit of Measure

- Status

2. Access the detail area.

Figure 17–3 Hours and Quantities screen (Detail area)
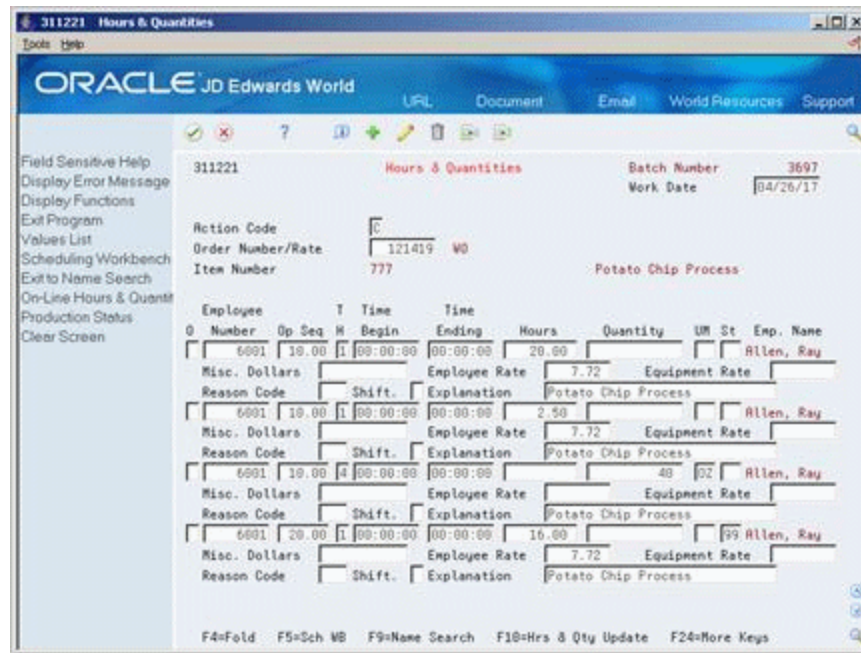
3. Complete the following optional fields:

- Miscellaneous Dollars

- Employee Rate

- Equipment Rate

- Reason Code

- Explanation

Field	Explanation
Work Date	A date that identifies the financial period to which the transaction is to be posted. The general accounting constants specify the date range for each financial period. You can have up to 14 periods. Generally, period 14 is for audit adjustments.
	The system edits this field for PBCO (posted before cutoff), PYEB (prior year ending balance), and so on.

Field	Explanation
Op Seq	In routings, this number is used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.
	In bills of material, this number designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing for the item. The Shop Floor Control system uses this field in the backflush/preflush by operation process.
	In engineering change orders, this number is used to sequence the assembly steps for the engineering change.
	Skip To fields allow you to enter an operation sequence that you want to begin the display of information.
	You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.
	Form-specific information
	This is the sequence number of the routing step on the work order. You must enter this number.
T H	A code to indicate the type of time entered. Valid codes are:
	1 – Run Labor Hours
	2 – Setup Labor Hours
	3 – Machine Hours
	4 – Quantities Completed
	5 – Quantities Scrapped
	9 – Miscellaneous (piece rate bonus and so forth)
Hours	The number of hours associated with each transaction.
Misc. Dollars	The actual gross pay amount for an employee. This is to be distinguished from the distributed gross pay amount used for labor distribution. See data item DPAY.
	When using Work Order Time Entry, use this field to record miscellaneous pay for an employee, such as piece rate bonus.
	The employee's insurable gross pay for the listed pay period.
Equipment Rate	A code that represents the amount you want to charge the job. Each piece of equipment can have numerous billing rates based on the rate code. The equipment billing rate can be composed of up to ten different rates. For example:
	Billing Rate = 200
	100 Rate 1 (Ownership Component)
	25 Rate 2 (Operating Component)
	50 Rate 3 (Maintenance Component)
	25 Rate 4 (Other Costs Component)
	When you post time entries to the General Accounting system, the system recognizes credits in revenue accounts for each of the rate components. This allows you to separate portions of the equipment billing by type of cost.
	Note: You are not required to use rate components.
Explanation	A name or remark that describes an element in the JD Edwards World systems.

Processing Options

See

17.4 Entering Hours and Quantities through Payroll Time Entry

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Payroll Time Entry

The manufacturing interface to the Payroll Time Entry form lets you enter payroll information plus additional information that appears on the Hours and Quantities form. On the Payroll Time Entry form, you can:

- Designate hours as setup, labor, or machine related, and record them against a specific routing operation for the process

- Record the quantity of pieces completed and scrapped by the employee against a specific routing operation for the process

- Update the status of a routing operation for a process

- Access the Hours and Quantities form

You can use Toggle Display Format (F17) to change the display of the fields in the detail area (fold). If you set up Enhanced Subledger Accounting, you can view and change these values in the detail area. See Work with Enhanced Subledger Accounting in the *JD Edwards World General Accounting I Guide* for more information.

You can use processing options to enter:

- A work order status code beyond which entries to the work order cannot be made

- The document type associated with shop floor activity

- The version of the Hours and Quantities form to access

The system concurrently enters the entries you make on the Payroll Time Entry form on the Hours and Quantities form. After you have entered the data into the Payroll system, you can process it.

For example, referring to the form below, the following entries have been made against work order number 1170, routing operation 10.0, by employee number 6001:

- 1.5 hours of setup time

- 4 hours of labor time

- 3 hours of machine time

- 125 pieces of product completed

- An operation status change to 35, Waiting for Inspection, for operation 10.0

Before You Begin

Verify that your JD Edwards World Payroll system is set up and running

What You Should Know About

Topic	Description
Processing hours and quantities	To process the information into the Manufacturing system, you must run the Hours and Quantities Update. This updates the Shop Floor Control Routing Instructions table (F3112) and supplies the manufacturing accounting programs with the current data. After you run this program, you will not be able to locate the data on Hours and Quantities. Before the data is updated, you can locate it and change it on either entry form, as necessary.

To enter hours and quantities through payroll time entry

On Payroll Time Entry

Figure 17–4 Payroll Time Entry screen
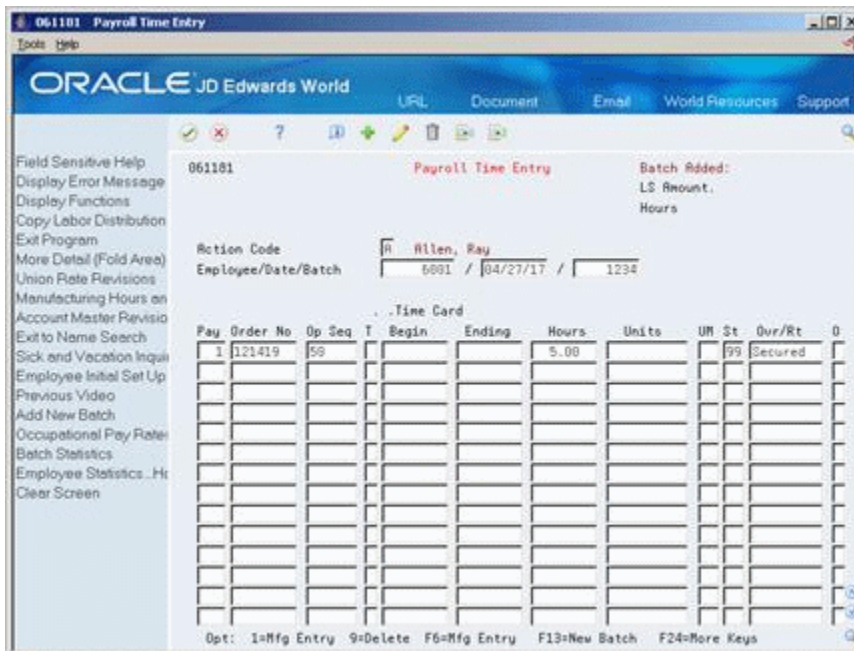
Complete the following fields:

- Employee

- Date

- Order Number

- Operation Sequence Number

- Type

- Beginning Hours

- Ending Hours

- Units

- Unit of Measure

- Status

- Hourly Rate

17.4.1 Processing Options

See Section 35.18, "Manufacturing/Payroll Time Entry (P061181)."

17.5 Updating Hours and Quantities

To process the hours and quantities into the Manufacturing system, you must run the Hours and Quantities Update batch program. This updates the Shop Floor Control Routing Instructions table (F3112) and supplies the manufacturing accounting programs with the current data. After you run this program, you cannot locate the data on the Hours and Quantities form. Before the data is updated, you can locate it and change it as necessary.

You can process hours and quantities transactions in the Manufacturing system by:

- Running the Hours and Quantities Update batch program from the menu
- Selecting the online update from the Hours and Quantities form

The method of processing you use depends on how you enter the transaction data:

- If you use Super Backflush to enter hours and quantities, the quantities transactions are processed real time. However, you must run the Hours and Quantities Update to process the hours. Super Backflush enters the transactions for you at the point in the routing that you specify and it also has a processing option to automatically run the update.
- If you enter the data on the Payroll Time Entry form, or run Super Backflush, you must either run the update program or locate the data on the Hours and Quantities form, and then use the online update selection.
- If you enter the transaction data on the Hours and Quantities form, you can use the menu selection or the online update selection to run the update.

Complete the following tasks:

- Update hours and quantities manually
- Update hours and quantities by batch

Before You Begin

- Enter the hours and quantities transaction data

To update hours and quantities manually

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete

From Daily Order Reporting - Discrete (G3112), choose Hours & Quantities Entry

On Hours and Quantities

Figure 17–5   Hours and Quantities screen
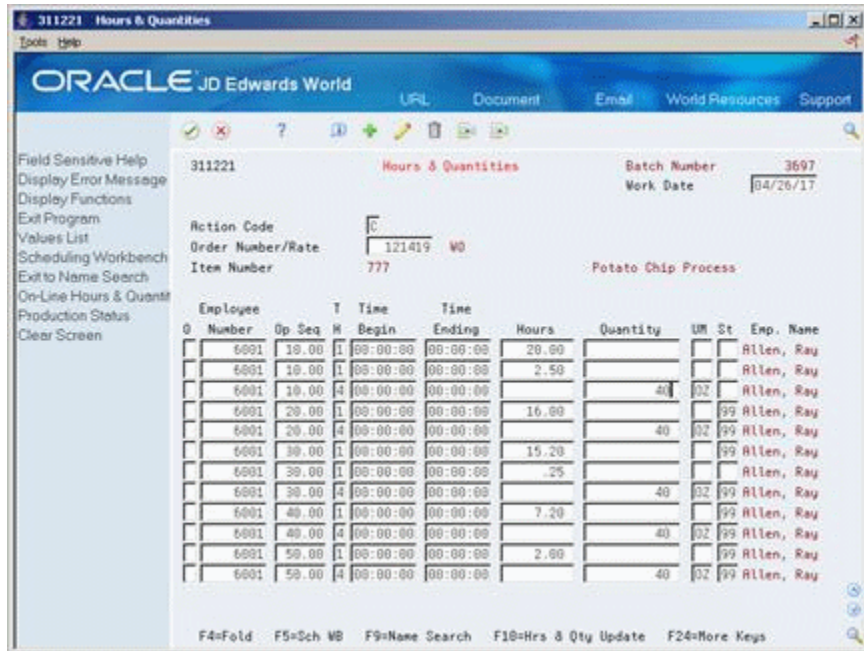
Complete the following field:

■   Order Number/Employee Number

The system only processes the records that are in the current entry session. Therefore, if you exited the form after you entered the transaction data or entered it on the Payroll Time Entry form, you must locate the data on the Hours and Quantities form, and change the records to make them current to the system.

The update takes the hours and quantities recorded against work order operations and updates them to their matching fields in the Shop Floor Control Routing Instructions table (F3112). After the update, the form clears and the records that were processed no longer appear. The system enters a P in the Processed Code field for each entry it updates so that the record cannot be updated again.

To update hours and quantities by batch

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete

From Daily Order Reporting - Discrete (G3112), choose Hours & Quantities Update

You should only update those records that have not yet been processed. Records that have not been processed have a blank Processed Code field. Run the DREAM Writer version to process the transactions.

17.6 Reviewing Hours and Quantities Transactions

After you enter hours and quantities, either manually or through payroll time entry, you can review and revise them before you process them to the Manufacturing system for further tracking and cost accounting. You can review the hours and quantities either online or using a report.

Complete the following tasks:

■ Review the status of hours, quantities, and operation quantities

■ Review the hours and quantities report

17.6.1 Reviewing the Status of Hours, Quantities, and Operation Quantities

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete

From Daily Order Reporting - Discrete (G3112), choose Production Status

The Production Status program allows you to review the status of all work orders by work center, item number, or order number within status and date ranges. This program displays historical and work remaining information.

To review the status of hours, quantities, and operation quantities

On Production Status

Figure 17–6   Production Status screen
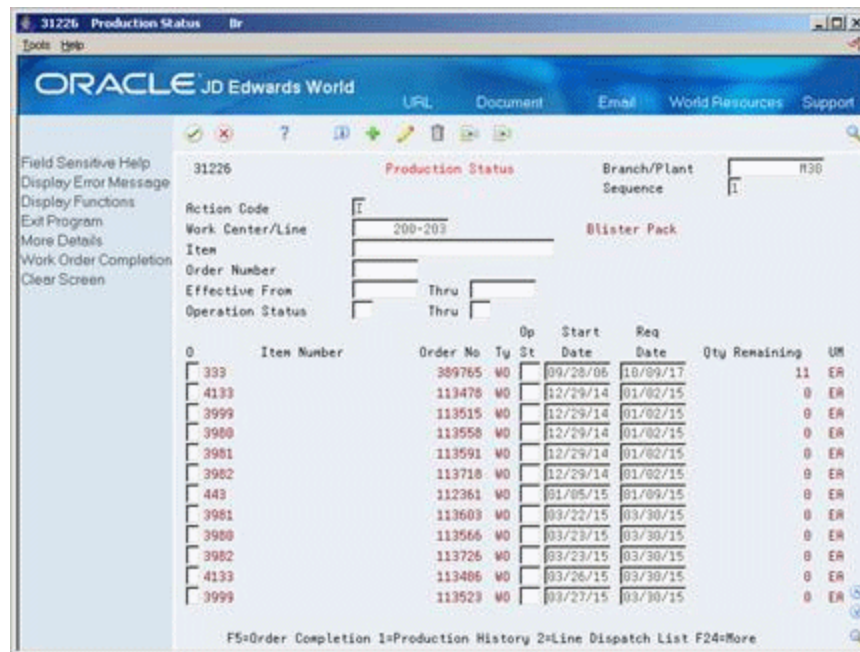
Complete the following fields:

■ Work Center/Line

■ Item Number

■ Branch Plant

Complete the following optional fields:

■ Order Number

■ Status

■ Date Range

Access the detail area.

Figure 17–7   Production Status screen (Detail area)
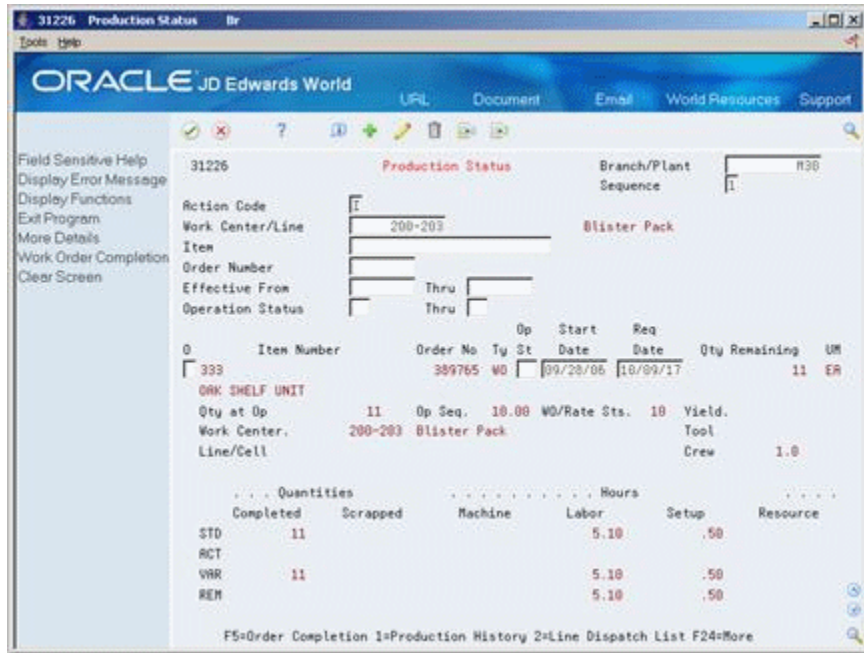
17.6.2 Reviewing the Hours and Quantities Report

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete

From Daily Order Reporting - Discrete (G3112), choose Hours & Quantities Proof

The Hours and Quantities Proof report lists all labor hours and completed quantities recorded against a work order. You can total the hours and quantities in various ways, such as by employee, work order, item, operation, and so forth.

Using the Hours and Quantities Proof, you can print the hours and quantities transactions that have been entered and review them before you process them to the system. Before they are processed, the transactions can be changed and updated. After you process them, they cannot be changed.

```
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                                Hours & Quantities Journal             Date   - 03/16/18


 W.O.                      Employee                   Work  T  Hourly  . . . . . . . Hours . . . . . .   Quantity
 Number  Ty W.O. Description Number Employee Name  Op Seq Date  H  Rate   Machine     Labor      Setup   Completed UM
 -------- -- ---------------- -------- ---------------- ----- -------- - ------- ----------- ----------- ---------- ------------ --
 90000080                                          10.00         1               19.349,60
                                                   10.00         2                             114,00
                                                   10.00         4                                              96748
                                                   20.00         1               19.349,60
                                                   20.00         4                                              96748
                                                   30.00         1                7.739,84
                                                   30.00         3     4.837,40
                                                   30.00         4                                              96748
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .     4.837,40   46.439,04   114,00

 90000081                                          10.00         1                 509,20
                                                   10.00         2                               3,00
                                                   10.00         4                                               2546
                                                   20.00         1                 509,20
                                                   20.00         4                                               2546
                                                   30.00         1                 203,68
                                                   30.00         3      127,30
                                                   30.00         4                                               2546
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .      127,30    1.222,08    3,00

 90000082                                          10.00         1                 509,20
                                                   10.00         2                               3,00
                                                   10.00         4                                               2546
                                                   20.00         1                 509,20
                                                   20.00         4                                               2546
                                                   30.00         1                 203,68
                                                   30.00         3      127,30
                                                   30.00         4                                               2546
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .      127,30    1.222,08    3,00

 90000090                                          10.00         1               26.998,40
                                                   10.00         2                             156,00
                                                   10.00         4                                             134992
                                                   20.00         1               26.998,40
                                                   20.00         4                                             134992
                                                   30.00         1               10.799,36
                                                   30.00         3     6.749,60
                                                   30.00         4                                             134992
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .     6.749,60   64.796,16   156,00
                                                              ----------- ----------- ----------
                                                             11.841,60  113.679,36   276,00

     852 WO Unit 2          6001 Allen, Ray        40.00 06/15/18 1  7.72            12,00                               EA
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .                 12,00

    2057 WO OAK SHELF UNIT                          25.00 12/30/18 4                                          100  EA
                                                              ----------- ----------- ----------
                   Order Number . . . . . . . . . . . . .
```

Processing Options

See

18

Schedule Work Orders

This chapter contains these topics:

18.1 Overview

As part of your scheduling activities, you can monitor work order progress, manage work order releases, and update the status of any order to keep your material planning schedule valid. When you work with schedules, you can display manufacturing work orders by item, planner, customer, parent work order, status, type, and priority, or a combination of these. You can also display work orders by start date or requested date and you can enable the system to sort them by either start date or requested date. You can set these defaults for the form in the processing options.

Processing options also determine the default values for various fields and control which versions of associated programs are used when you access them. You can also access related information, such as work orders, sales orders, purchase orders, parts lists, and routing instructions.

After a work order is on the shop floor, you must review the order and check capacity at each work center that the order is scheduled to go through. You might need to change a schedule to keep the Material Requirements Planning and Master Production Scheduling schedules valid.

See Also:

- Appendix B, "Lead Times" for information on how the system calculates leadtime for a work order,

- Section 23, "Review Information for Discrete Manufacturing."

18.2 Where in the Process Do You Schedule Work?

Figure 18–1   Process Flow
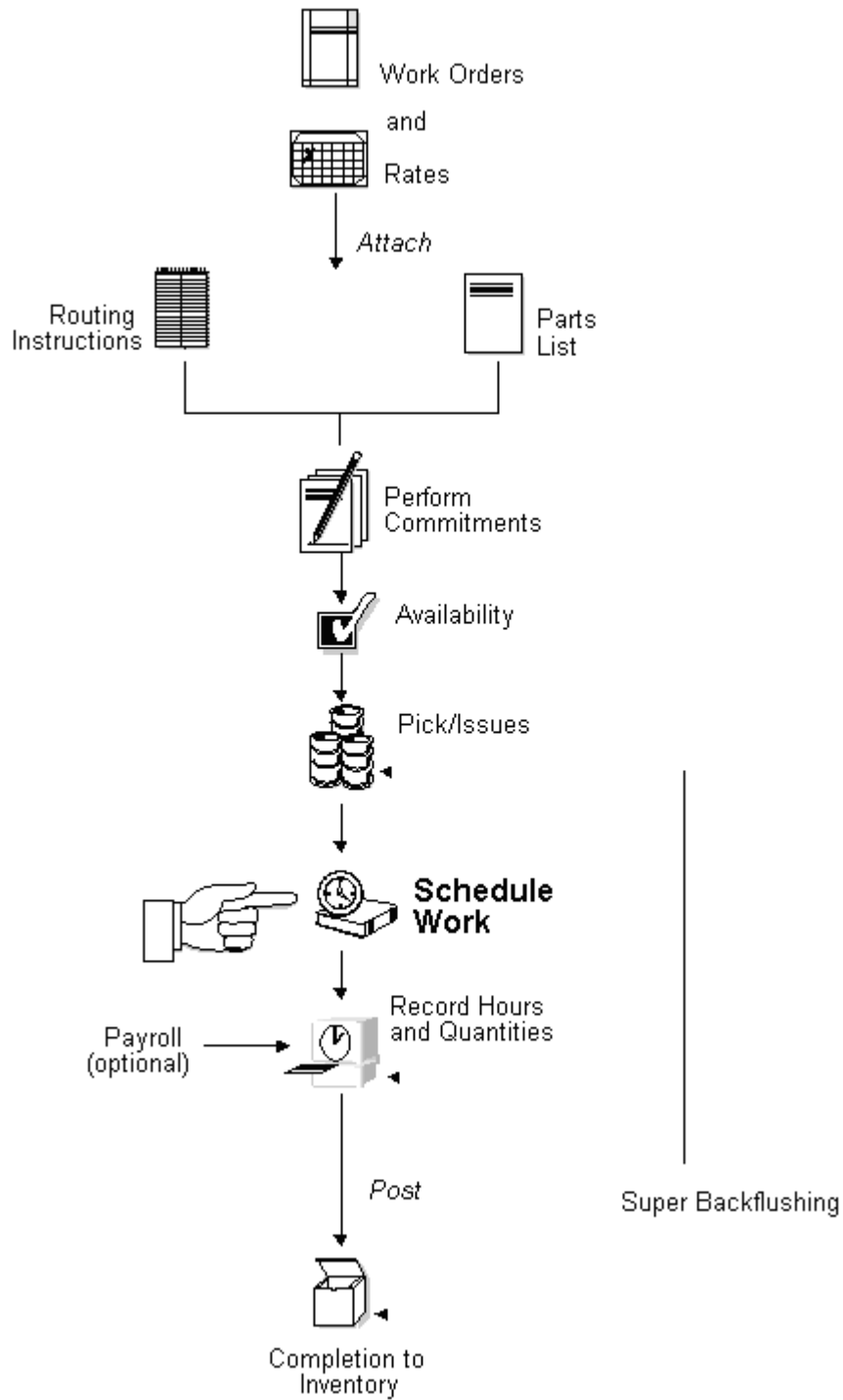
18.3 Reviewing Work Order Information

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Shop Floor Workbench

After a work order is on the shop floor, you must review the order and check capacity at each work center that the order is scheduled to go through. When you review a work order, you can change the status, type, priority rating, freeze code designation, or type of flash message.

The Shop Floor Workbench program provides centralized access to the functions organizations need to manage and monitor the work order process. As well as being able to view the parts list and routings for the listed work orders, there are options to either view or edit the associated sales and purchase orders. The program also provides access to Work Order Completions and Super Backflush.

To review work order information

On Shop Floor Workbench

Figure 18–2 Shop Floor Workbench screen
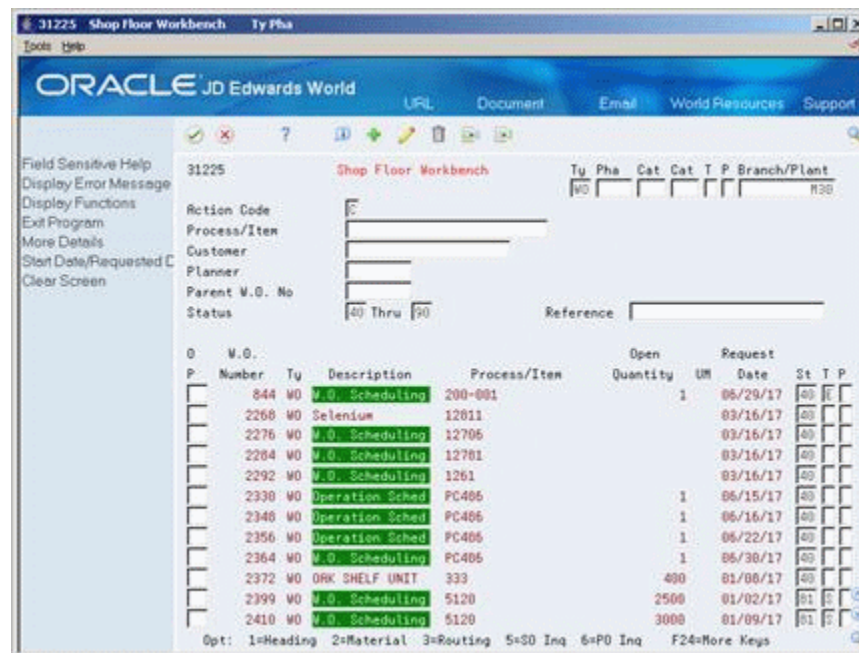
1. Complete the following field:

    ■   Branch/Plant

2. Complete the following optional fields:

    ■   Document Type

    ■   Phase/Matter Code

    ■   Category Code 2

    ■   Category Code 3

    ■   Work Order/ECO Type

- Work Order Priority
- Parent Item
- Planner
- Customer
- Parent Work Order Number
- Status From
- Status Through
- Search Cross Reference

3. Access the detail area.

Figure 18–3   Shop Floor Workbench screen (Detail area)
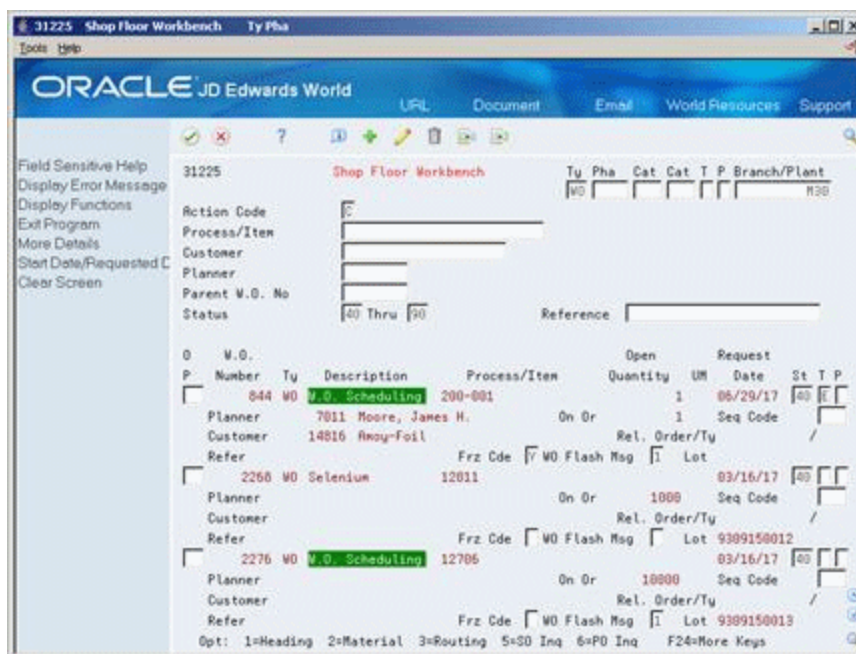
4. Complete the following optional fields:

- Freeze Code Designation
- Type of Flash Message

Field	Explanation
Thru	Enter a status code (00/SS) that you want the system to use as a beginning point for selecting work order information.
	There are three ways to enter the status code information:
	■ Enter a range of statuses by entering codes in both the From and Thru fields.
	■ Enter only a From code to view work orders beginning with a particular status. For example, 10 Thru displays all work orders with a status of 10 or more.
	■ Enter only a Thru code to view work orders ending with a particular status. For example, Thru 40 displays all work orders with a status of 40 or less.

Field	Explanation
WO Flash Msg	A user defined code (system 00, type WM) that indicates a change in the status of a work order. The system indicates a changed work order with an asterisk (*) in the appropriate report or inquiry form field. The flash message is highlighted in the Description field of the work order.

18.4 Revising Work Order Information

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Shop Floor Workbench

After you review work order information, you might need to revise some of the information.

To revise work order information

On Shop Floor Workbench

1. Complete the following optional fields:

   ■ Status

   ■ Work Order/ECO Type

   ■ Work Order Priority

2. Access the detail area.

3. Complete the following optional fields:

   ■ Freeze Code Designation

   ■ Type of Flash Message

You can use the selection exit to access the work order and make any additional changes.

Processing Options

See Section 35.16, "Manufacturing Scheduling Workbench (P31225)."

18.5 Printing Scheduling Information for Work Centers

Navigation

From Shop Floor Control (G31), choose Discrete Periodic Functions

From Periodic Functions - Discrete (G3121), choose Dispatch List

Use Dispatch List to plan and execute the production in a work center. The Dispatch List DREAM Writer report includes the work center scheduling information that appears on the Dispatch List Inquiry form.

Figure 18–4   Schedule by Work Center report

```
31435                                    JD Edwards World                          Page      -        1
                                        Schedule by Work Center                    Date      - 14/03/18


         Work    Oper   Order   WO T Op Related      Start   Request Remaining Remaining Remaining  Quantity
         Unit    Seq#   Number  Ty St Y St Order  TY Date     Date   Machine   Labor     Setup      Remaining  UM
        ------  ------  ------  -- -- - - -------  -- -------- -------- --------- --------- --------- --------- --
         MACH    2,00   164048 WM 99 Z              27/02/15 27/02/15                     10,00                   10
         MACH    2,00   164056 WM 99 Z              27/02/15 27/02/15                     10,00                   10
         MACH    2,00   164064 WM 98 6              27/02/15 27/02/15                                              0
         MACH    2,00   164072 WM 98 6              27/02/15 27/02/15                                              0
         MACH    2,00   164208 WM 40 6              27/02/15 27/02/15  10,00                                       1
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          10,00     20,00
                                                                      ========= ========= =========
         MACH    2,00    16461 WM 98 6              28/02/15 28/02/15  10,00                                       1
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          10,00
                                                                      ========= ========= =========
         MACH    2,00   164081 WM 30 6              02/03/15 02/03/15  10,00                                       1  EA
         MACH    2,00    16492 WM 98 6              02/03/15 02/03/15  10,00                                       1
         MACH    2,00    16493 WM 30 6              02/03/15 02/03/15  10,00                                       1
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          30,00
                                                                      ========= ========= =========
         MACH    2,00      473 WM 30 6              07/03/15 07/03/15  10,00                                       1
         MACH    2,00      474 WM 30 6              07/03/15 07/03/15  10,00                                       1
         MACH    2,00      475 WM 30 6              07/03/15 07/03/15  10,00                                       1
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          30,00
                                                                      ========= ========= =========
         MACH    2,00   164082 WO 10 5              03/04/15 03/04/15  10,00     5,00                             1  EA
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          10,00     5,00
                                                                      ========= ========= =========
         MACH    2,00   164136 WO 05 5              04/04/15 04/04/15  10,00     5,00                             1
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          10,00     5,00
                                                                      ========= ========= =========
         MACH    2,00    16479 WO 30 6              04/05/15 04/05/15  10,00                                      1  EA
                                                                      --------- --------- ---------
                Requested. . . . . . . . . .                          10,00
                                                                      ========= ========= =========
```

19

Complete Work Orders

This chapter contains these topics:

19.1 Overview

When you finish production of items on the shop floor, you need to record the completions to inventory in the system. The completion transactions that you enter in the Shop Floor Control system update the item quantity records in the Inventory Management system.

You use the Super Backflush and Completion programs to record completions. Use these programs to perform one of two functions:

- Report all items as complete when the entire work order is finished

- Report partial completions as they occur throughout the production process

When you choose to report completions depends on your production cycle time. Depending on the nature of the manufactured item, you can report partial completions or report total completions in one transaction. Reporting partial completions also can indicate the stage or progress that is being made on an order in production, and identify any delays in the production process.

When you use the Completions program to complete more than the quantity ordered, the system highlights the Completed Quantity field and warns you that completing the quantity you designated will generate an overcompletion.

If a previous completion exists for a work order, the system displays information in the lot, grade or potency, and status fields. Also, if you enter a quantity, the system adds inventory to the lot at the grade or potency and the current status.

What You Should Know About

Topic	Description
Blending, filling, and packaging	When you complete a work order to a blending, holding, or storage tank, the system checks the tank capacity and displays an error if the completion would exceed the tank's capacity.
	When you complete inventory the system allows you to access the Dip Volume Calculator/Meter Readings program to enter readings.
	Work order completions allow you to enter ambient quantities and current temperature and/or density information. The system calculates and stores the standard quantity and weight accordingly.
	See *JD Edwards World Bulk Stock Management Guide*.
Quality Management test results	As you enter work order completions, including quantity completed and quantity scrapped, you can:
	■ Access Test Results Entry for any items requiring testing upon completion.
	■ Review work order generic text.
	■ Set processing options for default lot, work order, and operation statuses.
	As you backflush labor and material for a work order, you can:
	■ Access Test Results Entry for any items that require testing.
	■ Review generic text for the parent item and operations.
	See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.

Topic	Description
Warehouse Management system interface	If you process transactions for a branch/plant that uses warehouse control, the Location Detail window appears when you enter backflush transactions, and a second location detail information record is created. In this case, you select Location Detail Information records for processing. To ensure that the quantities in the Location Detail Information table (F4602) are consistent, you should make a selection from the window.
	The original quantity being processed through this transaction program, using the Location Detail window, displays in the top of the Super Backflush window.
	If the item being processed has a unit of measure structure or storage containers, the system enters them in the detail area of the Location Detail window. Although you can override these values, the system performs the following edits:
	■ The primary unit of measure in the structure and the last level specified are valid based upon unit of measure conversions in Item Master.
	■ The units of measure display from largest to smallest.
	■ The structure must result in whole number conversions between units of measure.
	■ Each unit of measure can only contain one partial quantity for that unit of measure.
	■ You can only overfill pallet type units of measure as defined in the Unit of Measure Definition by Item or by Item Group.
	The system always displays this window when adding inventory to the branch/plant, except in the following case:
	■ Removal of inventory and only one location detail record is in the location. The removal is automatically performed to the single location detail.
Receipt Routing	When using Receipt Routing at Work Order Completions activate processing option 15 on Work Order Completion (P31114).

See Also:

■

■ *JD Edwards World Quality Management Guide*.

19.2 Completing a Work Order without Backflushing

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Partial Completions

Use the Partial or Full Completion program to record completions without backflushing the materials.

To complete a work order without backflushing -

On Partial Completion

Figure 19–1 Partial Completions screen
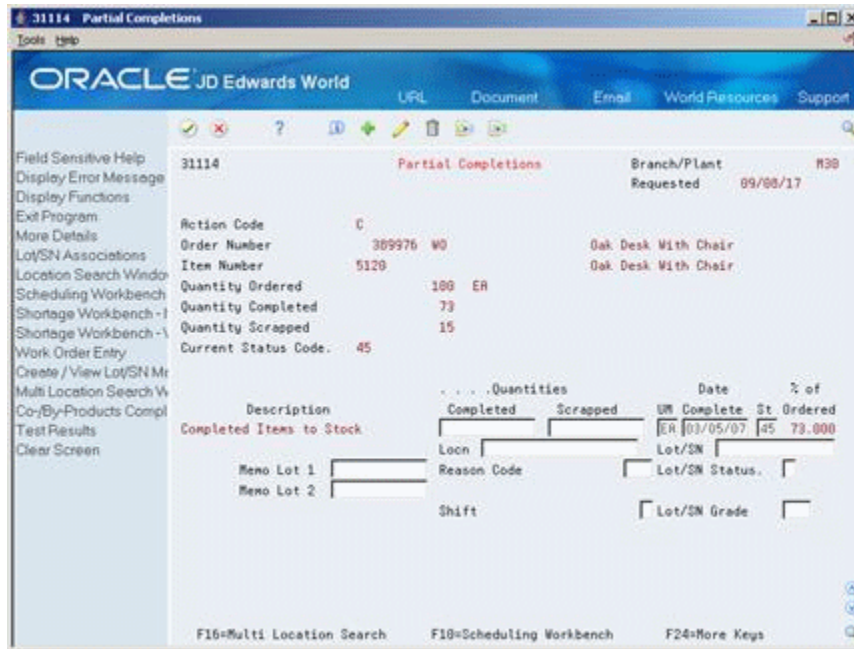
1. Complete the following fields:

   - Order Number

   - Quantity Complete

   - Quantity Scrapped

   - Date Complete

   - Status

   - Lot Status (optional)

   - Memo Lot 1 (optional)

   - Memo Lot 2 (optional)

   - Reason Code (optional)

   - Shift (optional)

2. Complete the following fields if you are completing to a location other than the primary location:

   - Location

   - Lot

3. Lot/SN Potency or Lot/SN Grade (if defined for the item)

Field	Explanation
Unit of Measure	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.
	Form-specific information
	If you leave this field blank, the system uses the unit of measure from the Work Order Header table and updates the quantities in the Item Location table in primary units of measure. If this value is not the primary unit of measure, the system converts it to the primary unit of measure.

Processing Options

See Section 35.20, "Work Order Completion - Full (P31114)."

19.3 Completing a Work Order through Backflush

Use the Completion with Backflush program to record full or partial completions while backflushing the materials. Running this program completes the quantity to stock.

Completing a work order through backflush consists of:

- Completing a work order

- Releasing sales backorders during completions (optional)

- Managing completions using receipts routing (optional)

Before You Begin

- Set the appropriate processing options to access the Inventory Issues program and to identify the version to use

- Before you release backorders during completion, set processing options to enable backordered sales orders to appear and to identify the version of the Backorder Release program to use

- Before you can manage completions using Receipts Routing, set a processing option to initiate the receipt routing process

To complete a work order

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete (G3112)

From Daily Order Reporting - Discrete (G3112), choose Completion with Backflush

On Completion with Backflush

Figure 19–2 Completion with Backflush screen
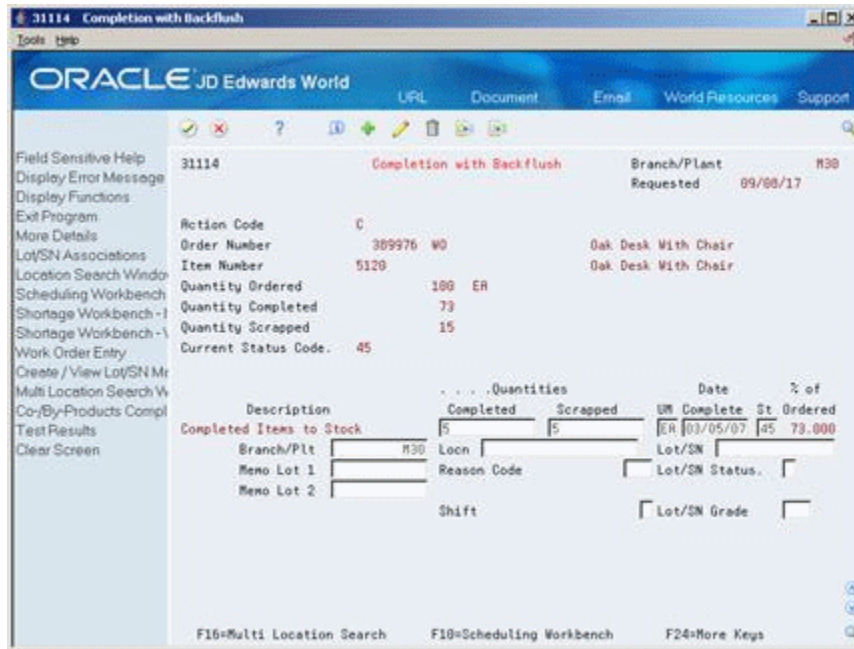
1. Complete the following fields:

   ■ Order Number

   ■ Quantity Complete

   ■ Quantity Scrapped

   ■ Date Complete

   ■ Status

   ■ Lot Status (optional)

   ■ Memo Lot 1 (optional)

   ■ Memo Lot 2 (optional)

   ■ Reason Code (optional)

   ■ Shift (optional)

2. Complete the following fields if you are completing to a location other than the primary location:

   ■ Location

   ■ Lot

   ■ Lot/SN Potency or Lot/SN Grade (if defined for the item)

   The Work Order Inventory Issues form appears.

Figure 19–3   Work Order Inventory Issues screen
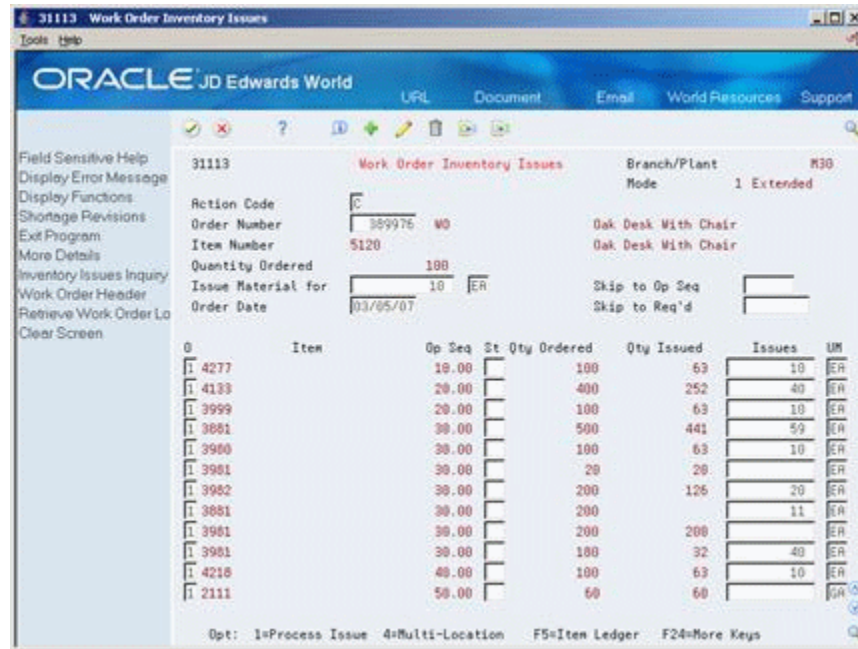
3. 3. On Work Order Inventory Issues, issue the material by accepting the records displayed.

Field	Explanation
UM	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.
	Form-specific information
	If you leave this field blank, the system uses the value from the Parts List table and updates the quantities in the Item Location table in the primary unit of measure.

To release sales backorders during completions

Navigation

From Shop Floor Management (G31), choose Daily Order Reporting - Discrete (G3112)

From Daily Order Reporting - Discrete (G3112), choose Completion with Backflush

The JD Edwards World Sales Order Management system identifies items that are being manufactured as backordered items. When you complete the items in the Shop Floor Control system using the Completions program, you can release the sales order backorders.

On Completion with Backflush

1. Complete the work order by accepting the records displayed.

    ■   The Back Order Release form appears.

Figure 19–4   Back Order Release screen
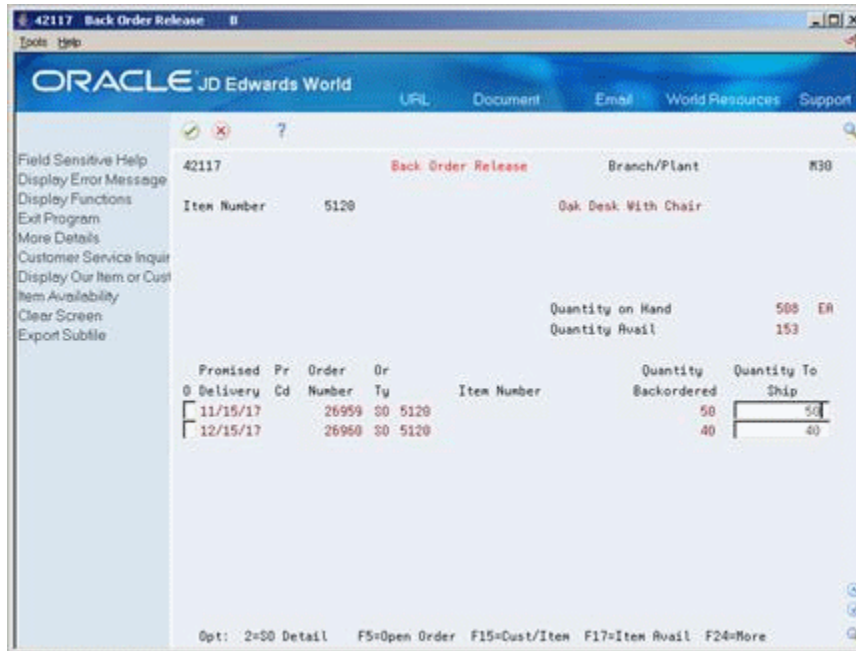
2. On Back Order Release, review the following default information:

    ■   Order Number

    ■   Order Type

    ■   Item Number

    ■   Quantity Backordered

    ■   Quantity To Ship

If the available quantity plus the amount being received is enough to fill any or all of the backorders, the system enters the amount for that order in the Quantity to Ship field on the Back Order Release form.

Field	Explanation
Quantity Backordered	The number of units backordered in Sales Order Management or in Work Order Processing, using either the entered or the primary unit of measure defined for this item.

To manage completions using receipts routing

Navigation

From Stock Based Procurement (G43A), choose Receipt Routing

From Receipt Routing (G43A14), choose Routing/Analysis Revisions

You set up a receipt route in the Procurement system by specifying a unique receipts routing code name in the user defined codes (43/RC) and an operation name in user defined codes (43/OC). You enter a Y in any of the update fields on Receipt Routing Definition to have the system update the appropriate field in the Item Location table when an item arrives at the operation.

The system considers items on-hand and eligible for payment only at the end of a receipt route. You must enter a Y (Yes) in the On-Hand column for the system to assign

the last operation to a route. The system assigns a Y in the Pay field on the operation to which a Y is assigned in the On-Hand column.

You enter disposition information for a route in the Procurement system when you use the Disposition Setup program. This information includes whether items dispositioned out of a receipt route are eligible for payment. If you classify a category as eligible for payment, the system creates journal entries when it dispositions items in the category. The code in the General Ledger Category field determines which account the system debits. The system credits the Received Not Vouchered account.

For the system to direct items through a receipt route, you must assign a route to each item. You assign receipt routes to items based on item/supplier relationships.

> **Note:** For manufactured items, the supplier must be *WO.

On Routing/Analysis Revisions

Figure 19–5 Routing/Analysis Revisions screen
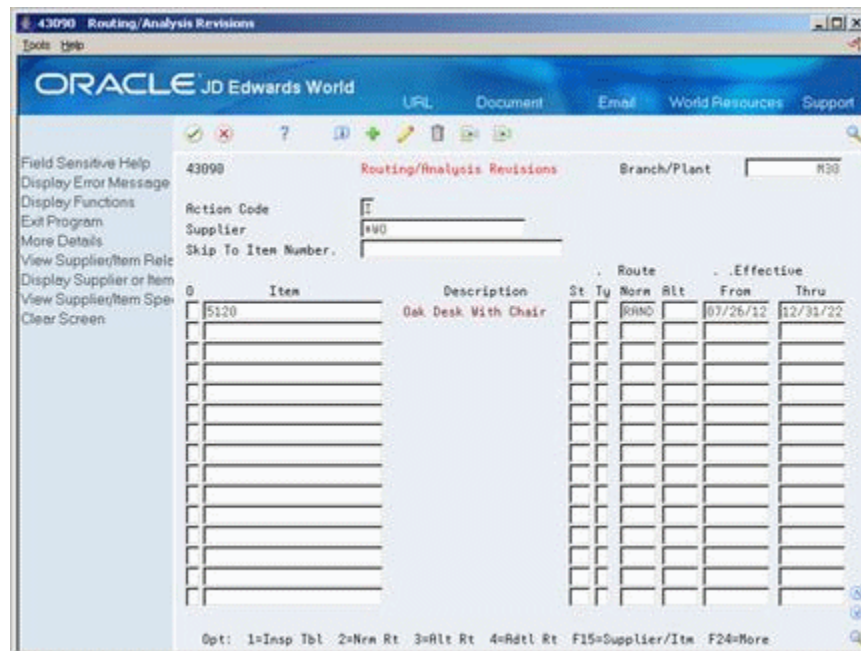
Complete the following fields:

- Normal Route
- Effective From
- Effective Through

What You Should Know About

Topic	Description
Issuing material from locations not listed on the parts list	After you complete the work order by accepting the records shown on Completion with Backflush, do the following: ■ Access Multiple Locations ■ Move commitments ■ Issue the material

Topic	Description
Locating the status of the receipts routing	Use Status Inquiry to locate the status of the receipts routing. You can access Operation Movement Detail to view the details of a step. You can set a processing option in the Completions program to initiate receipts routing.

See Also:

- Reviewing Manufacturing AAIs (P40901) in the *JD Edwards World Product Costing and Manufacturing Accounting Guide*,

- Entering Receipts in the *JD Edwards World Procurement Guide*.

Processing Options

See Section 35.21, "Release Backorders (P42117)."

19.4 Completing Partial Quantities on Work Orders

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Partial Completion

You can use the Completion program to record completed quantities for a work order in one of two ways:

- Full completion allows you to complete all quantities for all materials on a work order.

- Partial completion allows you to complete parts of the quantity ordered for a work order.

The form displays completed and scrapped quantities and percent complete information for a work order.

Complete the following tasks:

- Complete partial quantities on a work order

- Complete a work order for multiple locations (optional)

To complete partial quantities on work orders

On Partial Completion

Figure 19–6 Partial Completion screen

1. Complete the following fields:

   - Order Number

   - Completed Quantities

   - Scrapped Quantities

2. Complete the following optional fields:

   - Date Complete

   - Memo Lot 1

   - Memo Lot 2

   - Reason Code

   - Shift

3. Complete the following field if you did not set it in the processing options:

   - Status

4. Complete the following fields if you are not completing to the primary location:

   - Location

   - Lot

   - Lot Status

   - Lot/SN Potency or Lot/SN Grade (if defined for the item)

To complete a work order for multiple locations

On Partial Completion

1. Complete the following fields:

   - Order Number

   - Completed Quantities

- Scrapped Quantities

2. Complete the following optional fields:

    - Date Complete

    - Memo Lot 1

    - Memo Lot 2

    - Reason Code

    - Shift

3. Complete the following field if you did not set it in the processing options:

    - Status

4. Complete the following fields if you're not completing to the primary location:

    - Location

    - Lot

    - Lot Status

    - Lot/SN Potency or Lot/SN Grade (if defined for the item)

5. Choose Select Multiple Locations.

    Note:

    In order to access this window, a Completed Quantity must be entered on the completions form.

Figure 19–7   Select Multiple Locations window

6. On Select Multiple Locations, complete the following fields:

    - Quantity Completed

    - Location

    - Lot

7. Review the following default information:

    - Branch/Plant

What You Should Know About

Topic	Description
Completing a full work order	Use the Full Completion menu selection to complete all quantities for all materials on a work order.
Displaying the Lot expiration date	On the Work Order Completions program (P31114) there is a processing option (27) that can be set on so that the Lot expiration date is displayed.

19.5 Processing Work Orders through Super Backflush

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Super Backflush

Super Backflush is a DREAM Writer batch program that creates backflush transactions against a work order or rate schedule at pay points defined in the routing. Super backflushing allows you to relieve inventory at strategic points throughout the manufacturing process.

For example, you manufacture bicycles. Not all parts are required at the first operation. As component material is brought into the production process, it is relieved from inventory at points within this process. In this example, the cycle time might be three days.

Rather than relieving all parts for the work order or rate schedule at the start date, you can define more logical points within the production process to relieve the inventory as you use it. You can define operations in the parent item's routing at which various components are needed and at which operation you want the system to record the inventory transaction.

You can enter completed and scrapped quantities by operation and employee. The system automatically completes the work order, or you can review and revise the transactions. The backflush procedure can perform the following transactions by operation:

- Issue parts to the work order or rate schedule

- Record hours and quantities against the work order or rate schedule at standard values

- Record inventory completions

The system records the transactions from the pay point you indicate in the routing back to the first operation or the previous pay point, if one has been defined.

You can set processing options for the Super Backflush program to:

- Indicate the versions of associated programs to access

- Select document types to be used when creating transactions

- Select update status codes for operations and the work order or rate schedule header

- Indicate a status code beyond which entries to work orders or rate schedules cannot be made

- Store hours and quantities in related tables for review.

■ Update hours and quantities for later processing by manufacturing accounting

■ Either access a specified version of the following programs or automatically execute the process without the form displaying:

■ Hours and Quantity

■ Material Issues

■ Work Order Completions

To process a work order through super backflush
On Super Backflush

Figure 19–8   Super Backflush screen
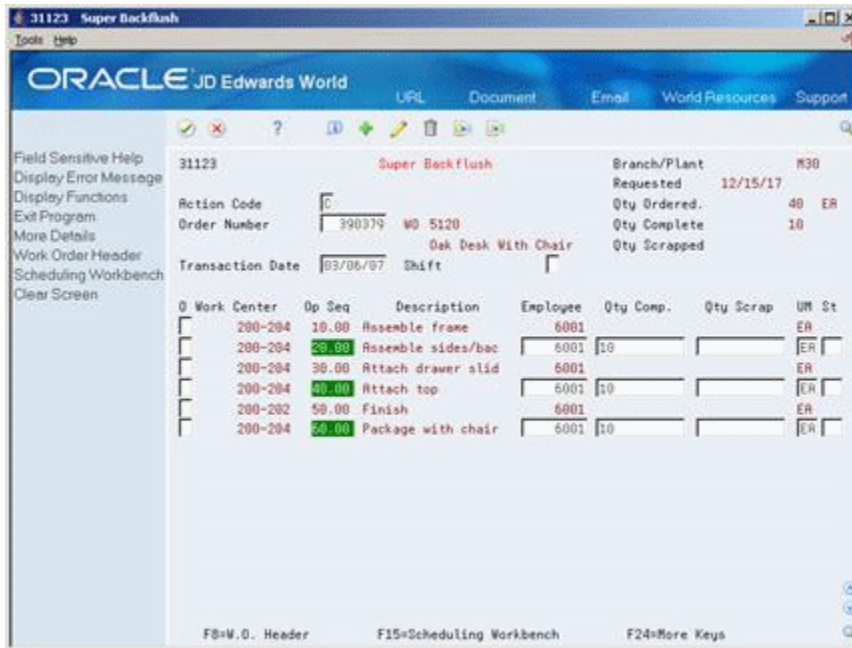
1. Complete the following fields:

■ Order Number

■ Transaction Date

■ Shift

■ Employee

■ Quantity Complete

■ Status

2. Access the detail area.

Figure 19–9   Super Backflush screen (Detail area)
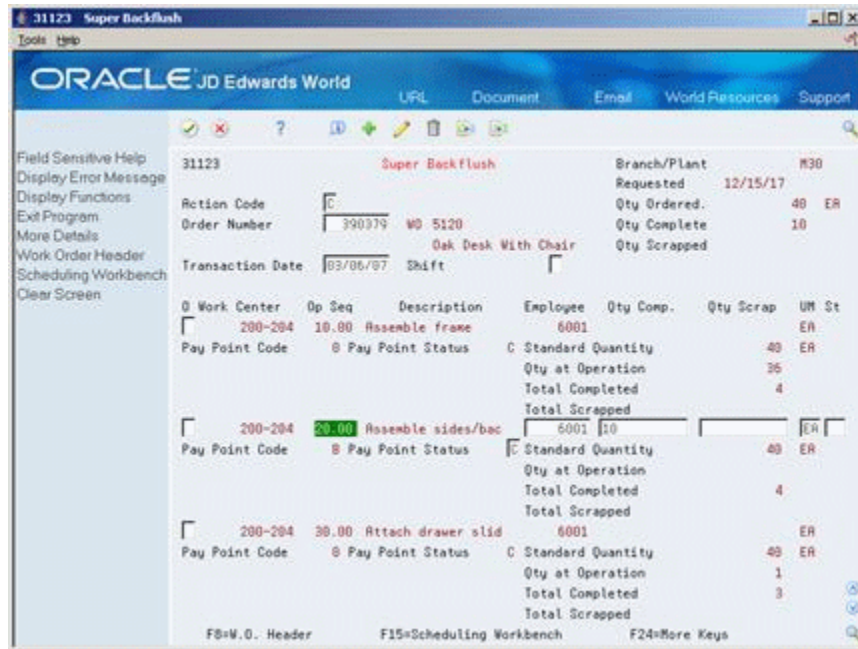
3. Complete the following optional field:

■   Pay Point Status

The Work Order Inventory Issues form appears.

Figure 19–10   Work Order Inventory Issues screen
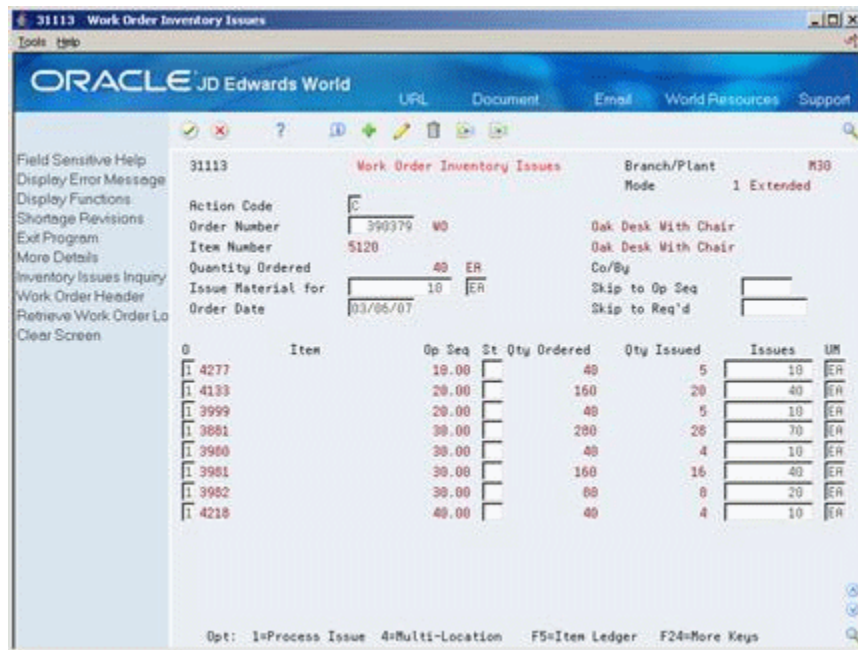
On Work Order Inventory Issues, the system automatically provides values in the following fields:

■   Status

- Issues

- Unit of Measure

- Branch/Plant

- Location

4. Process all transaction forms and the system processes the information according to the issue type code and pay point type assigned to each operation.

If an operation is defined as a pay point, and the pay point is set up to issue material and report labor, when the operation is recorded as complete, the system issues the ingredients and backflushes labor from the last defined pay point up to the previous pay point.

The W.O. Time Entry form appears.

Figure 19–11   W.O. Time Entry screen
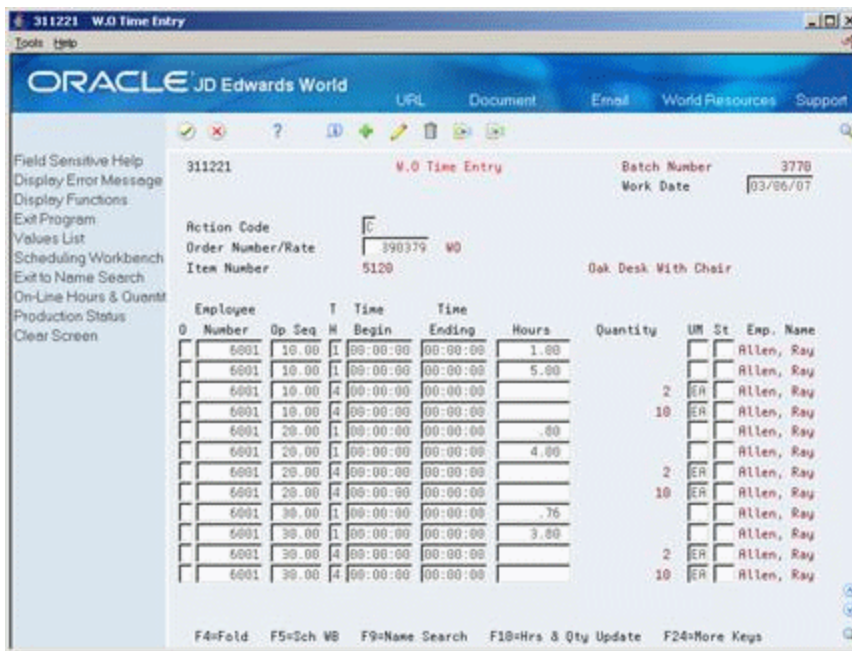
5. On W.O. Time Entry, review the following fields:

- Employee Number

- Operation Sequence Number

- Type of Hours

- Beginning Hours

- Ending Hours

- Hours

- Quantity

- Unit of Measure

- Status

- Employee Name

The Work Order Completion form appears.

Figure 19–12   Work Order Completion screen
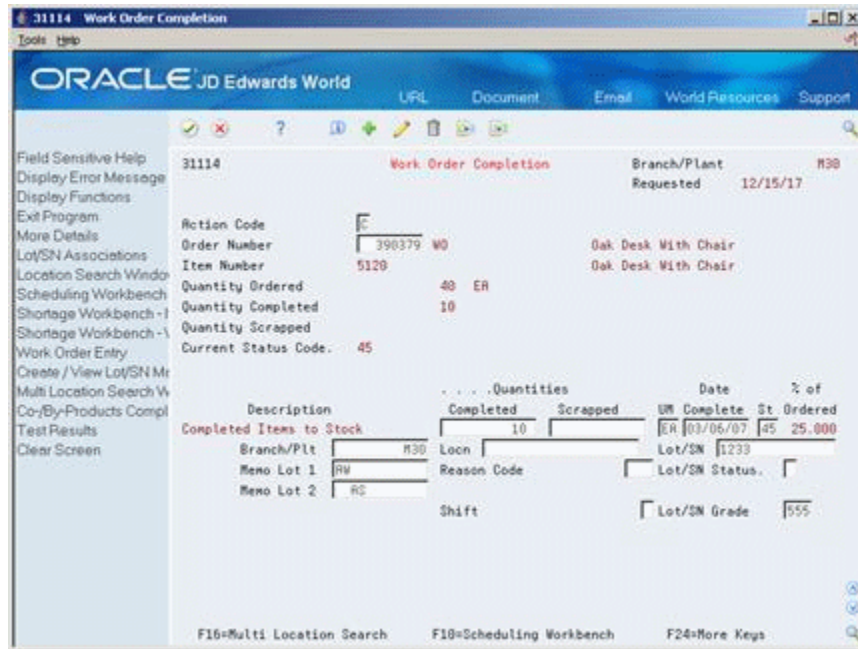
6. On Work Order Completion, accept the transaction.

Field	Explanation
Pay Point Status	A code that indicates whether the operation should be taken to complete or partially complete status. Valid codes are: Blank Not reported PQ – Partially complete C – Completed
UM	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on. Form-specific information If you leave this field blank, the system uses the value from the Parts List table and updates the quantities in the Item Location table in the primary unit of measure.

What You Should Know About

Topic	Description
Resources	The information in the detail area of the form is from the Shop Floor Control Routing Instructions table (F3112). The information in the header is from the Work Order Master table (F4801).
Operation numbers	Operation numbers defined as pay points appear in reverse image on the form.

Topic	Description
Blending, filling, and packaging	When you use the Super Backflush program with bulk products the system:
	■ Updates the previous product on the Work Center Master
	■ Updates the current or previous product on the Tank Master
	■ Writes a bulk item ledger record along with the Item Cardex.
	See *JD Edwards World Bulk Stock Management Guide*.
Running Super Backflush from the Shop Floor Workbench	The Shop Floor Workbench provides centralized access to the functions an organization needs to manage and monitor the work order process. Super Backflush can be performed on demand as a line option against a work order from within the Shop Floor Workbench program.

See Also:

■ Section 17.6, "Reviewing Hours and Quantities Transactions" for information on the statuses of work orders.

Processing Options

See Section 35.22, "Super Backflush (P31123)."

19.6 Processing Work Orders Using Quantity at Operation

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Hours & Quantities

You report quantities against work order operations using either Hours and Quantities or Super Backflush. These programs differ in the following ways:

■ Hours and Quantities allows entry of different types of hours worked, in addition to quantities.

■ Super Backflush allows entry of quantities only.

■ Hours and Quantities runs in batch mode. After you enter hours and quantities, you can review and revise these hours and quantities until you update the work order routing.

■ You update Super Backflush quantities online.

You can enter completed and scrapped quantities by operation and employee. The system completes the work order if the last operation is defined as a pay point, or you can review and revise the transactions. However, quantities completed at a given operation cannot exceed the quantity completed at the preceding operation. For example, Super Backflush totals the entries for quantity completed and scrapped for the operation and compares that to the quantity at operation. If the total exceeds the quantity at operation, the system highlights the fields and displays an error message.

When you use Hours and Quantities entry, before the update process, the system verifies the quantity at operation as though the transactions were updated in the Work Order Routing table. The system uses the previously entered data to verify the

quantity at operation. This only occurs for data entered on the current day or previous to the current day.

You can set a processing option for the Super Backflush program to indicate whether the system verifies, for a given operation, that the total quantity completed plus scrapped does not exceed the quantity at operation.

Before You Begin

Set the appropriate processing option to verify the total of the quantity completed plus scrapped does not exceed the Quantity at Operation for a given operation

To complete a work order using quantity at operation

On Hours and Quantities

Figure 19–13   Hours and Quantities screen

1. Complete the following fields:

    ■   Work Date

    ■   Shift

    ■   Order Number

    ■   Employee Number

    ■   Operation Number

    ■   Type Hours

    ■   Hours

    ■   Quantity Complete

2. Access the detail area.

Figure 19–14   Hours and Quantities screen
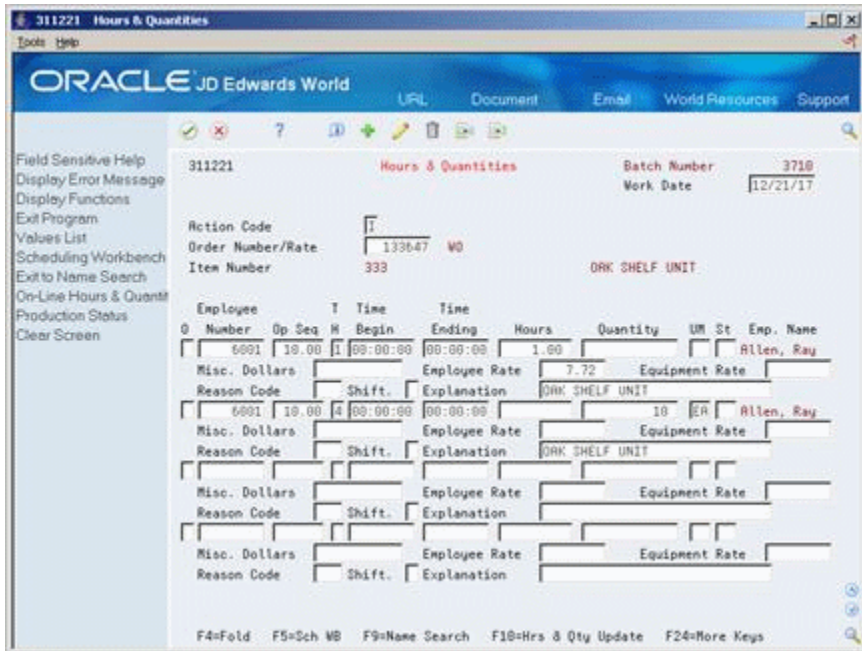
3. Review the following fields:

    ■   Miscellaneous Dollars

    ■   Reason Code

    ■   Employee Rate

The following graphic illustrates the system highlighted quantity when you enter a quantity that exceeds the Quantity at Operation:

Figure 19–15   Hours and Quantities screen (Quantity entered exceeds Quantity at Operation)
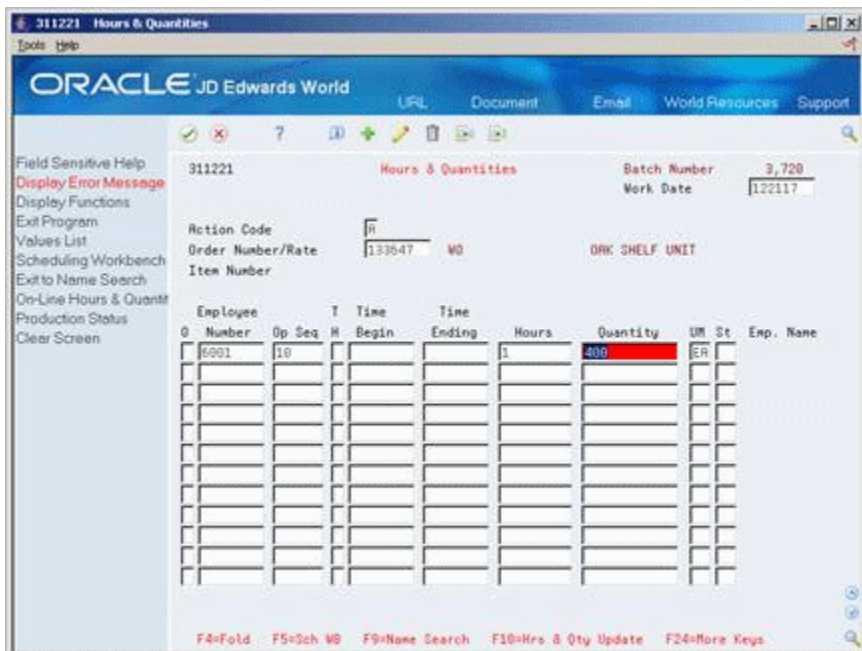
What You Should Know About

Topic	Description
Non-pay points	Super Backflush only allows entry for pay points. To handle non-pay points, Super Backflush considers the quantity at operation for a given operation to be the total of the quantity at that operation plus the quantity at operation for all previous non-pay points since the last pay point.
Import/Export	This program supports Import/Export Functionality. See *JD Edwards World Technical Foundation Guide* for more information.

Processing Options

See

19.7 Completing a Work Order with Serialized Components

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Reporting

From Daily Order Reporting - Discrete (G3112), choose Full Completion

When you record a completion for serialized assemblies, the system accesses the Associate Issued Item LSN's program. The associations form is only accessible if you are associating serial number controlled components to serial number assemblies. The system displays the pre-assigned serial numbers and any memo lot information.

By setting a processing option appropriately, you can use one of two display modes of the Associate Issued Item LSN's program:

- Associate components with a single assembly

- Display all components and associates to multiple LSNs

After you generate serial numbers for your work order, you associate your serialized components to a serialized assembly. To associate a serialized component to a serialized assembly, enter the associating quantity.

In addition, the Completion program allows you to enter a memo lot number that is used when both lot and serial numbers are required for tracking assemblies. The system verifies the memo lot number and serial number if you set the Serial Number Required field on the Item Branch/Plant Information form appropriately.

> **Caution:**
>
> If you set the appropriate processing options in the Completion program, the system allows you to complete multiple items using the same serial number.

What You Should Know About

Topic	Description
Completing non-serialized components	If you complete work orders with non-serialized components you cannot assign serial numbers to the assemblies at completion.

Topic	Description
Associating manufactured items with component items when inventory is issued	The association between manufactured items and their components can be made when issuing inventory. This is done by pressing F10 to bring up the Assign Serial Numbers program (P3105) from within the Inventory Issues program (P31113). After making a selection, the system establishes a pending association with a sequence number that will be used when the work order is completed.
	When completing the work order, ensure that the Single Format Associations window will be called by setting processing option 23 to blank on Full Completion (P31114). When completing the work order the associations will already have been made. After inquiring to view the associations, the 'pending' status will be changed to 'associated' when the screen is updated with C in the Action code.

To complete a work order with serialized components

On Full Completion

1. Complete the following fields to locate your order:

   ■ Order Number

   ■ Branch/Plant

2. Complete the following field to record a completed quantity:

   ■ Completed Quantity

Figure 19–16   Full Completion screen
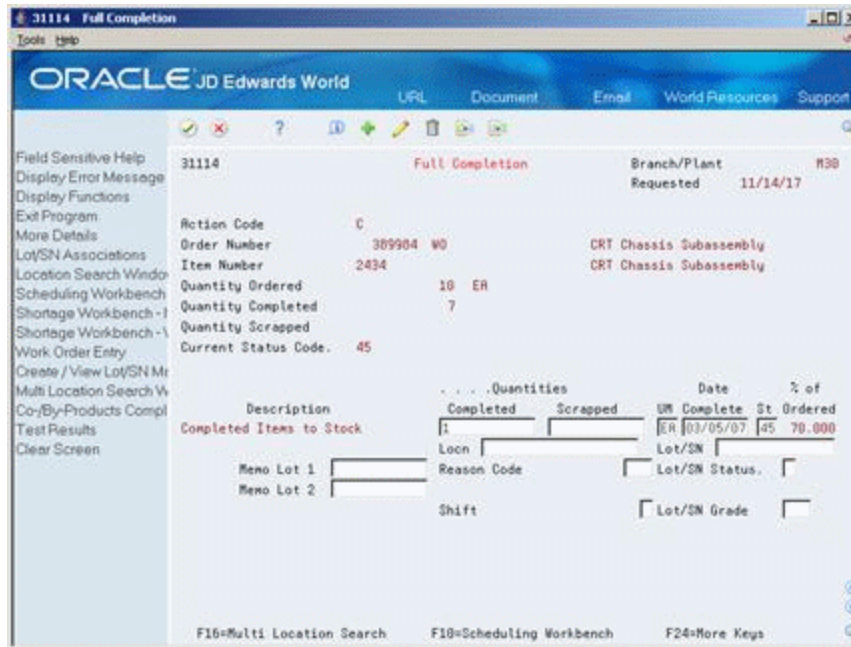
The system displays Serial Number Associations.

Figure 19–17   Serial Number Associations screen
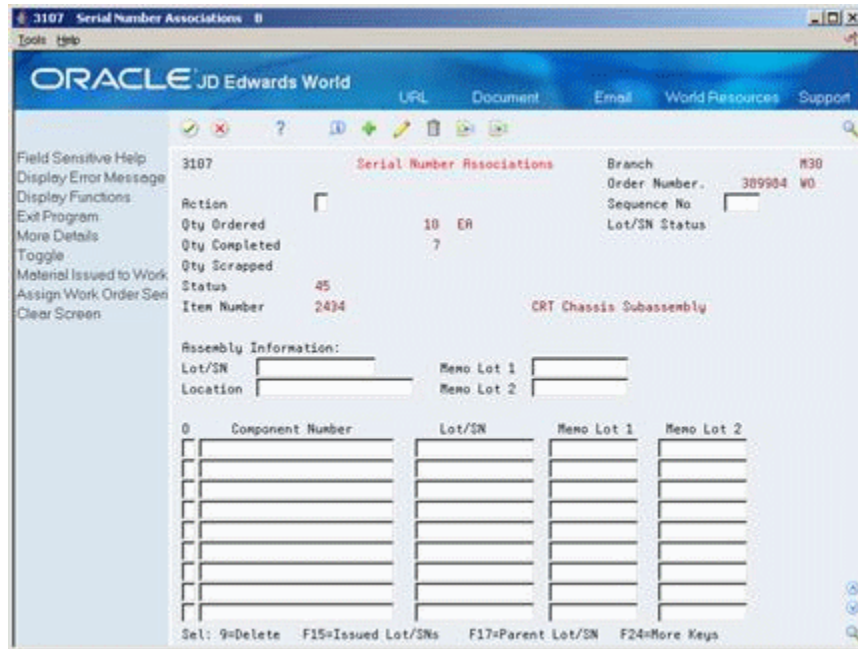
3. 3. Press F17 to select a Parent Lot/SN:

Figure 19–18   Assign Serial Numbers screen
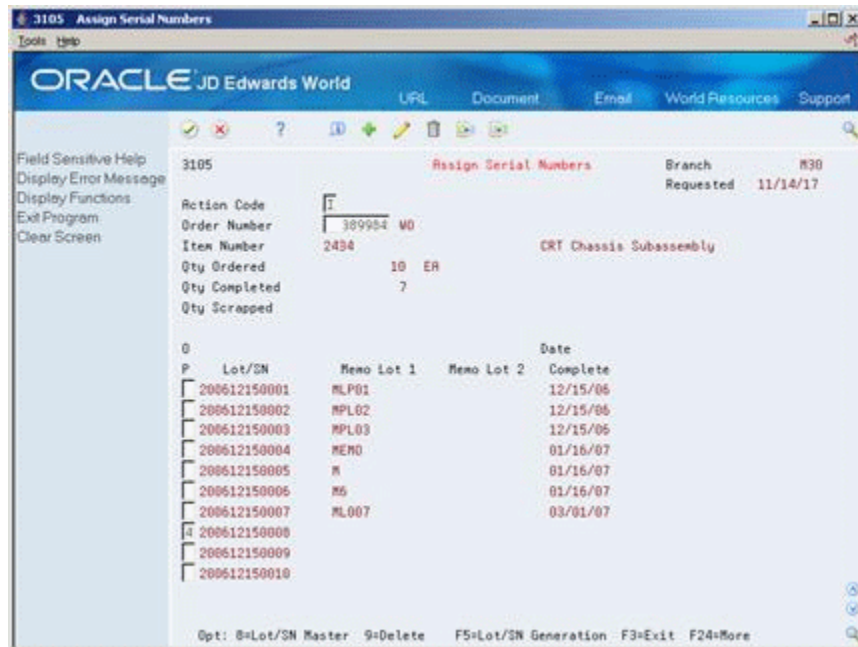
After a selection has been made the program returns to the Serial Number Associations window, populating the Assembly Information Lot/SN:

4. 4. Press F15 to select from Serialized Items Issued:

Figure 19–19 Serialized Items Issued screen
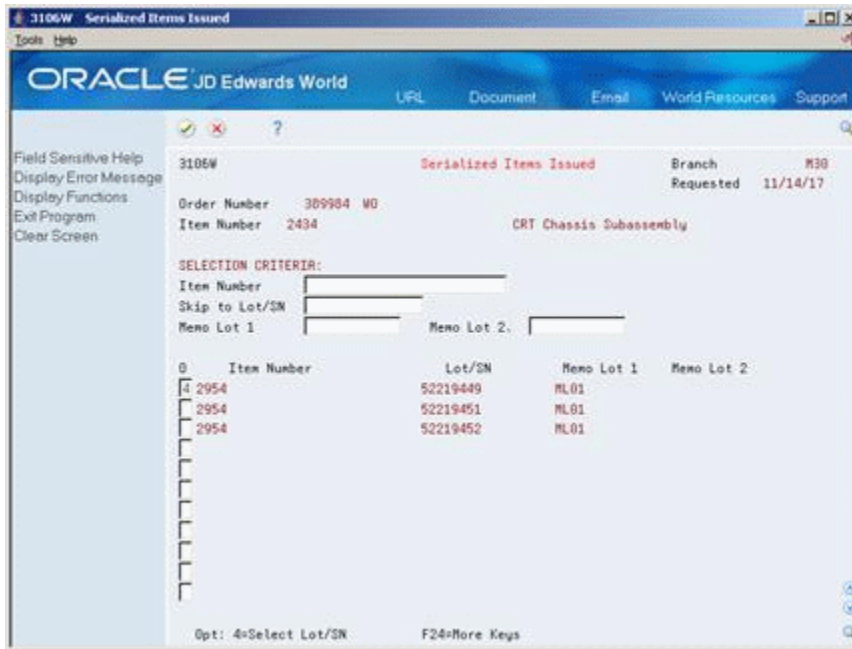
Pressing enter after making a selection returns to the Serial Number Associations window.

5. 5. Now that both Parent and Component Lot/SN Associations have been made, complete the following fields:

■ Enter A in the Action Code

■ Optionally enter Memo Lot 1 and Memo Lot 2

After pressing Enter the system will default in the next available sequence number.

Figure 19–20   Serial Number Associations screen
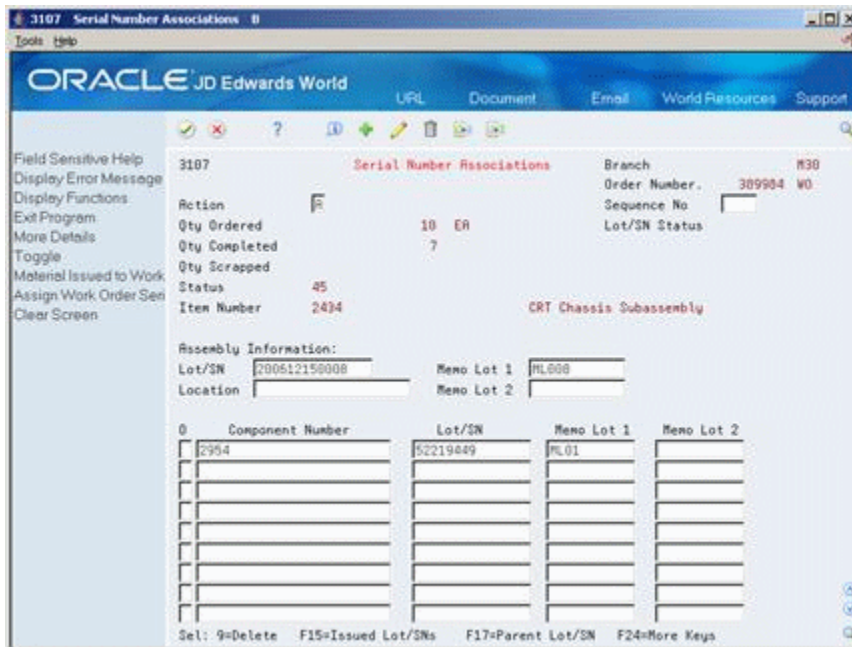
The Full Completion screen will be displayed:

Figure 19–21   Full Completion screen
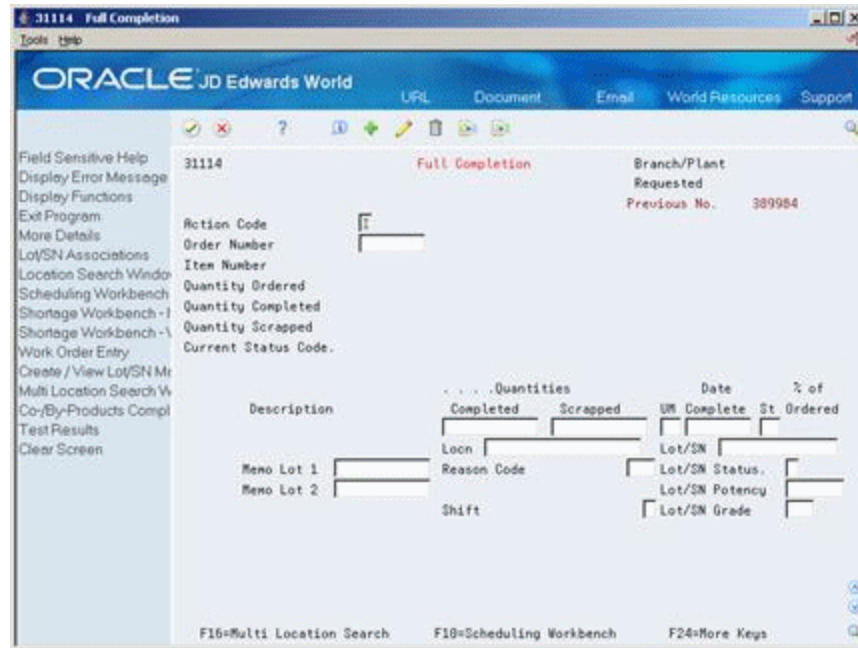
Field	Explanation
Lot/SN	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.
Memo Lot 1	A higher classification or grouping of serial number or lot processed items, maintained within the lot master (F4108).
Memo Lot 2	A higher classification or grouping of memo lot 1 maintained within the lot master (F4108).

19.8 Lot Status Processing at Work Order Completion

The following section details how Lot Status is handled during Full, First Partial and Subsequent Work Order Completions (P31114) when Lot Processing has been activated.

19.8.1 Full Completion/First Partial Completion:

If the Lot was entered on the Work Order Header during Work Order entry, the system will retrieve the Lot Number/Lot Status from the Lot Master file (F4108) and display it on the video V31114 (field LOTN) at the time of completion. The Lot Master record is created at the time the lot is entered on the Work Order Header.

If the Lot is blank (not entered at Work Order entry), the system will retrieve the Lot Status from Item Branch File (F4102) and display it.

The user can manually override the lot status with any valid value, including blank. The Completion program will use the Lot Status that is populated on the video at the time of completion to update or create:

■   Lot Master Revisions (F4108)

- Item Location (F41021)

- Item Ledger (F4111)

For manual override, the processing option on Super Backflush (P31123), must be set to call the Work Order Completion program (P31114).

19.8.2 Subsequent Completions:

The Completion program will display the Location and Lot from the previous completion as stored in the F4801. It will display the Lot Status from the Item Location File (F41021)

The user can manually override the lot status with any valid value, including blank. The Completion program will use the Lot Status that is populated on the video at the time of completion to update or create:

- Lot Master Revisions (F4108)

- Item Location (F41021)

- Item Ledger (F4111)

For manual override, the processing option on Super Backflush (P31123), must be set to call the Work Order Completion program (P31114).

The Lot Status on the video at the time the user presses enter, must be an allowed value as defined in processing option 7 on the Work Order Completion program (P31114).

20

Revise the Status of a Work Order

This chapter contains these topics:

You might want to remove from the system any work orders that are no longer active or that have been completed. In order to maintain records of the work orders and its progress, you should close the order before you delete it. This ensures that quantity information in the Inventory Management system and manufacturing accounting information is traceable after you delete the work order.

20.1 Revising the Status of a Work Order

You might want to remove from the system any work orders that are no longer active or that have been completed. In order to maintain records of the work orders and its progress, you should close the order before you delete it. This ensures that quantity information in the Inventory Management system and manufacturing accounting information is traceable after you delete the work order.

You can remove work orders that you no longer use in one of the following ways:

Method	Description
Change the status of work orders to "closed"	When you change the status of a work order to "closed", the system identifies the order as inactive, but does not delete it. This is the recommended way to de-activate a work order. This method enables you to keep complete historical records on the work order and its associated costing and accounting transactions.
Delete work orders	When you delete a work order, the order is removed from the system entirely. You should complete the work order before deleting it to ensure that manufacturing accounting and inventory information is updated. If you delete the work order before completing it, these records might not be in place.
	If the quantity completed on the work order is less than the quantity ordered, the system removes the remaining quantity from the Quantity on Work Order field in the Item Branch table (F4102) when you delete the order.

Method	Description
Purge work orders	When you purge work orders, the system deletes the orders based on their status code. You can choose to save the purged records in a separate file. Saving purged records lets you determine whether they contain information you want to retain after you delete the work order.
	You can also delete an Lot Serial Number master record when a work order for a serialized parent is purged.

What You Should Know About

Topic	Description
Reporting quantities	If an order is in process, JD Edwards World recommends that you report completed and scrapped quantities against it before you delete it.
Deleting an order	Before you can delete an order from the system, you must first delete the parts list and routing instructions attached to the work order.
	You cannot delete a work order if:
	■ The order number is used as a subledger number in the Account Ledger table (F0911).
	■ The work order is a parent order to other work orders.
	■ Parts have been issued to the work order.
	■ Labor has been reported against the work order.

20.2 Changing the Status of a Work Order to "Closed"

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Enter/Change Order

To close a work order without deleting it from the system, you change the status of the order.

To change the status of a work order to "closed"

On Enter/Change Order

Figure 20–1 Enter/Change Order screen

Complete the following fields:

- Order Number

- Status

Processing Options

See Section 35.1, "Manufacturing Work Order Entry (P48013)."

20.3 Purging a Work Order

Navigation

From Advanced Shop Floor Control, enter 27

From Advanced Shop Floor Control (G3131), choose Purge Orders

Work Order Purge is a DREAM Writer batch program that deletes selected work orders from your system. The system purges the selected work orders and their associated information from the following tables:

- Work Order Master (F4801)

- Work Order Instruction/Disposition (F4802)

- Shop Floor Control Parts List (F3111)

- Shop Floor Control Routing Instructions (F3112)

- Work Order Time Transactions (F31122)

  When you purge work orders, you can:

- Purge unlimited work orders based on their status codes

- Automatically delete associated parts lists and routings

- Save the work order information in a special purge file

Before You Begin

- Complete the accounting for the work orders you intend to purge before you purge them from the system. See Working with Work Orders in the *JD Edwards World Product Costing and Manufacturing Accounting Guide* for information on how to complete the accounting.

What You Should Know About

Topic	Description
Naming saved purged records	Set the processing options to save the records you purge in a special purge library. The system names this library JD Edwards World followed by the current system date (without separators). For example, if you purge the records on January 1, 1998, the purge library is named JDE010198. The system creates a physical file with the same name within that library. If you purge the same file multiple times on the same day, the system adds the purged records to the records already in the purge file for that day.
Reorganizing files	Set the processing options to reorganize your files after the purge is complete. Reorganizing the files redistributes the remaining data so that your disk space is more efficiently used. The files you want to reorganize cannot be in use elsewhere on your system, but must be exclusively allocated to the DREAM Writer job performing the purge.

If you submitted a DREAM Writer version of the purge program using a logical file build rather than OPNQRYF, the logical file built over the purged file is included in the reorganization. This might increase the time required to perform the file reorganization. |
| **Using OPNQRYF** | If you use OPNQRYF to select records to be purged, you must specify at least one field in data sequencing and set the Delete field in additional parameters to Y for the DREAM Writer version that you use. |

Processing Options

See Purge Movement Information (P4600P) in the *JD Edwards World Advanced Warehouse Management Guide.*

21

Enter Rates

This chapter contains the topic:

-

21.1 Entering Rates

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Enter/Change Rate Schedule

Repetitive manufacturing is designed for items that you produce in a continuous process on a dedicated production line. A rate schedule is a request to complete a given quantity of an item over a period of time on a specific production line.

Rate schedules consist of a header, parts list, and routing instructions. The rate header specifies the quantity of the item requested, the required date, and the production line. The parts list and routing instructions specify the parts, operations, and resources required to complete the rate.

Use the Enter/Change Rate Schedule program to add a rate schedule. When you add a rate, the system verifies:

- Line against the Line/Item Relationship Master
- Dates against the appropriate shop floor calendar
- Effective date ranges against the defined period

Before You Begin

- Set up the processing options to automatically attach the parts list and routing when you enter a rate

To enter rates

On Enter/Change Rate Schedule

Figure 21–1   Enter/Change Rate Schedule screen
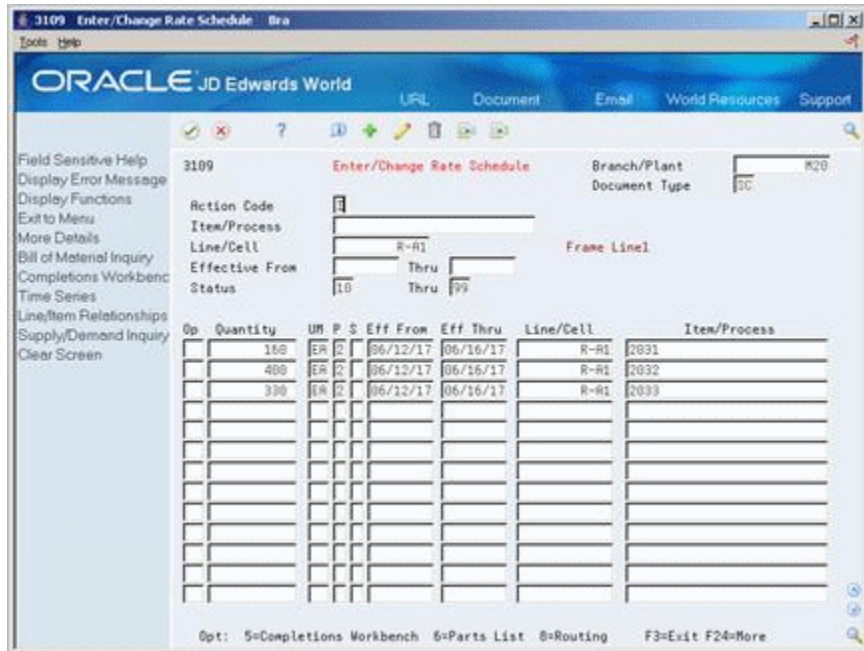
1. Complete the following fields:

   - Item Number

   - Branch/Plant

   - Rate Quantity

   - Effective From

   - Effective Through

   - Line

2. Complete the following optional fields:

   - Period

   - Shift

3. Access the detail area.

Figure 21–2 Enter/Change Rate Schedule screen (Detail area)
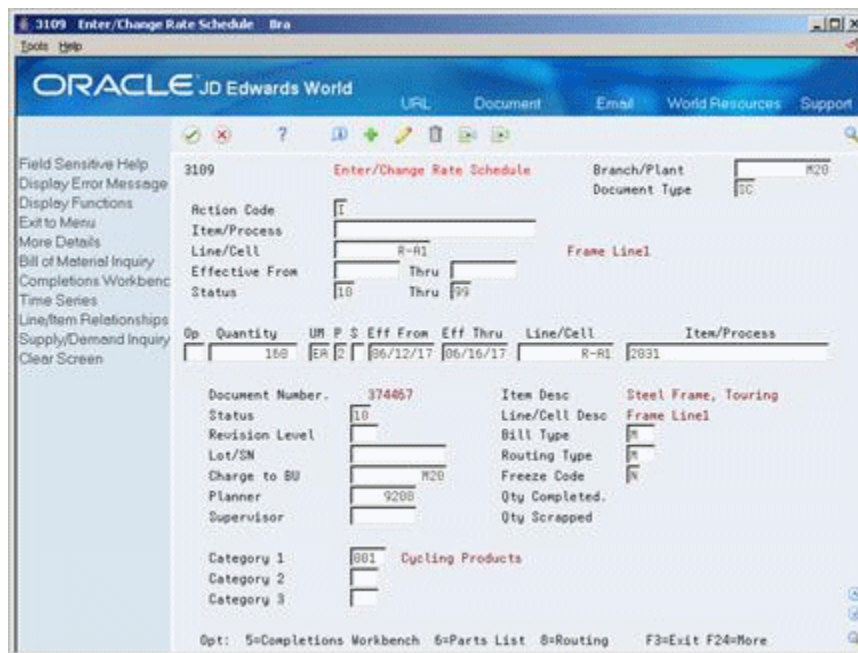
4. Complete the following optional fields and press Enter:

-   Status

-   Freeze Code

-   Category 1

-   Category 2

-   Category 3

-   Bill Type

-   Routing Type

Field	Explanation
Line/Cell Identifier	Defines a production line or cell. Detailed work center operations can be defined inside the line or cell.
Units - Order/Transaction Quantity	The quantity of units affected by this transaction.
Month/Week/Day/Shift	A code that determines the frequency of the schedule. Valid codes are: 1 – Monthly 2 – Weekly 3 – Daily 4 – Per Shift (for future use)

Field	Explanation
Shift Code	A user defined code (00/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.
	For payroll and time entry:
	If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.
	If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.
Status	A user defined code (00/SS) that describes the status of a work order or engineering change order. Any status change from 90 thru 99 automatically updates the date completed.
Freeze Code	A code that indicates if the order is frozen. MPS/MRP will not plan for frozen orders.
	Valid codes are:
	Y – Yes, freeze the order
	N – No, do not freeze the order (Default)
Category 1	A user defined code (00/W1) that indicates the current stage or phase of development for a work order. You can assign a work order to only one phase code at a time.
	Note: Certain forms contain a processing option that allows you to enter a default value for this field. If you enter a default value on a form for which you have set this processing option, the system displays the value in the appropriate fields on any work orders that you create. The system also displays the value on the Project Setup form. You can either accept or override the default value.
Category 2	User defined code system 00, type W2, which indicates the type or category of a work order.
	Note: A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work orders you create on those forms and on the Project Setup form. (You can either accept or override the default value.)
Category 3	User defined code system 00, type W3, which indicates the type or category of a work order.
	Note: A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work orders you create on those forms and on the Project Setup form. (You can either accept or override the default value.)

Field	Explanation
Bill Type	A user defined code (system 40, type TB), that designates the type of bill of material. You can define different types of bills of material for different uses. For example:
	M – (Default) Standard manufacturing bill
	RWK – Rework bill
	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 know 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 control, product costing, and MRP processing.
Routing Type	User defined code (system 40, type TR) that designates the type of routing. You can define different types of routing instructions for different uses.
	For example:
	M – Standard Manufacturing Routing
	RWK – Rework Routing
	RSH – Rush Routing
	You define the routing type on the work order header. The specific type of routing defined will then be used in the work order routing.
	Product Costing and Capacity Planning systems use only M type routings.

What You Should Know About

Topic	Description
Production lines	To increase plant capacity, manufacturers run production lines for more than one shift, as well as run different lines of production on different days of the week. You specify these shifts and lines on the shop floor calendar.
	You can identify up to six shifts for the production line using Manufacturing Constants, then identify all shifts for the production line by work center. After you set up the shift and line calendars, the Line Scheduling Workbench and Line Sequencing Workbench use these calendars to schedule production accordingly.
	See Section 34.3, "Setting Up the Shop Floor Calendar."
Line/item relationship	Before you enter a rate, you can create a relationship between a line and an item.
	See Section 34.8, "Setting Up Line and Item Relationships."

See Also:

- Chapter 4, "Create Work Orders" for information about attaching the parts list and routing instructions interactively.

Processing Options

See Section 36.1, "Enter/Change Rate Schedule (P3109)."

22

Process Kanbans

This chapter contains these topics:

While the requirements for material is driven by demand, the movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories. One program with two screen formats manage the electronically implemented kanbans.

22.1 Overview

Use the consumption program to access kanbans at a consuming location, and the supply program to access kanbans at a supplying location, by specifying one or any two of the following criteria:

- Item

- Location

- Supplier

- Kanban identification

  You process kanbans in one of two modes:

- One-Phase

- Two-Phase

22.1.1 One-Phase

One-phase assumes the completion and transfer to the consuming location are performed in one step, in which you complete the quantity directly to the consuming location and change the kanban status to checked-in (1).

22.1.2 Two-Phase

Two-phase assumes the completion and transfer are performed separately. You complete the quantity to the supplying location and change the kanban status to completed (3). After the quantity has physically been received at the consuming

location, a transfer from the supplying location to the consuming location occurs and the kanban status is changed to checked-in (1).

If you check in a kanban quantity from the supplier, the system can initiate a receipt transaction if the kanban master flag is on.

You can process kanbans for items that are:

- Inventoried
- Manufactured (sub-assemblies/phantoms)
- Externally supplied

22.1.2.1 Inventoried Items Processing

When you check out a kanban that is inventoried, the kanban status is changed. The supplying location replenishes the kanban quantity. You then complete and check in the kanban, which results in an inventory transfer transaction.

22.1.2.2 Manufactured Processing

When you check out a kanban that is manufactured, the program either creates a work order, or looks for an existing rate. It bases its action on the items' order policy code. (If the system does not find a rate, it creates one.) When the system creates a rate, it automatically attaches the parts list and routing. When you check in the kanban, you complete the work order or rate, issue parts, enter hours and quantities, and transfer the parent item to the consuming location.

22.1.2.3 Manufactured Processing - Phantom Item

When you check out a kanban supplied by a work center/production line, and the item is a phantom, no transactions outside of inventory transfers occur. There are no work orders or rates to process; the item is simply replenished by the producing line and the kanban is completed and checked in. This results in an inventory transfer transaction, from the supplying location to the consuming location.

22.1.2.4 Externally Supplied Processing

When you check out kanbans from an external supplier, the system may create a new purchase order, or use an existing one. However, there must be an open purchase order for the item. In addition, when you check out the kanban, the system may also initiate an Electronic Data Interchange (EDI) transaction. When you check in kanbans from an external supplier, the system may optionally perform a receipt against the purchase order.

22.2 Processing Kanban Consumption by Item

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Kanban Consumption

Kanban Consumption allows you to access all kanbans at a given consuming location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a consuming location:

- Checked-in (1)
- Checked-out (2)
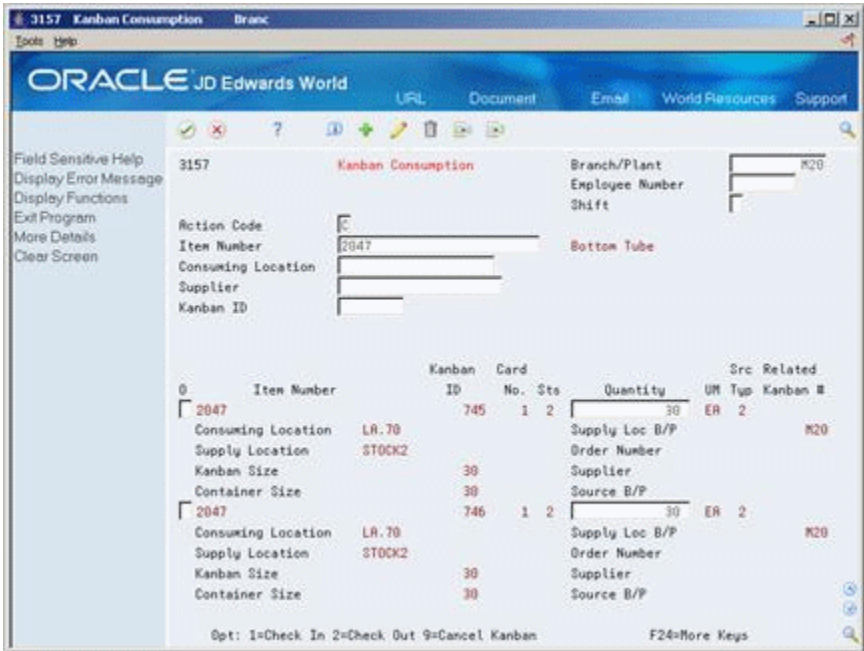
To process kanban consumption by item

On Kanban Consumption

Figure 22–1   Kanban Consumption screen

1. Complete the following fields:
   - Item Number
   - Branch/Plant
2. Access the detail area.

Figure 22–2   Kanban Consumption screen (Detail area)

3. To check in the item, enter a 1 in the following field next to the item number:

   ■ Option

   ■ Quantity may also be modified

4. Complete the following fields if checking in a kanban that was supplied by the production line which included the creation of a rate or work order:

   ■ Employee Number

   ■ Shift

5. To check out the item, enter a 2 in the following field next to the item number:

   ■ Option

Processing Options

See Section 36.11, "Kanban Consumption/Supply (P3157)."

22.3 Processing Kanban Supply by Item

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Kanban Supply

Kanban Supply allows you to access all kanbans that need replenishment for items stored or produced at a given supplying location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a supplying location:

■ Checked-in (1)

■ Completed (3)

   Inventory and statuses are affected as follows:

■ One-phase - inventory is immediately received and available at the consuming location, and the status is changed to checked-in (1).

■ Two-phase - the completion and transfer are reported separately:

   – The quantity is completed to the supplying location, the kanban status is changed to a complete (3).

   – After the quantity has physically been received at the consuming location, a transfer is performed from the supply location to the consuming location and the kanban status is changed to checked-in (1).

To process kanban supply by item

On Kanban Supply

Figure 22–3 Kanban Supply screen
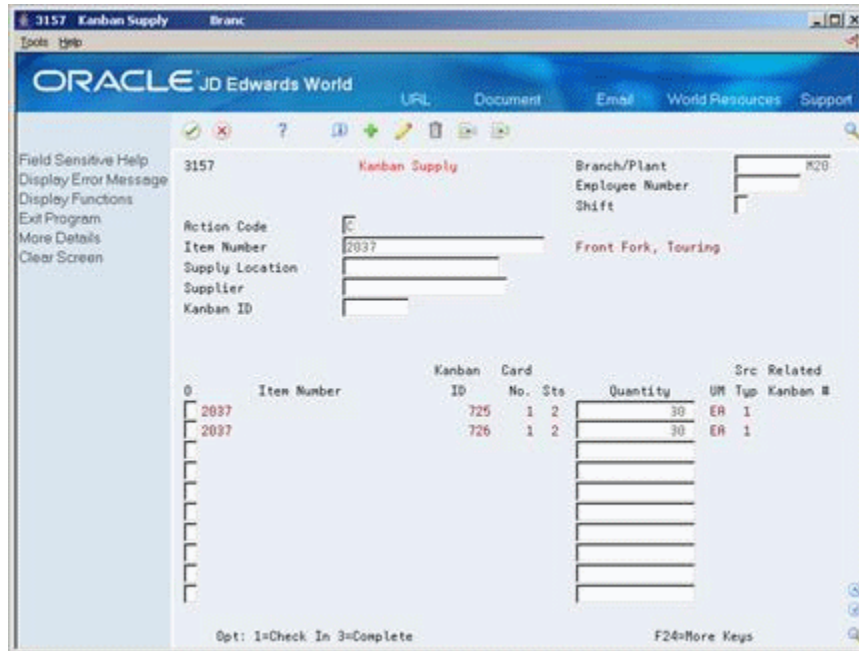
1. Complete the following fields:

   ■ Item Number

   ■ Branch/Plant

2. Access the detail area.

Figure 22–4 Kanban Supply screen (Detail area)
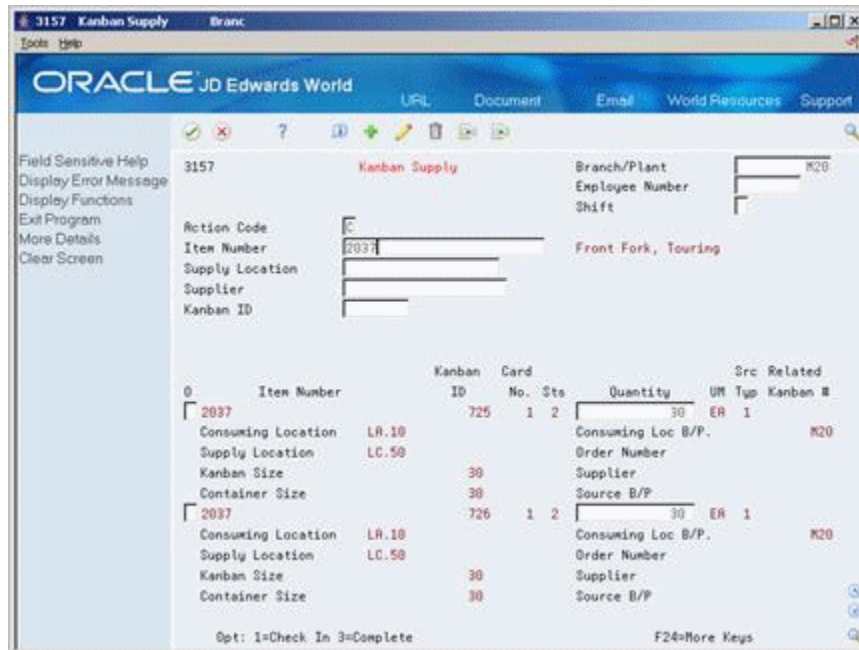
3. To check in the item, enter a 1 in the following field next to the item number:

   ■ Option

- Quantity may also be modified

4. Complete the following fields if checking in a kanban that was supplied by the production line which included the creation of a rate or work order:

   - Employee Number

   - Shift

5. To complete the item, enter a 3 in the following field next to the item number:

   - Option

   - Quantity may also be modified

To cancel a kanban

On Kanban Consumption

Figure 22–5   Kanban Consumption screen
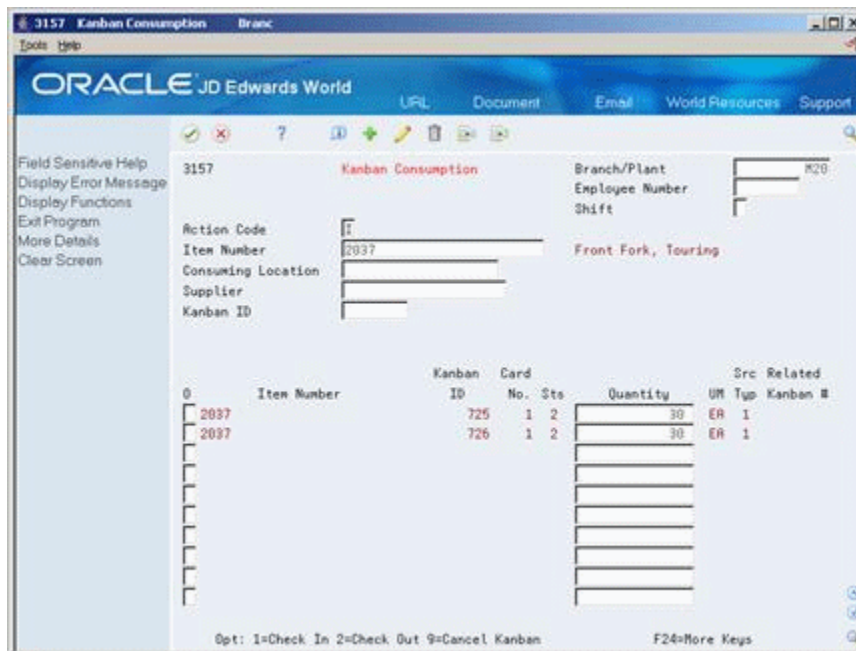
1. Complete the following fields:

   - Item Number

   - Branch/Plant

   - Kanban ID (optional)

2. Press Enter.

3. Enter a 9 in the following field next to the item number:

   - Option

4. Press Enter to display a confirmation message.

5. Enter a Y in the field next to the confirmation message:

Processing Options

See Section 36.11, "Kanban Consumption/Supply (P3157)."

22.4 Processing Kanban Status Override

Navigation

From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Kanban Status Override

Should you find that a kanban card is not at the correct status, you can bypass normal kanban processing and change the status using the Kanban Status Override program (P3163). This will only update the status on the kanban and not perform any associated processing. This program has been placed on an advanced menu since it should only be used for remedial purposes by authorized users.

If all kanban card records are updated to the same status, the program will also update the status on the Kanban Master record.

To process kanban status overrides

On Kanban Status Override

Figure 22–6   Kanban Status Override screen
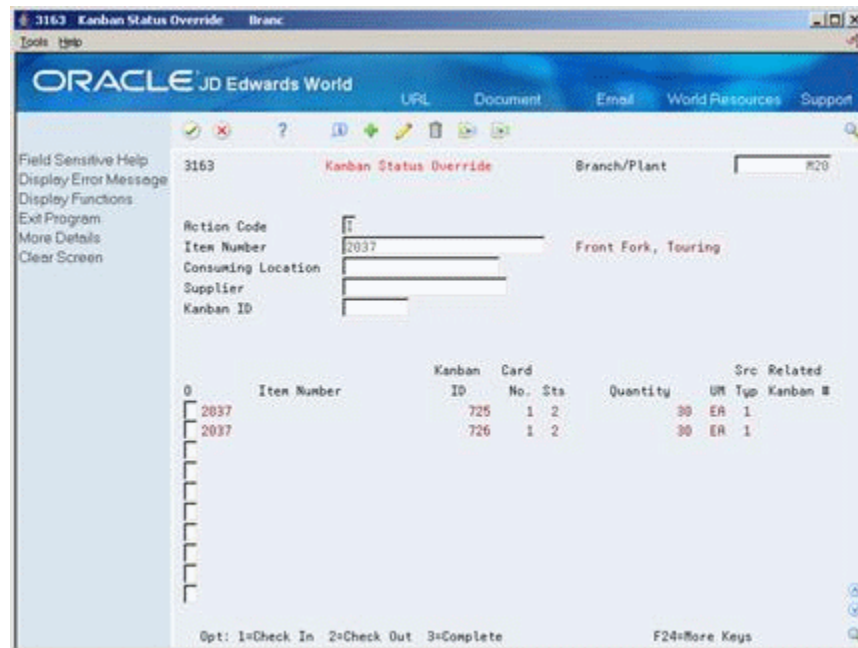
1. Complete the following field:

   ■ Option

   You can use the processing options to control which status codes the program is allowed to update.

Processing Options

See Section 36.12, "Kanban Status Override (P3163)."

23

Review Information for Discrete Manufacturing

This chapter contains these topics:

- Section 23.1, "Reviewing Material Information,"
- Section 23.2, "Reviewing Item Ledger Information,"
- Section 23.3, "Reviewing Work Order Status,"
- Section 23.4, "Reviewing Parts List Comparison."

You can review information for components, such as useability, availability, or supply and demand. You can review all item transactions in the system. And, you can review all work orders that make up the load at a particular work center. Also, you can view the components and quantities of two parts lists or view only the differences.

See Also:

- Section 14.3, "Reviewing Availability,"
- Section 14.1, "Reviewing Availability and Shortages,"
- Section 14.4, "Managing Shortage Information,"
- Section 17.6, "Reviewing Hours and Quantities Transactions."

23.1 Reviewing Material Information

You can choose from three different programs to review information:

- Component Useability
- Summary Availability
- Supply/Demand

Use the Component Useability program to display the quantity of a parent item that can be produced based on the component quantity. The system adjusts the production quantity in relation to the component quantity. This is useful in determining what can be produced based on component material on hand. You can restrict the data that is displayed to a specific lot, grade, or potency of the item.

Use the Summary Availability program to check the availability of an item in your branches or plants. You can display the date in detail or summary mode, and for one branch or all of your branches.

Processing options allow you to omit item records that have a zero quantity available and control which versions of associated programs are used when you access them. In addition, you can use the processing options and certain fields to display availability by grade or potency ranges.

Use the Supply/Demand program to show the demand, supply, and available quantities for an item in your inventory. You can access other forms to confirm detail information on work orders, parts lists, purchase orders, and sales orders. The information is interactively displayed from Purchase Order Management (system 42), Shop Floor Control (system 31), and Sales Order Management (system 43).

Use the processing options in this program to:

- Include both supply and demand planned orders from the MPS/MRP/DRM Message table (F3411).

- Include forecast demand from the Forecast table (F3460).

- Display an Available to Promise line that calculates the units available for sale or distribution before the arrival of future supplies.

- Display a Cumulative Available to Promise line that calculates the running total of Available to Promise.

- Specify which version of associated DREAM Writer programs are used when you access the programs. You should use the same program version for each Distribution Requirements Planning generation you run to ensure that your data is consistent between systems.

- Set up different versions of inclusion rules to include the document type, line type, and status of each purchase order, sales order, or work order. This program's processing option for the Supply/Demand Inclusion Rules must contain a valid version of inclusion rules from the MPS/MRP Resource Rules table (F34004). You should set this option to use the same version that you use in your Distribution Requirements Planning generation in order to facilitate tracking among the systems.

Reviewing material information consists of:

- Reviewing component useability

- Reviewing summary availability

- Reviewing supply and demand information

- Printing supply and demand

Before You Begin

- Set up the Part Useability selection from the processing options before you review component useability

To review component useability

Navigation
From Shop Floor Management (G31), choose Daily Order Preparation - Discrete

From Daily Order Preparation - Discrete (G3111), choose Component Useability

On Component Useability

Figure 23–1   Component Useability screen

1. Complete the following fields:

    ■   Component

    ■   Quantity

    The following fields display component information:

    ■   Item Number

    ■   Production Quantity

2. Access the detail area.

Figure 23–2 Component Useability screen (Detail area)
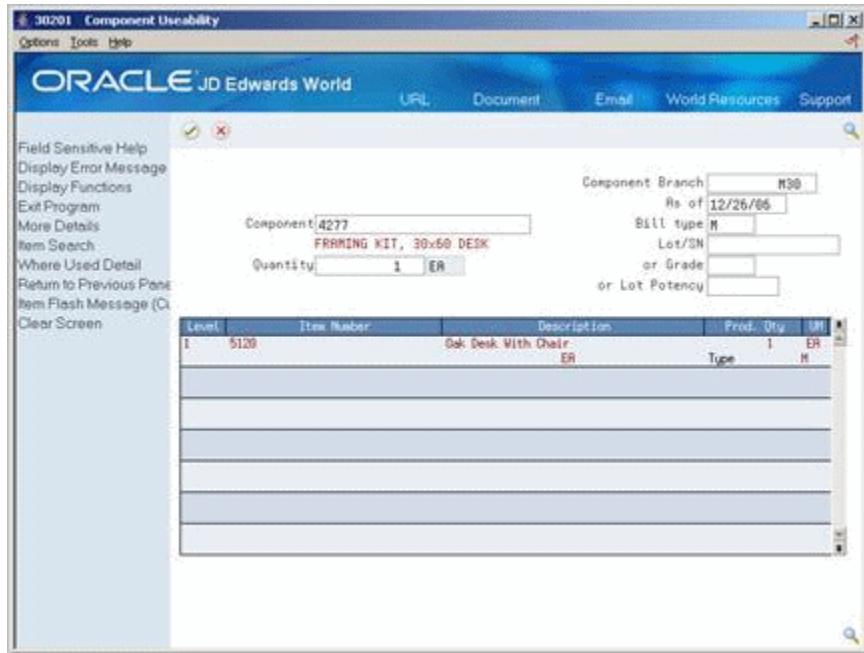
The following fields display component information:

- Batch Quantity

- Type

Field	Explanation
2nd Item Number	The system provides three separate item numbers plus an extensive cross-reference capability to alternate item numbers. These item numbers are:
	1. Item Number (short) - An 8-digit, computer-assigned item number.
	2. 2nd Item Number - The 25-digit, free-form, user defined, alphanumeric item number.
	3. 3rd Item Number - Another 25-digit, free-form, user defined, alphanumeric item number.
	In addition to these three basic item numbers, an extensive cross-reference search capability has been provided (see XRT). Numerous cross-references to alternate part numbers can be user defined (for example, substitute item numbers, replacements, bar codes, customer numbers, or supplier numbers).

To review summary availability

Navigation

From Shop Floor Management (G31), choose Daily Order Preparation - Discrete

From Daily Order Preparation - Discrete (G3111), choose Summary Availability

On Summary Availability

Figure 23–3   Summary Availability screen
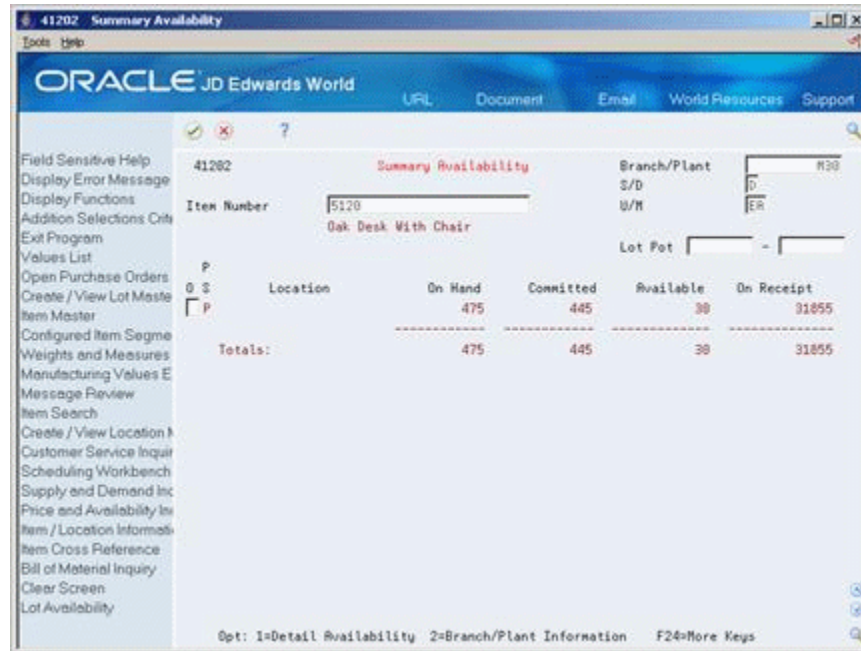
Complete the following field:

■   Item Number

The following fields display item information:

■   Primary/Secondary Storage Location

■   Location

■   On Hand

■   Committed

■   Available

■   On Receipt

Field	Explanation
P S	A value that indicates if this is the primary or secondary location for this item within this stocking location. Valid values are: P – Primary storage location S – Secondary storage location **Note:** You can only have one storage area within each branch or warehouse marked as primary. In some cases, the system uses the primary storage area as the default.
Totals:	The total quantity committed to a specific location. The total is calculated from the following fields: ■ Soft Committed to Sales Orders ■ Hard Committed to Sales Orders ■ Soft Committed to Work Orders ■ Hard Committed to Work Orders

Field	Explanation
On Receipt	The total number of items on receipt for a specific location. The total is based on the total number of items entered in the Quantity on Purchase Order Receipts and the Quantity on Work Order Receipt fields.

To review supply and demand information

Navigation

From Shop Floor Management (G31), choose Daily Order Preparation - Discrete

From Daily Order Preparation - Discrete (G3111), choose Supply/Demand Inquiry

On Supply/Demand Inquiry

Figure 23–4   Supply/Demand Inquiry screen
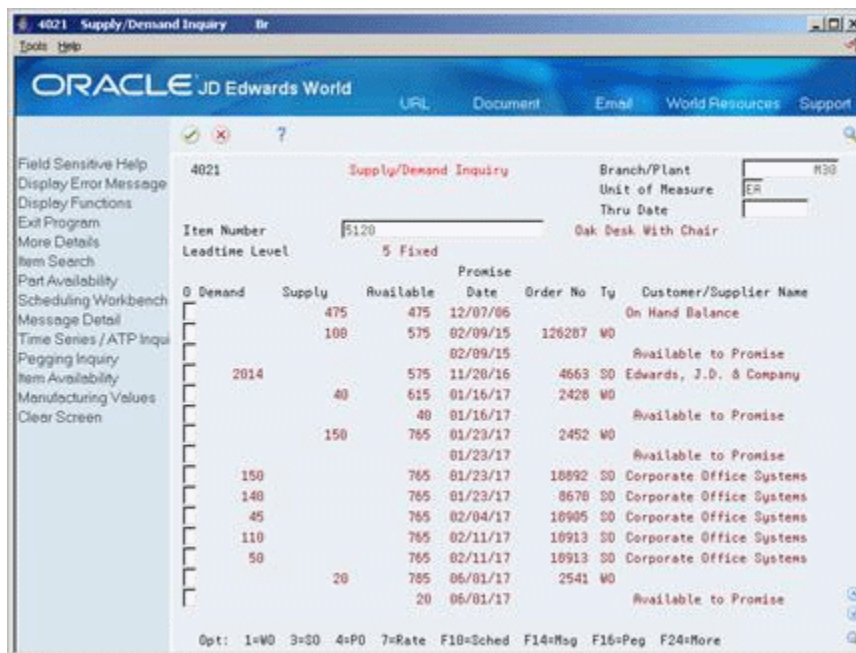
1. Complete the following fields:

    ■   Branch/Plant

    ■   Item Number

2. Access the detail area.

Figure 23–5 Supply/Demand Inquiry screen (Detail area)
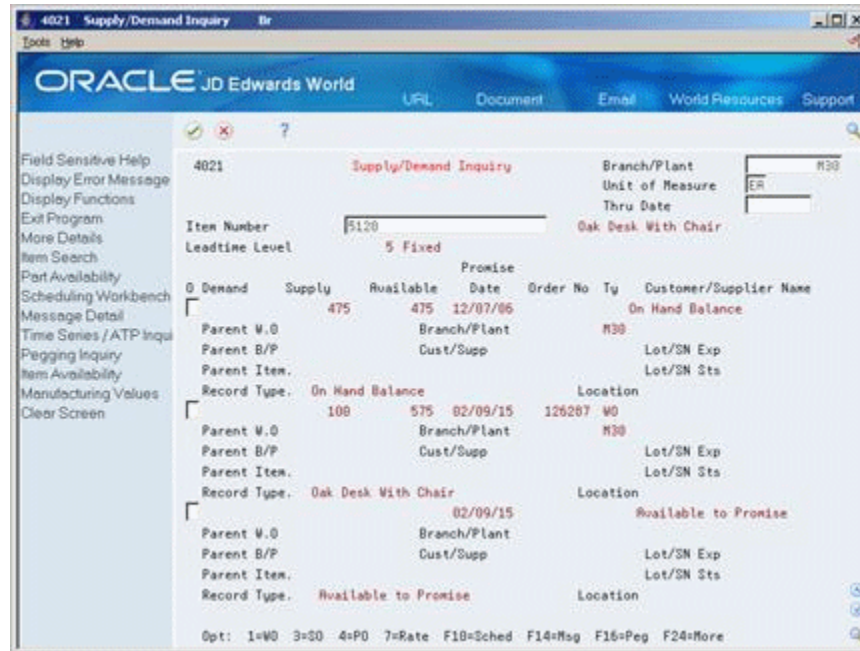
The following fields display item information:

- On Hand Balance
- Parent Work Order

What You Should Know About

Topic	Description
Demand quantities	The demand quantities are shown by date and can include safety stock, quantities on sales orders, work order parts lists, lower level planned order demand, and interplant and forecasted demand.
Supply quantities	The supply quantities are shown by date and can include on-hand inventory and quantities on purchase orders, manufacturing work orders, planned orders, and rate schedules. Supply quantities shown without a date or order information represent current availability by branch/plant storage location.

To print supply and demand

Navigation

From Shop Floor Management (G31), choose Periodic Functions - Discrete

From Periodic Functions - Discrete (G3121), choose Supply/Demand

The Supply and Demand report shows the supply, demand, and available quantities for an item. This report can include quantities of materials in:

- On-hand inventory
- Safety stock
- Sales orders

- Purchase orders

- Work orders

- MPS/MRP planned orders

- Forecasts

- Rate schedules

The information on this report and the processing options used to generate it are the same as on Supply/Demand Inquiry.

Figure 23–6   Supply and Demand report


```
4051                                    JD Edwards World                      Page    -        1
                                        Supply and Demand                     Date    -  3/15/18


   Item Number. . . 1001              Pen & Pencil Set                        Unit of Measure. .  EA

                                                                  Request
      Branch       Location        Lot      Demand    Supply  Available  Date   Order No Ty Description / Vendor Name
   ------------ -------------------- ------------ ------------ ----------- ----------- -------- -------- -- ------------------------
            10                                               769       769                      On Hand Balance
            10                                                         769                      Available to Promise
            10                                                 6        775 03/09/15    2004 OP JD Edwards World
            10                                                 4        779 03/09/15    2006 OP Vector Manufacturing Co
            10                                                          8 03/09/15                 Available to Promise
            10                                      1                  778 03/09/15    2048 SO Sales Order
            10                                      1                  777 03/09/15    2050 SO Sales Order
            10                                                10        787 03/10/15    2007 OP JD Edwards World
            10                                                 1        788 03/10/15    2008 OP Vector Manufacturing Co
            10                                                          11- 03/10/15               Available to Promise
            10                                     10                  778 03/10/15    2051 SO Sales Order
            10                                     10                  768 03/14/15    2053 SO Sales Order
            10                                      2                  766 03/14/15    2054 SO Sales Order
```

Processing Options

See Section 35.26, "Co-/By-Products Produced by Process (P30201)."

See Section 35.27, "Item Availability (P41202)."

See Section 35.28, "Supply & Demand (P4021)."

23.2 Reviewing Item Ledger Information

Navigation

From Shop Floor Control (G31), choose Discrete Periodic Functions

From Periodic Functions - Discrete (G3121), choose Item Ledger

Use the Item Ledger program to display a detailed history of the transactions that have occurred for an item. The transactions include:

- Inventory issues, adjustments, and transfers

- Sales posted after sales update

- Purchase receipts

- Manufacturing completions and issues

- Physical inventory updates

You can limit the date displayed by entering values in any of the header fields. You can toggle between transaction dates (running balance) and general ledger dates for items and set a default display in the processing options.

Because the dates in the item ledger and running balance might differ for an item, the values displayed might also differ.

Reviewing item ledger information includes the following tasks:

- Reviewing cost information
- Reviewing quantity information in running balance format
- Reviewing cost information in running balance format

What You Should Know About

Topic	Description
Using the running balance format	In the running balance format:
	■ You must enter a valid From date.
	■ The balance forward is a cumulative amount up to the From date you enter. The system retrieves the As Of records for the specified item, branch, location, and lot you enter. After the balance forward is calculated, the system displays item ledger records with a general ledger date from the From date forward, in ascending order.
	■ You can toggle between quantities and costs.
	■ Transactions resulting from manufacturing completions and issues do not display unless they have been processed through manufacturing accounting.
	If you have not run the As Of Generation program to create records in the Item As Of table (F41112), or a balance forward record does not exist for your item, it might take additional time to accumulate the item ledger records to create a balance forward.
	The system displays balance forward quantities in their primary unit of measure.

To review cost information

On Item Ledger (The CARDEX)

Figure 23–7   Item Ledger screen
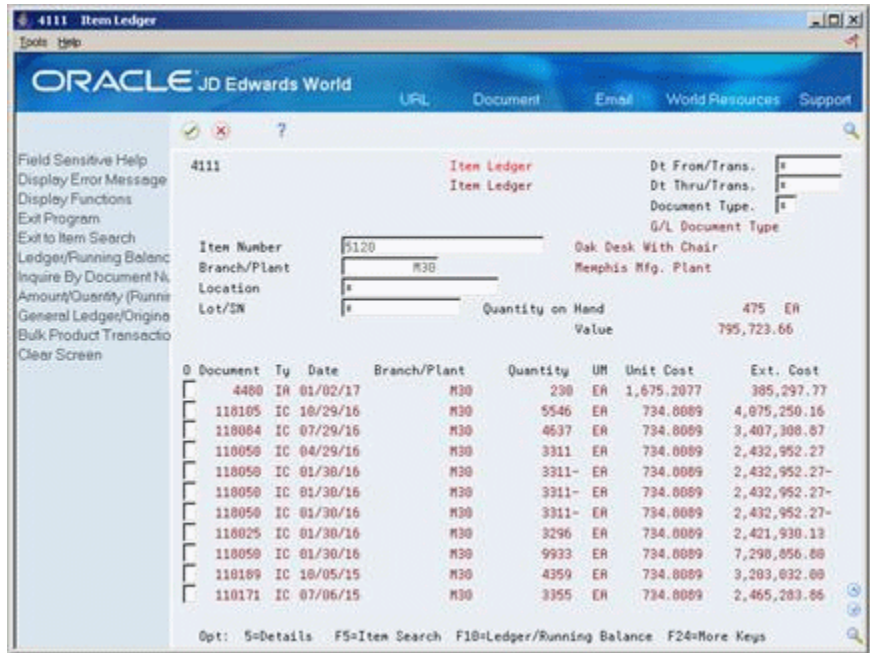
Complete the following fields:

■   Item Number

■   Branch/Plant

■   Location

■   Lot

■   Date From

■   Date Through

To review quantity information in running balance format

On Item Ledger (The CARDEX)

Change the format to Running Balance.

Figure 23–8   Item Ledger screen with Running Balance Format
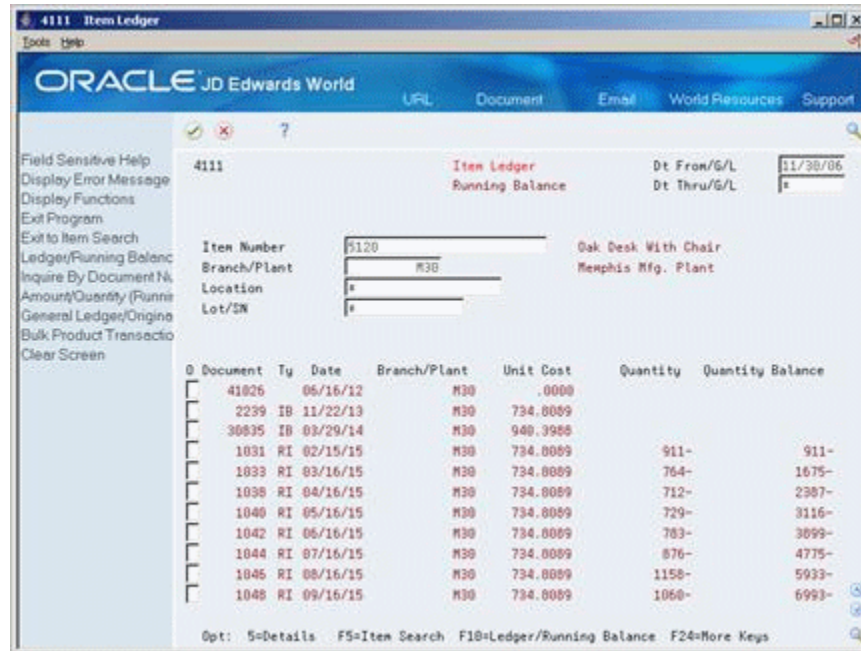
To review cost information in running balance format

On Item Ledger (The CARDEX)

Select the Amount/Quantity format.

Figure 23–9   Item Ledger screen with Amount/Quantity Format
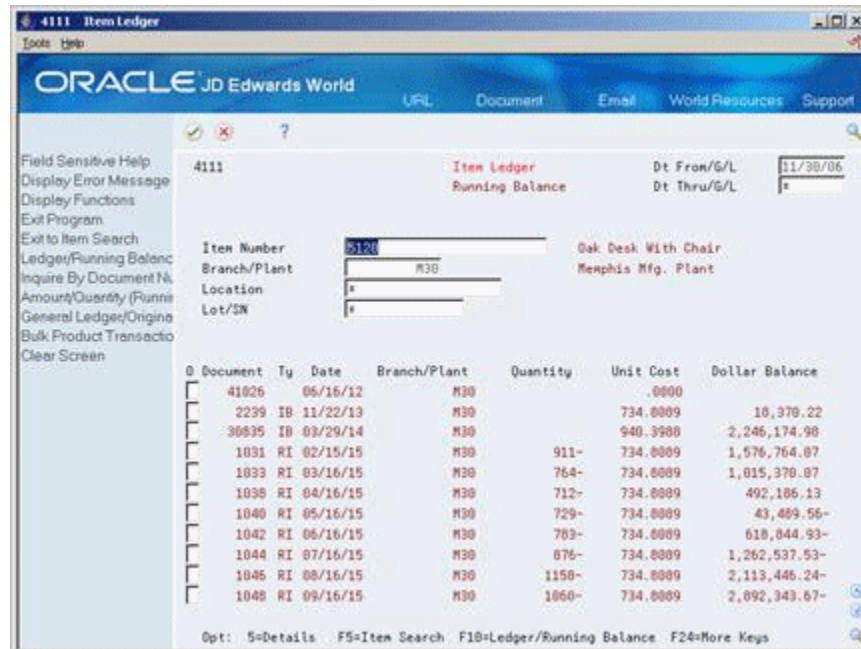
Processing Options

See Section 35.29, "Item Ledger - Costs (P4111)."

23.3 Reviewing Work Order Status

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Production Status

Use Production Status to view the status of all work orders by work center, production line, and item, within the status and date ranges. The system shows historical information as well as open orders.

From the Production Status form you can access the Production Transaction History form, where you can view a record for each entry of completions and scrap at an operation.

To review production status

On Production Status

Figure 23–10   Production Status screen
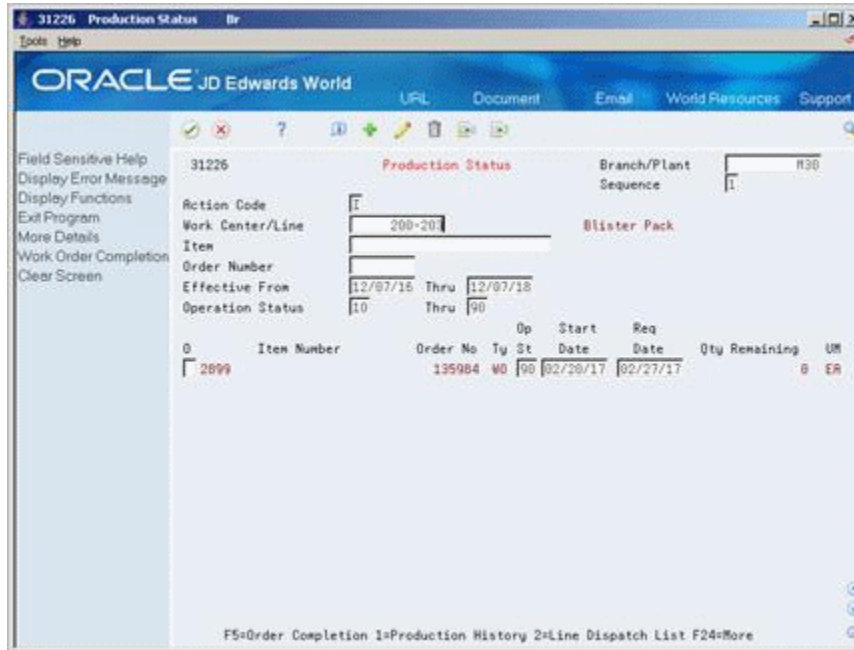
1. Complete the following fields:

   - Work Center/Line

   - Item Number

   - Branch/Plant

2. To view the various transactions reported against an order, choose Production History.

Figure 23–11 Production History screen
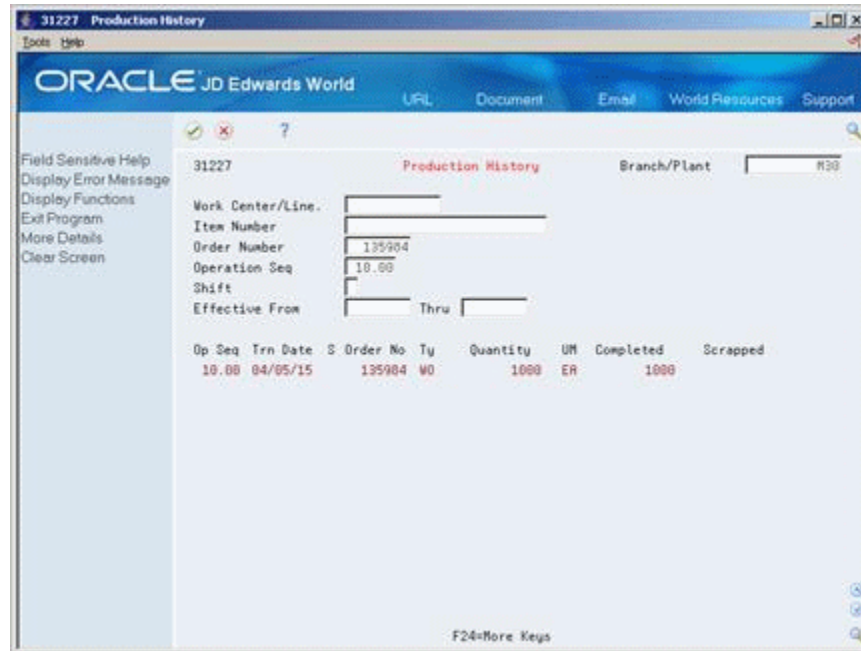
23.4 Reviewing Parts List Comparison

Navigation

From Shop Floor Control (G31), choose Discrete Daily Order Preparation

From Daily Order Preparation - Discrete (G3111), choose Parts List Comparison

Use Parts List Comparison to view the different items and quantities of two parts lists. You can display all items for the two parts lists or only the differences. In addition, you can limit displayed data to a specified work center or dispatch group.

Before You Begin

■ Attach the components to an operation on the routing to view these components

What You Should Know About

Topic	Description
Modes of display	This program has two modes of display you can use to locate information:
	1 = Display all components
	2 = Display only differences between the two parts lists
	If you leave the mode blank, the mode of display is the differences between the two parts lists.
Printing a report	Use the appropriate selection to print the parts list comparison in report form. Use the processing options to specify work orders, the mode to print, and a work center, a dispatch group, or both.

To review parts list comparison

On Parts List Comparison

Figure 23–12   Parts List Comparison screen
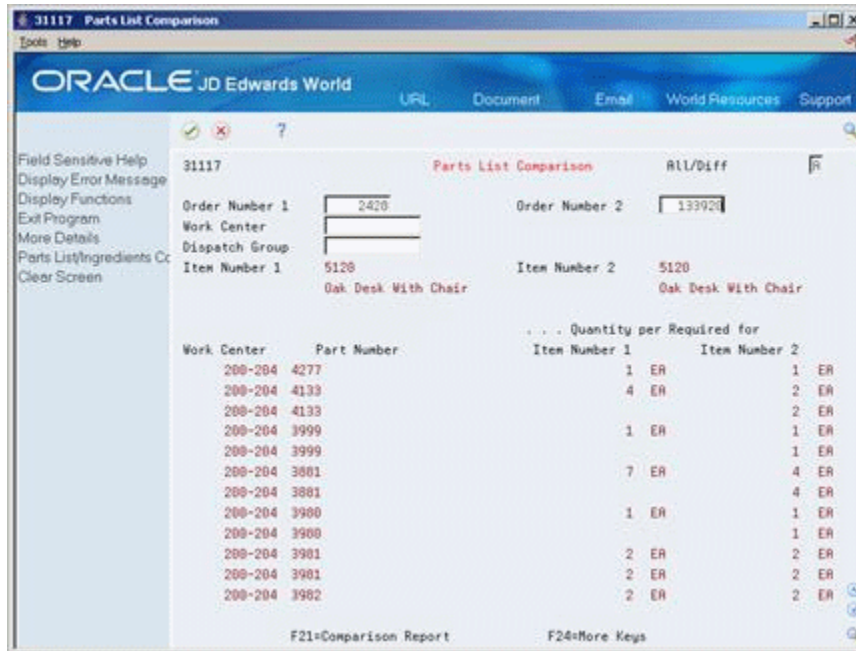
1. Complete the following fields to locate all components of your work orders:

   ■   Work Order 1

   ■   Work Order 2

2. Access the detail area.

Figure 23–13   Parts List Comparison screen (Detail area)
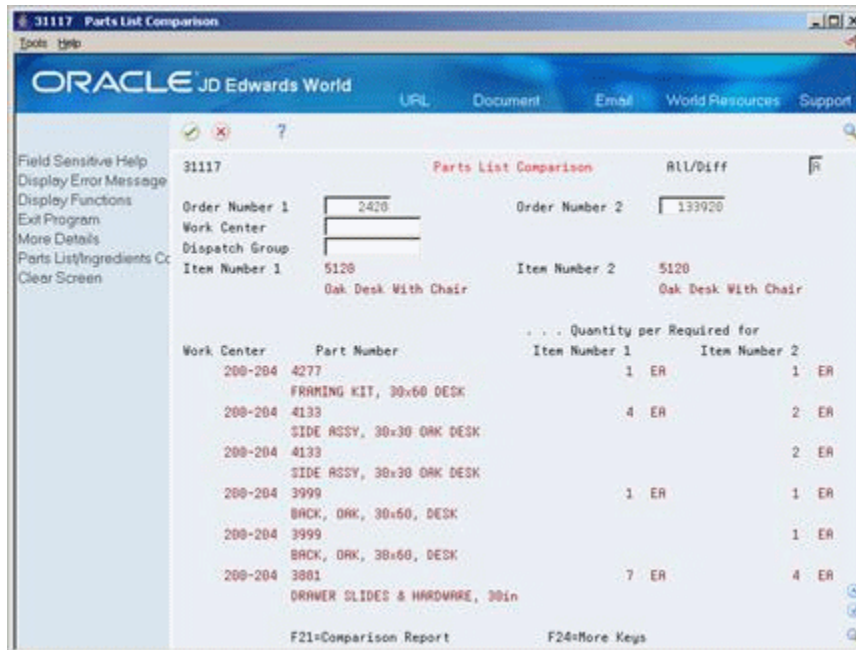
3. Review the part descriptions.

Processing Options

See Section 35.30, "Parts List Comparison (P31117)."

24

Print Material and Operation Reports

This chapter contains the topic:

- Section 24.1, "Printing Discrete Manufacturing Reports."

24.1 Printing Discrete Manufacturing Reports

Print discrete manufacturing reports to effectively manage your work order and rate schedule information. Two types of discrete manufacturing reports are available:

Type	Description
Materials reports	Work Order Summary
	Component Shortages
	All Shortages
	Supply and Demand
Operations reports	Dispatch List
	Hours and Quantities Proof

You can use discrete manufacturing reports to identify all:

- Work orders in your system

- Component parts that are required to complete a work order and its availability

- Item shortages

- Supply, demand, and available quantities for an item

The system uses information in the following tables to produce reports:

Table	Description
Work Order Summary	Work Order Master table (F4801)
All Shortages	Shortage Maintenance Master table (F3118)

What You Should Know About

Topic	Description
Kanban implementation	You can implement a kanban system to simplify inventory control in a discrete manufacturing environment as well as a repetitive manufacturing environment. See Section 29.1, "Processing Kanbans" for instructions on using kanbans.

See Also:

- Section 5.2.1, "Printing a Summary of Work Orders,"
- Section 14.5.1, "Printing Component Shortages,"
- Section 14.5.2, "Printing All Shortages,"
- Section 18.5, "Printing Scheduling Information for Work Centers,"
- "To print supply and demand"

Part II

Repetitive Manufacturing

This part contains these chapters:

25

Overview to Repetitive Manufacturing

This chapter contains these topics:

- Section 25.1, "Objectives,"
- Section 25.2, "About Repetitive Manufacturing."

25.1 Objectives

- To develop a workbench to schedule production
- To support production capacity and load using units per hour as well as hours per unit
- To define shop floor calendars by shift and production line
- To allow multiple replenishment points for a production line
- To allow electronic kanban control at consuming and supplying locations

25.2 About Repetitive Manufacturing

Repetitive manufacturing dedicates entire production lines to a family of products. These product families share similar components and routings. Generally these products are manufactured in a continuous process which requires less inventory movement to and from the production line. Work center setup and changeover times between related products are kept to a minimum.

Repetitive environments define production in terms of units per hour. The time spent at the operational level might or might not be important. Therefore, the ability to set up line capacity and define routings in units per hour is necessary. The fundamental basis for backscheduling and capacity planning is hours. To view information in units, the system uses a conversion factor defined at the work center level.

The driving force for repetitive manufacturing is demand. Scheduling production lines requires tools to schedule, sequence, and balance production based on the capacity for each production line.

While requirements for material is driven by demand, movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories.

Complete the following tasks:

- Enter rates
- Schedule rates

- Complete rates
- Review information
- Process kanbans
- Close rates

See Also:

- Single Facility Material Requirements Planning in the *JD Edwards World Manufacturing and Distribution Planning Guide* for information about Material Requirements Planning,

- Overview to the Electronic Commerce System in the *JD Edwards World Electronic Commerce Guide* for information about Electronic Data Interchange transactions,

- Overview to Purchase Order Entry in the *JD Edwards World Procurement Guide* for information about purchase orders.

26

Schedule Rates

This chapter contains these topics:

- Section 26.1, "Scheduling Rates,"
- Section 26.2, "Scheduling Items on a Production Line,"
- Section 26.3, "Sequencing Rates by Classification Scheme or Manually,"
- Section 26.4, "Reviewing Production Across Lines."

The driving force for repetitive manufacturing is demand. Scheduling production line requires tools to schedule, sequence, and balance production based on the capacity for each production line.

26.1 Scheduling Rates

What You Should Know About

Topic	Description
Quality Management test results	When you manage rate based information and complete quantities to inventory, you can access Test Results Entry for items that require testing.
	See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.

26.2 Scheduling Items on a Production Line

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

**From Daily Processing - Repetitive (G3115), choose Line Scheduling Workbench**

Use the Line Scheduling Workbench to schedule rates and work orders for the family of items produced on a production line. This workbench shows information about both firmed and planned rates and work orders, in daily buckets. After you manually manipulate the scheduled quantities, you can firm the schedule using a function key. Use start and through dates to show the work days for the production line within the date range. When you create a rate or work order, or the system creates a rate through planning, the system spreads the quantities evenly over the work days within the specified date range. From the workbench you can access:

- Alternate Line Selection

- Split Lines

- Production Status

- Item Availability

- Rate Master Schedule

    Use Split lines to move scheduled quantities from one line to another by:

- Splitting production among two lines, which may create a rate on the new line

- Consolidating production from two lines to one line

- Transferring production from one line to another

Use Alternate Line Selection to view all lines for which line/item relationships exist for the item.

To schedule items on a production line

On Line Scheduling Workbench

Figure 26–1   Line Scheduling Workbench screen

1. Complete the following fields:

    - Line

    - Branch/Plant

2. Complete the following optional fields:

    - Start Date

    - Through Date

3. Change any scheduled quantity as needed.

    If you change the total quantity and update the schedule, the system shows a soft error and then spreads the new quantity evenly across the date range. You must update the schedule using a function key before the system changes the record.

4. Enter a 2 next to the appropriate item.

Figure 26–2   Alternate Line Selection window
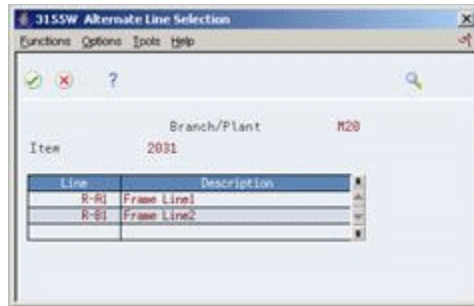
5. On Alternate Line Selection, review the following fields:

- Item

- Revision

6. Enter a 1 in the following field next to the appropriate line:

- Option

Figure 26–3   Split Lines window
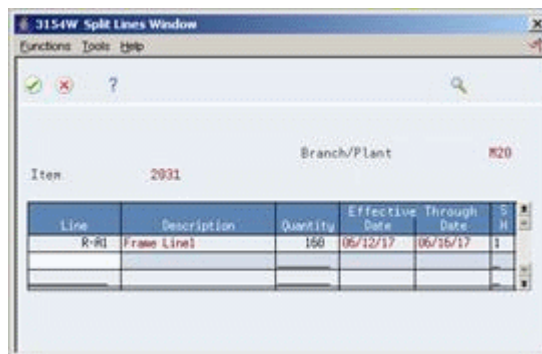
7. On Split Lines, complete the following fields to move scheduled quantities from one line to another:

- Line

- Quantity

- Shift

Processing Options

See Section 36.2, "Line Scheduling Workbench (P3153)."

26.3 Sequencing Rates by Classification Scheme or Manually

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Line Sequencing Workbench

Use the Line Sequencing Workbench to sequence the rates after you schedule production. This workbench only shows information about actual rates, in daily buckets. Set the processing options if you want the system to sequence quantities across shifts, or across both shifts and days. You must update the schedule using a function key before the system changes the record. You can sequence the rates, using function keys, by:

■ Category code

■ Sequence number

To sequence the rates by the items' category codes, you use a function key. (The category code values are determined by the setup in the processing options for the Enter/Change Rate Schedule.) Beginning with the first shift and day, you forward schedule the quantities, which consumes the available capacity. You use the processing options to control whether these quantities are pulled forward or pushed back in time across shifts only, or both shifts and days. This process places the scheduled quantities which exceed the capacity available, within the date range selected, in the last shift of the last day.

To sequence the rates by sequence number, you use a different function key. Again, beginning with the first shift and day, you forward schedule the quantities, which consumes the available capacity. When created, a new rate has an initial sequence number of all nines. This causes it to be sequenced last for the shift, therefore placing it after any previously sequenced rates. This default sequence may then be overridden manually, if desired. You do this by changing the sequence number value. After manipulating the sequence, you can update the schedule as is, or use the function key to forward schedule again.

To schedule rates by classification scheme

On Line Sequencing Workbench

Figure 26–4   Line Sequencing Workbench screen
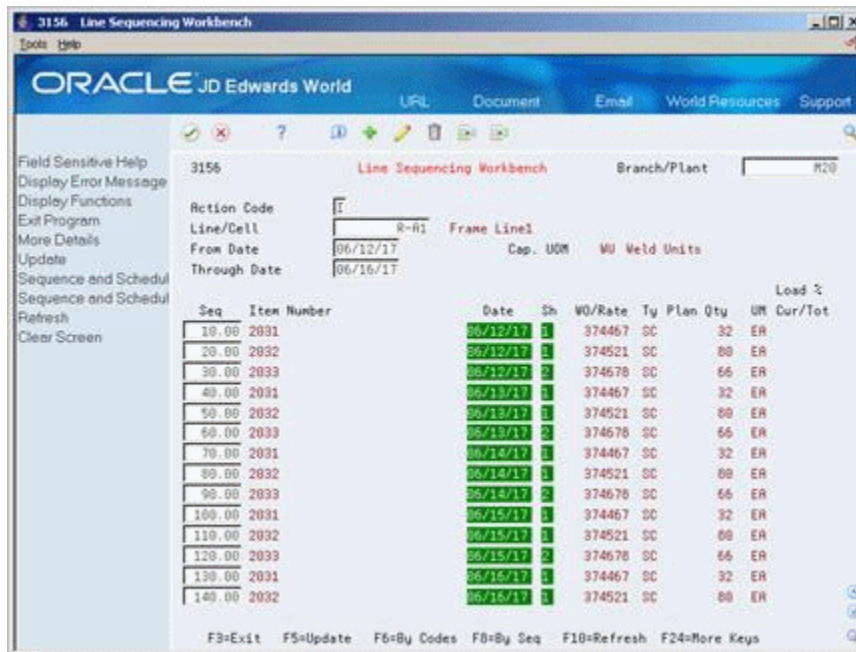
1. Complete the following fields:

- Line/Cell

- Branch/Plant

2. Complete the following optional fields and press Enter:

   - From Date

   - Through Date

3. To change the sequence of the rate, complete the following fields as needed:

-

Processing Options

See Section 36.3, "Line Sequencing Workbench (P3156)."

26.4 Reviewing Production Across Lines

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Line Schedule Review

Use Line Schedule Review to view the schedule of the production lines for the family of items produced. If items are produced on multiple production lines, use this workbench to view production across lines while staying within each line's capacity. You can toggle the information shown between an item and all items:

- Item mode - the load column represents the capacity consumed by rates for that item.

- All items mode - the load column represents the capacity consumed by the mix of items' rates in effect.

To review production across lines

On Line Schedule Review

Figure 26–5   Line Schedule Review screen
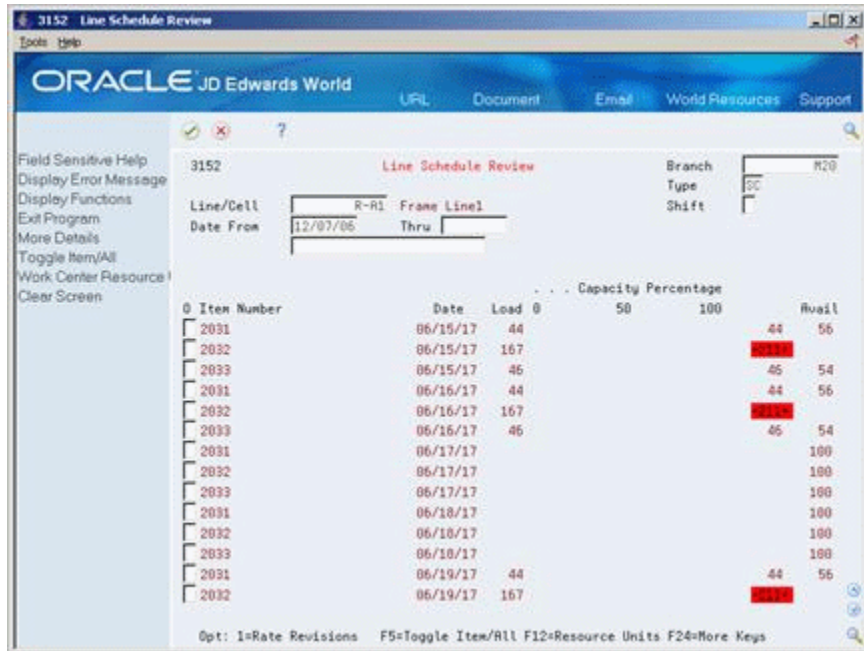
1. Complete the following fields:

   - Line/Cell

   - Branch

2. Complete the following optional fields and press Enter:

   - Date From

   - Date Through

3. Review the information.

Processing Options

See Section 36.4, "Schedule Review (P3152)."

27

Complete Rates

This chapter contains the topic:

- Section 27.1, "Completing Rates."

27.1 Completing Rates

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Completions Workbench

Use Completions Workbench to record rate or work order completions, issue parts, and record hours and quantities for the rate or work order. Depending on how you set the processing options, the Inventory Issues and Hours and Quantities forms appear as you complete rates or work orders.

When you perform a completion, the system records the inventory as received and updates all required Inventory Management system tables. The system adds the quantity that is completed to the quantity on hand for the location that you indicate.

Before You Begin

- Set the processing options to access the Issues and Hours and Quantities programs

What You Should Know About

Topic	Description
Quality Management test results	When you manage rate based information and complete quantities to inventory, you can access Test Results Entry for items that require testing.
	See Working with Test Results in the *JD Edwards World Quality Management Guide* for more information.

To complete rates

On Completions Workbench

Figure 27–1   Completions Workbench screen
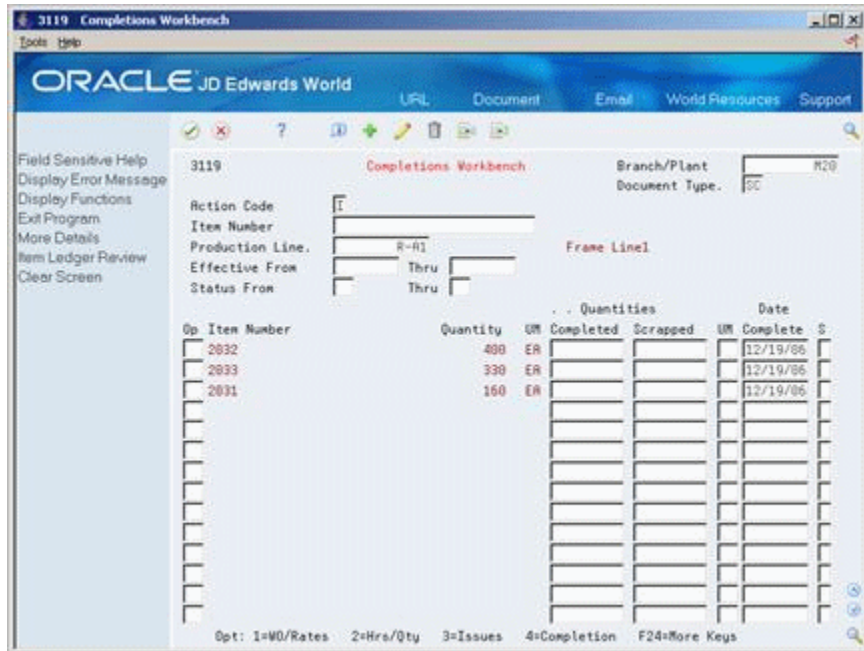
1. Complete the following fields:

   - Branch/Plant

   - Document Type

   - Item Number

   - Quantities Completed

   - Quantities Scrapped

   - Date Complete

   - Shift

2. Access the detail area.

Figure 27–2 Completions Workbench screen (Detail area)

3. Complete the following field:

   ■ Employee Number

4. Complete the following optional fields and press Enter:

   ■ Location

   ■ Lot/Serial Number

   ■ Status

5. On Super Backflush, press Enter.

Figure 27–3 W.O. Super Backflush screen
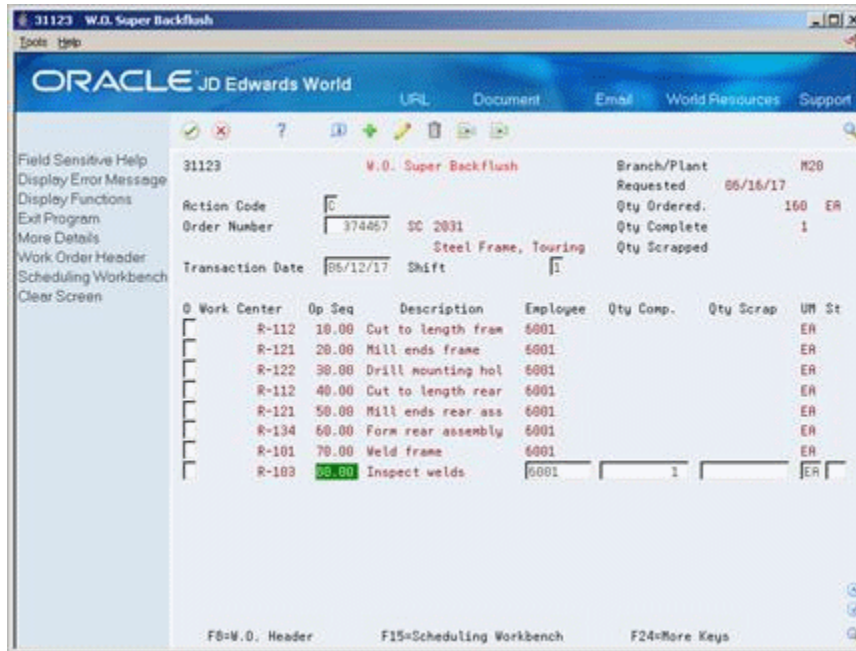
6. On Inventory Issues, press Enter.

Figure 27–4 Work Order Inventory Issues screen
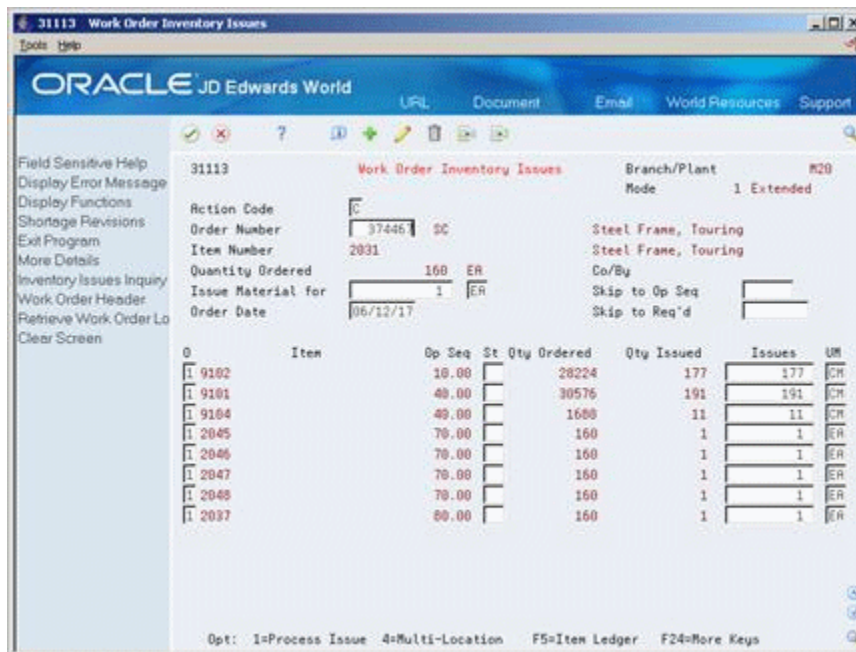
7. On Hours & Quantities Entry, complete the following fields and press Enter:

   ▪ Employee

   ▪ Operations Sequence Number

   ▪ Type of Hours

   ▪ Hours

- Unit of Measure

- Operation Status

Figure 27–5   W.O. Time Entry screen

8. Revise the following fields as needed:

- Actual Setup

- Actual Labor

- Actual Machine

Processing Options

- See Section 36.5, "Rate Transactions Workbench (P3119)."

- See Section 36.6, "Super Backflush (P31123)."

- See Section 36.7, "Work Order Time Entry (P311221)."

28

Review Information for Repetitive Manufacturing

This chapter contains these topics:

- Section 28.1, "Reviewing Production Status,"
- Section 28.2, "Reviewing Production History,"
- Section 28.3, "Reviewing Line Dispatch List."

You can review the status of rates and work orders, records for entries of completion and scrap at an operation, and planned and remaining quantities for all items scheduled through a particular production line.

28.1 Reviewing Production Status

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Production Status

Use Production Status to view the status of all rates and work orders by work center/line, work order, rate schedule number, or item number as qualified by the status and date ranges. The program shows historical information as well as open rates and work orders.

From Production Status you can access Production History, where you can view the transactions for each entry of completions and scrap at an operation. The history program shows all transactions that made up the scrapped quantities and the details of these past transactions.

To review production status

On Production Status

Figure 28–1   Production Status screen
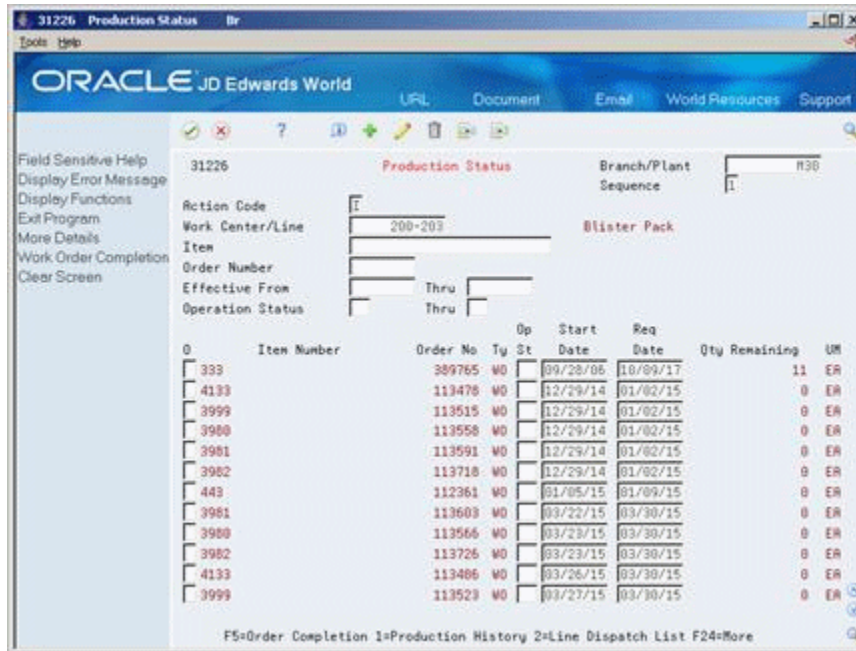
1. Complete one or a combination of any two, of the following fields:

   ■ Work Center/Line

   ■ Item

   ■ Order Number

2. Complete the following field and press Enter:

   ■ Branch/Plant

3. Review the information.

Processing Options

See Section 36.8, "Production Status (P31226)."

28.2 Reviewing Production History

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Production History

To review production history

On Production History

Figure 28–2 Production History screen

1. Complete one or a combination of any two, of the following fields:

   ■ Work Center/Line

   ■ Item Number

   ■ Order Number

2. Complete the following field and press Enter:

3. Branch/Plant

4. Review the information.

Processing Options

See Section 36.9, "Production History (P31227)."

28.3 Reviewing Line Dispatch List

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Line Dispatch List

Use Line Dispatch List to view the planned and remaining quantities for all items scheduled through a particular production line.

To review line dispatch list

On Line Dispatch List

Figure 28–3 Line Dispatch List screen
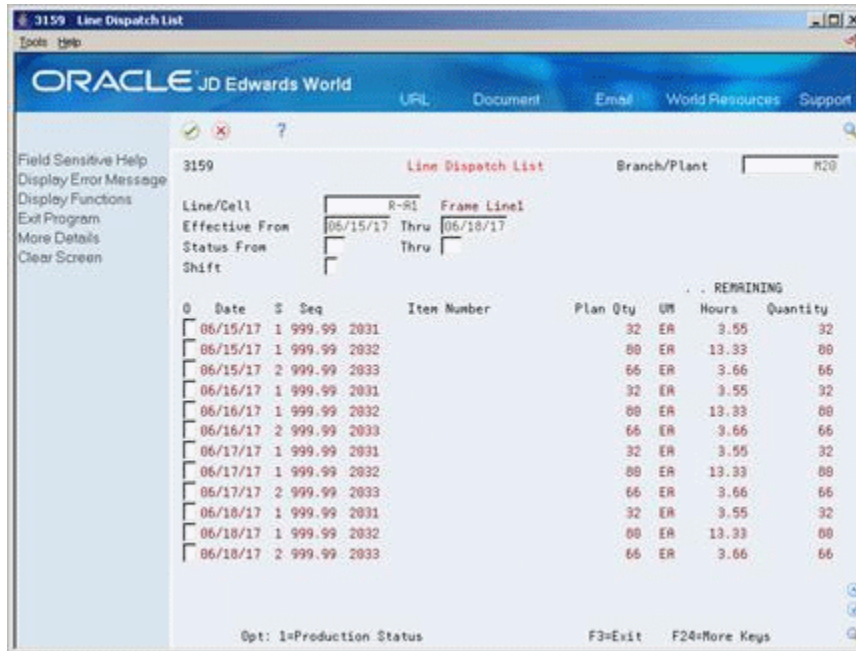
1. Complete the following fields and press Enter:

    ■   Line/Cell

    ■   Branch/Plant

2. Review the information.

3. Access the detail area.

Figure 28–4 Line Dispatch List screen
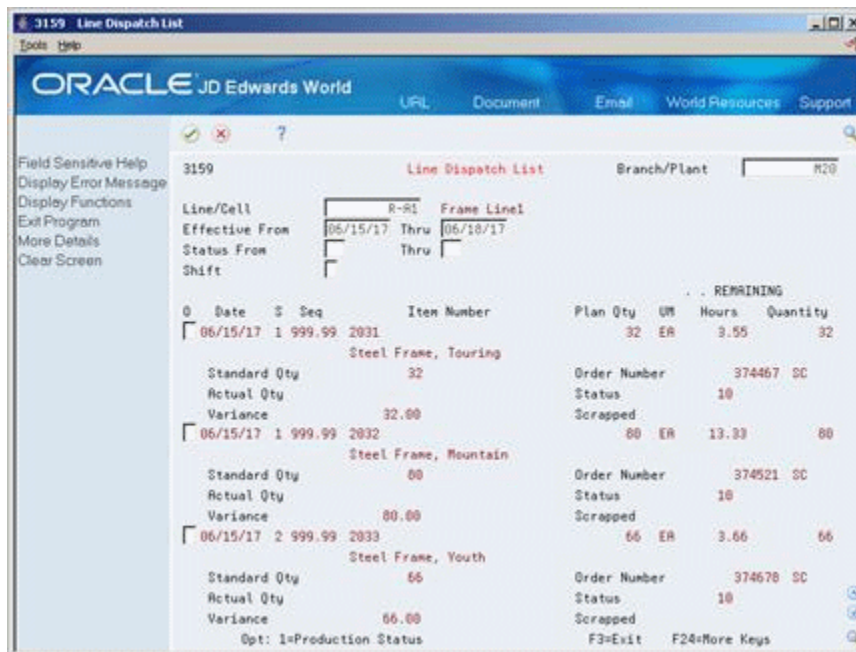
4. Review the information.

Processing Options

See Section 36.10, "Line Dispatch List (P3159)."

29

Process Kanbans

This chapter contains these topics:

While the requirements for material is driven by demand, the movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories. One program with two screen formats manage the electronically implemented kanbans.

29.1 Processing Kanbans

Use the consumption program to access kanbans at a consuming location, and the supply program to access kanbans at a supplying location, by specifying one or any two of the following criteria:

- Item

- Location

- Supplier

- Kanban identification

You process kanbans in one of two modes:

- One-Phase

- Two-Phase

29.1.1 One-Phase

One-phase assumes the completion and transfer to the consuming location are performed in one step, in which you complete the quantity directly to the consuming location and change the kanban status to checked-in (1).

29.1.2 Two-Phase

Two-phase assumes the completion and transfer are performed separately. You complete the quantity to the supplying location and change the kanban status to completed (3). After the quantity has physically been received at the consuming

location, a transfer from the supplying location to the consuming location occurs and the kanban status is changed to checked-in (1).

If you check in a kanban quantity from the supplier, the system can initiate a receipt transaction if the kanban master flag is on.

You can process kanbans for items that are:

- Inventoried
- Manufactured (sub-assemblies/phantoms)
- Externally supplied

29.1.2.1 Inventoried Items Processing

When you check out a kanban that is inventoried, the kanban status is changed. The supplying location replenishes the kanban quantity. You then complete and check in the kanban, which results in an inventory transfer transaction.

29.1.2.2 Manufactured Processing

When you check out a kanban that is manufactured, the program either creates a work order, or looks for an existing rate. It bases its action on the items' order policy code. (If the system does not find a rate, it creates one.) When the system creates a rate, it automatically attaches the parts list and routing. When you check in the kanban, you complete the work order or rate, issue parts, enter hours and quantities, and transfer the parent item to the consuming location.

29.1.2.3 Manufactured Processing - Phantom Item

When you check out a kanban supplied by a work center/production line, and the item is a phantom, no transactions outside of inventory transfers occur. There are no work orders or rates to process; the item is simply replenished by the producing line and the kanban is completed and checked in. This results in an inventory transfer transaction, from the supplying location to the consuming location.

29.1.2.4 Externally Supplied Processing

When you check out kanbans from an external supplier, the system may create a new purchase order, or use an existing one. However, there must be an open purchase order for the item. In addition, when you check out the kanban, the system may also initiate an Electronic Data Interchange (EDI) transaction. When you check in kanbans from an external supplier, the system may optionally perform a receipt against the purchase order.

29.2 Processing Kanban Consumption by Item

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing - Repetitive (G3115), choose Kanban Consumption

Kanban Consumption allows you to access all kanbans at a given consuming location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a consuming location:

- Checked-in (1)
- Checked-out (2)

To process kanban consumption by item

On Kanban Consumption

Figure 29–1   Kanban Consumption screen

1. Complete the following fields:
   - Item Number
   - Branch/Plant
2. Access the detail area.

Figure 29–2   Kanban Consumption screen (Detail area)

3. To check in the item, enter a 1 in the following field next to the item number:

   - Option

   - Quantity may also be modified

4. Complete the following fields if checking in a kanban that was supplied by the production line which included the creation of a rate or work order:

   - Employee Number

   - Shift

5. To check out the item, enter a 2 in the following field next to the item number:

   - Option

Processing Options

See Section 36.11, "Kanban Consumption/Supply (P3157)."

29.3 Processing Kanban Supply by Item

Navigation

From Shop Floor Control (G31), choose Repetitive Daily Processing

From Shop Floor Control (G31), choose Repetitive Daily Processing

Kanban Supply allows you to access all kanbans that need replenishment for items stored or produced at a given supplying location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a supplying location:

- Checked-in (1)

- Completed (3)

Inventory and statuses are affected as follows:

- One-phase - inventory is immediately received and available at the consuming location, and the status is changed to checked-in (1).

- Two-phase - the completion and transfer are reported separately:

  - The quantity is completed to the supplying location, the kanban status is changed to a complete (3).

  - After the quantity has physically been received at the consuming location, a transfer is performed from the supply location to the consuming location and the kanban status is changed to checked-in (1).

To process kanban supply by item

On Kanban Supply

Figure 29–3   Item Branch/Plant Information screen
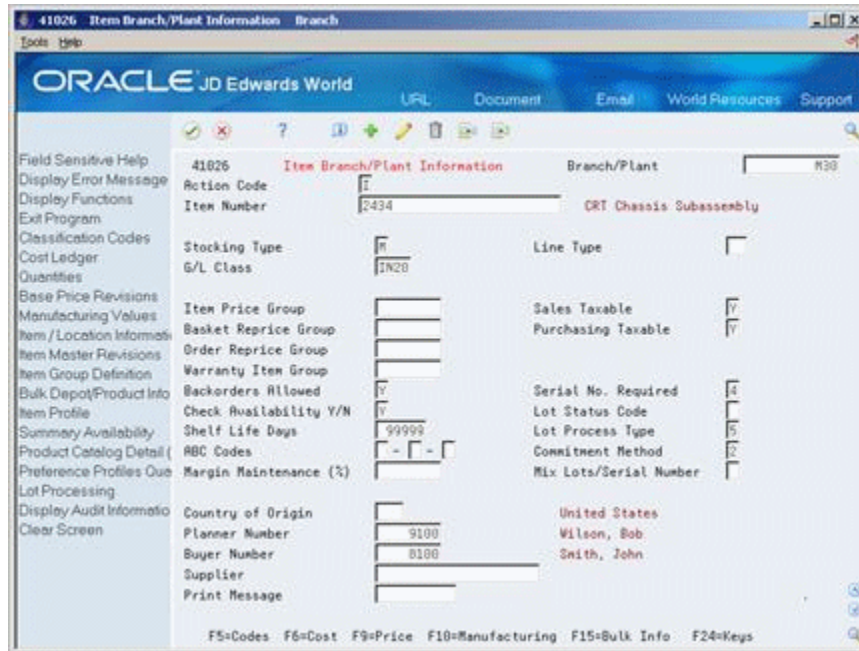
1. Complete the following fields:

    ■   Item Number

    ■   Branch/Plant

2. Access the detail area.

Figure 29–4   Kanban Supply screen (Detail area)
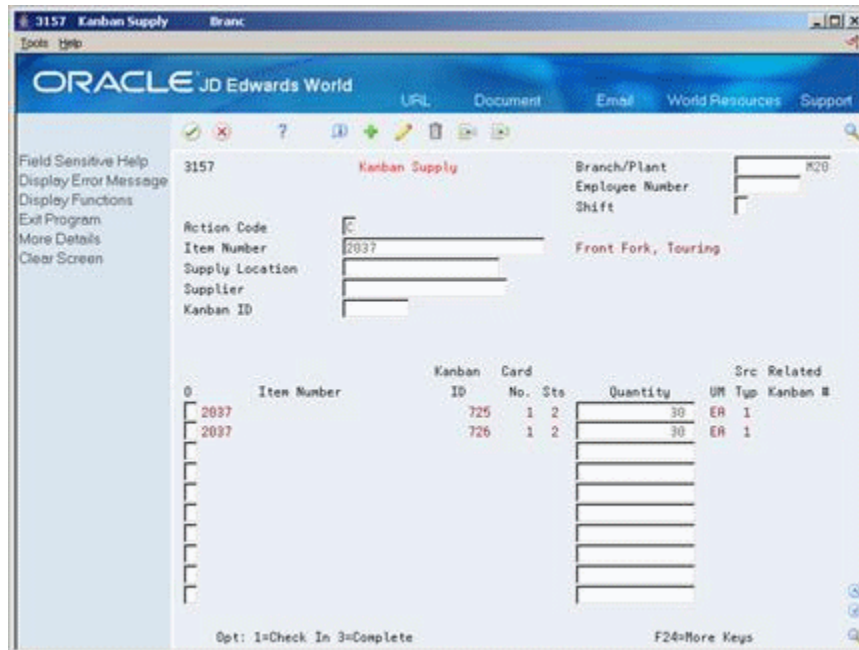
3. To check in the item, enter a 1 in the following field next to the item number:

    ■   Option

- Quantity may also be modified

4. Complete the following fields if checking in a kanban that was supplied by the production line which included the creation of a rate or work order:

   - Employee Number

   - Shift

5. To complete the item, enter a 3 in the following field next to the item number:

   - Option

   - Quantity may also be modified

To cancel a kanban

On Kanban Consumption

Figure 29–5   Kanban Consumption screen
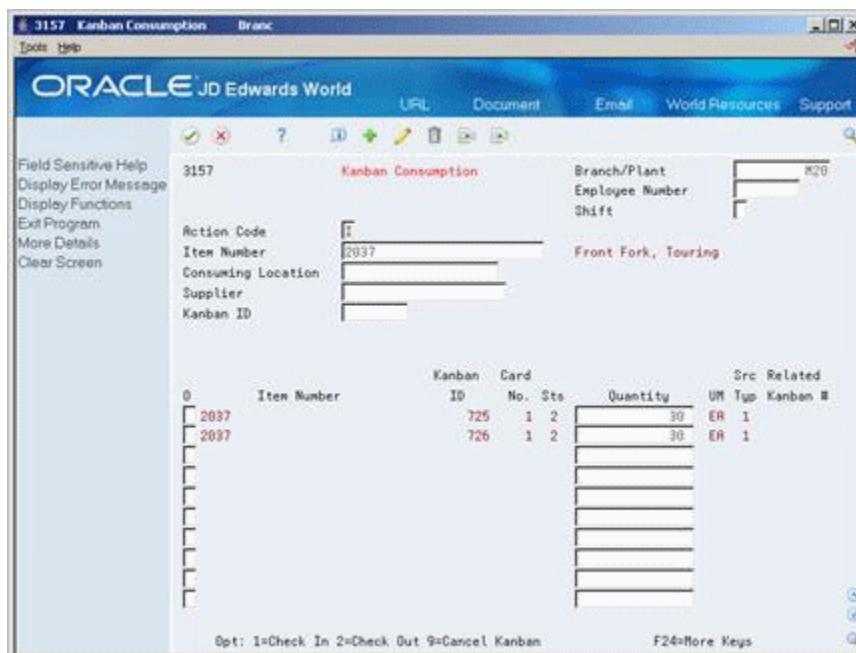
1. Complete the following fields:

   - Item Number

   - Branch/Plant

   - Kanban ID (optional)

2. Press Enter.

3. Enter a 9 in the following field next to the item number:

   - Option

4. Press Enter to display a confirmation message.

5. Enter a Y in the field next to the confirmation message:

Processing Options

See Section 36.11, "Kanban Consumption/Supply (P3157)."

29.4 Processing Kanban Status Override

Navigation

From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Kanban Status Override

Should you find that a kanban card is not at the correct status, you can bypass normal kanban processing and change the status using the Kanban Status Override program (P3163). This will only update the status on the kanban and not perform any associated processing. This program has been placed on an advanced menu since it should only be used for remedial purposes by authorized users.

If all kanban card records are updated to the same status, the program will also update the status on the Kanban Master record.

To process kanban status overrides

On Kanban Status Override

Figure 29–6   Kanban Status Override screen
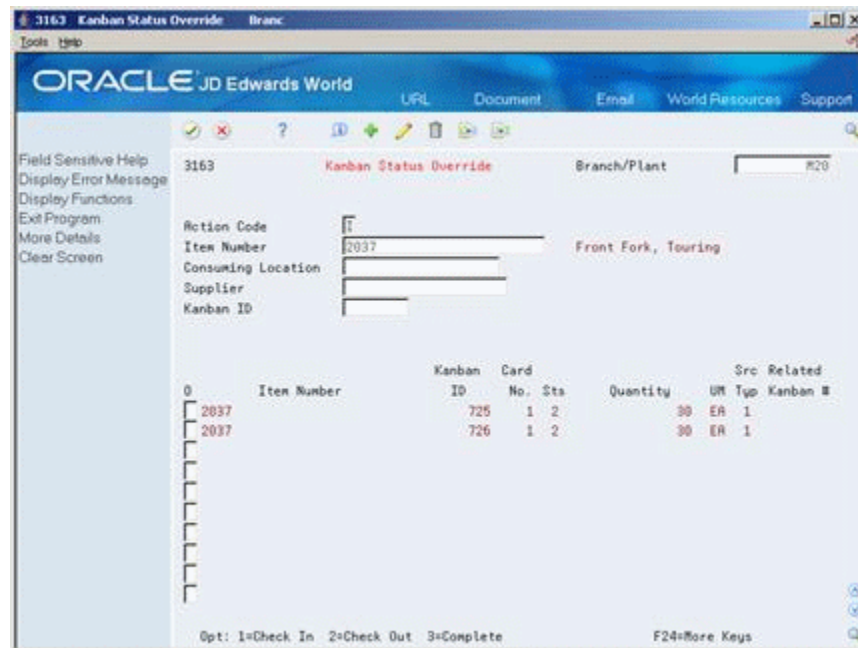
1. Complete the following field:

■   Option

You can use the processing options to control which status codes the program is allowed to update.

Processing Options

See Section 36.12, "Kanban Status Override (P3163)."

30

Close Rates

This chapter contains the topic:

- Section 30.1, "Closing Rates."

30.1 Closing Rates

Navigation

From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Close Rates

Use the Close Rates program to close rate schedules if the:

- Status is greater than or equal to the value specified in the processing options
- Effective through date is less than or equal to the date specified in the processing options

When you close rates, the system:

- Purges the rate schedule data from the Quantity Detail table
- De-commits any quantities for the applicable rates

> **See Also:**
>
> - Section 20.3, "Purging a Work Order" for information about purging data.

Processing Options

See Section 36.13, "Batch Rate Close by Date (P3191)."

31

Orderless Processing

Orderless Processing allow you to complete a product and manage the related cost without entering a work order or rate schedule.

This chapter contains these topics:

31.1 Processing Orderless Completion

Navigation
From Orderless Processing (G3118), choose Orderless Completion

The Orderless Completion program records a completion, issues parts, and records hours and quantities for Orderless Processing. This program calculates and prepares related costs for Manufacturing Orderless Accounting.

Performing an Orderless Completion increments inventory of the finished item while decrementing inventory of the required components and capturing all related costs, without entering a work order or rate schedule.

Using the items product data starting with the standard manufacturing bill of material and routing, when a completion for an item is recorded, the system stores transaction details in the Orderless Completion File (F3116) and calculates and stores material and shop floor activity costs in the Production Cost file (F3102).

After you enter a completion, you can not make any changes to the entry. However, until journal entries are written, you can perform a complete reversal of the completion. Choose Reverse (F6) after locating the document number you want to reverse. Alternatively, you can use an option exit from Orderless Completion Inquiry to the Orderless Completion. Reversing a completion creates corresponding Item Ledger (Cardex) entries, updates inventory quantities and completely removes the transaction records from the completion and cost files (F3116 and F3102).

Orderless Completions allows you to backflush common production items without the need for administration of a Work Order, thus streamlining the through-put of these common items in the total production process.

> **Note:**   Orderless Completions performs a blind backflush of material (if item has BOM) and labor (if the item has Routing). If you need to make changes to parts list or routings, you must generate a Work Order.

Figure 31–1   Orderless Completions screen

31.2 Orderless Completion Inquiry

Navigation

From Orderless Processing (G3118), choose Orderless Completion Inquiry

Use Orderless Completion Inquiry to find and review orderless completions. You can view Orderless Completion within a specified Branch/Plant, by any combination of Item Number, Work Center or Line, and Transaction Date ranges. You may also inquire by Document Number.

You can find option exits to Orderless Completion, Production Cost Inquiry, G/L Review, Item Ledger, and Lot Master screens, from any completions displayed.

The Orderless Completion Inquiry screen allows inquiry on all the Orderless Completed Transactions entered in the system.

To locate an Orderless Completion

On Orderless Completion Inquiry

Figure 31–2   Orderless Completion Inquiry screen

1. Complete one or a combination of any two, of the following fields:

   ■ Item Number

   ■ Work Center or Line

   ■ Transaction Date ranges

   ■ Document Number

2. Complete the following field and press Enter:

   ■ Branch/Plant

3. Review the information.

31.3 Orderless Manufacturing Accounting

Navigation

From Orderless Processing (G3118), choose Orderless MFG Accounting

The Orderless Manufacturing Accounting (P31862) batch program generates the journal entries for the Orderless Completion.

The system stores transaction details in the Orderless Completion File (F3116) and calculates and stores material and shop floor activity costs in the Production Cost File (F3102).

This program uses the data from these files to generate journal entries for material issues, shop floor activities, completions, scrap, and variance.

Running this program always produces an exception report (R31862) and optionally produces an accounting journal (R31863).

This program uses the following Automatic Accounting Instruction tables to establish the correct G/L accounts:

3110   Raw Material/Sub-Assemblies

3120   Work in Process

3130   Sub-Assemblies/Finished Good

3401   Accruals

3220   Labor Variance

3240   Material Variance

Processing Options

See

Part III

System Setup

This part contains these chapters:

- Chapter 32, "Overview to System Setup,"
- Chapter 33, "Set Up Work Order Codes,"
- Chapter 34, "Set Up Manufacturing Information."

32

Overview to System Setup

This chapter contains these topics:

- Section 32.1, "Objectives,"
- Section 32.2, "About System Setup."

32.1 Objectives

- To set up the required data in the Shop Floor Control system
- To understand how the system uses the data

32.2 About System Setup

Shop Floor Control requires some setup prior to using the system. Setup for Shop Floor Control includes codes needed for work orders, such as priority, status, and category codes. As well as, information needed for discrete and repetitive manufacturing, such as employee labor rates, shop floor calendar, and work centers.

To set up your Shop Floor Control system, complete the following tasks:

- Set up work order codes
- Set up manufacturing information

Before You Begin

- Set up the following records in the Inventory Management system:
  - Item Master
  - Branch/Plant

    See Also:

    - *JD Edwards World Technical Foundation Guide* for information on defining user defined codes,
    - *JD Edwards World Inventory Management Guide* for information on setting up the Item Master, Branch/Plant, and Lot Master records.

33

Set Up Work Order Codes

This chapter contains the topic:

- Section 33.1, "Setting Up Work Order Codes."

33.1 Setting Up Work Order Codes

You need to define certain user-defined codes for your manufacturing work orders.

Setting up work order codes includes the following steps:

- To set up type codes
- To set up priority codes
- To set up status codes
- To set up phase codes
- To set up category codes
- To set up operation status codes
- To set up document type codes

> **See Also:**
>
> - Section 35.1, "Manufacturing Work Order Entry (P48013)."

To set up type codes

Navigation
From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Type

Work order type codes (00/TY) indicate the type classification of a work order. For example, a rework order might be type R and a design order might be type D.

On Type

Figure 33–1   Type screen
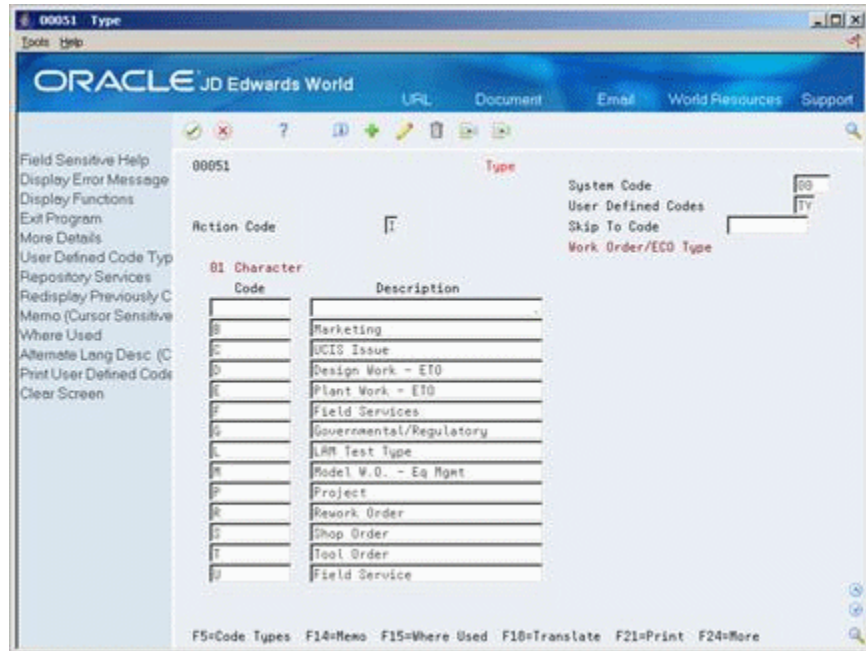
Complete the following fields:

- System Code

- User-defined Code

- Character Code

- Description

- Description-2

Field	Explanation
System Code	A user-defined code (98/SY) that identifies a JD Edwards World system.
User-defined Codes	Identifies the table that contains user-defined codes. The table is also referred to as a code type.
Code	This column contains a list of valid codes for a specific user-defined code list. The number of characters that a code can contain appears in the column title.
Description	A user-defined name or remark.
Description-2	Additional text that further describes or clarifies a field in JD Edwards World systems.

To set up priority codes

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Priority

Work order priority codes (00/PR) indicate the priority of a work order in relation to other work orders. These codes are for reference only and do not affect the scheduling or planning of work. They should not be used as your formal work priority system.

On Priority

Figure 33–2   Priority screen
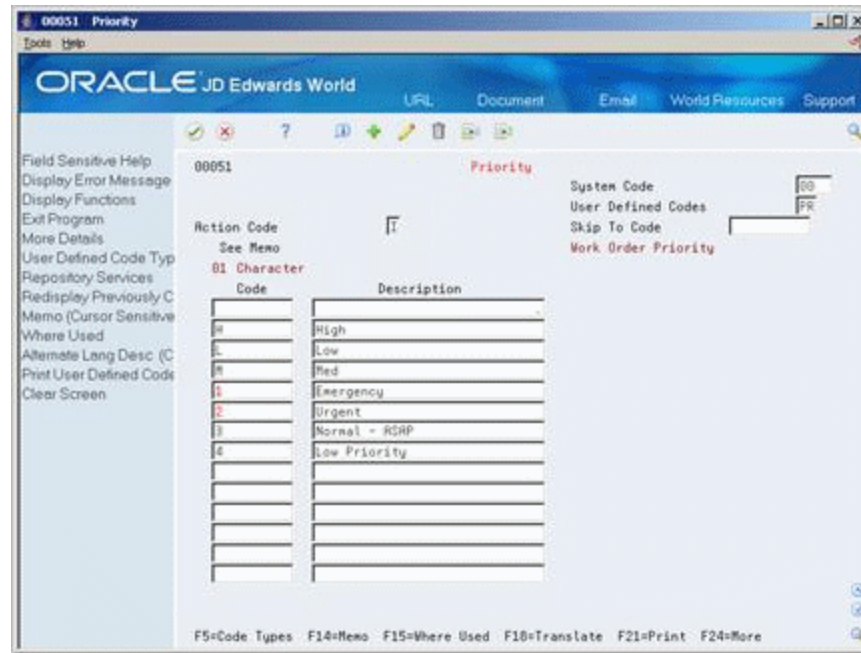
Complete the following fields:

- System Code

- User-defined Code

- Character Code

- Description

To set up status codes

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Status

Work order status codes (00/SS) describe the status or the current step in the process of implementing a work order. You can prevent certain transactions from occurring based on the status of a work order. For instance, the system can hold work orders whose status indicates they are pending approval or quality inspection, and release work orders that have a status code indicating they have been approved or passed quality inspection. In addition, you can set the system to automatically update the work order status code when you enter issue and completion transactions.

On Status

Figure 33–3   Status screen
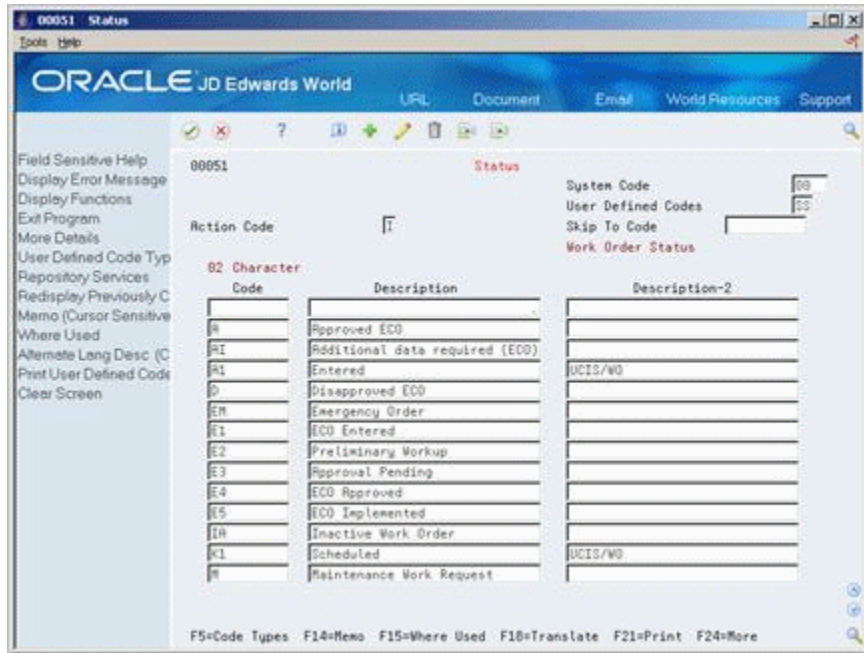
Complete the following fields:

- System Code

- User-defined Code

- Character Code

- Description

To set up phase codes

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Phase

Work order phase codes (00/W1) indicate the implementation phase of the work order. You can use phase codes to group families of orders for project management, cost accounting, and inquiry purposes. For example, if inspection on the internal parts of a product is not possible beyond a certain point in its production, you can divide the routing into phases. You can then use the phase code to indicate availability of the product for the next level of inspection.

On Phase

Figure 33–4   Phase screen

Complete the following fields:

■   System Code

■   User-defined Code

■   Character Code

■   Description

To set up category codes

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Category Code 02

Work order category codes 02 and 03 can represent any category or description by which you want to group work orders for project management, cost accounting, or inquiries. For example, you can set up one category code to represent types of problems encountered in the work order implementation, such as improper startup or inadequate maintenance, and another code to represent locations where the work is taking place.

On Category Code 02

Figure 33–5   Category Code 02 screen
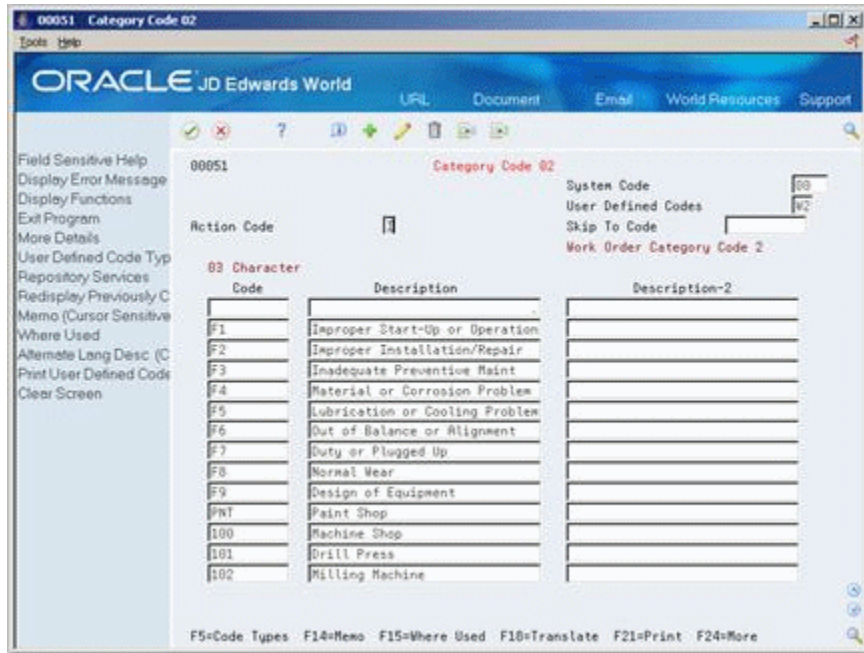
Complete the following fields:

- System Code

- User-defined Code

- Character Code

- Description

To set up operation status codes

Navigation

From Shop Floor Management (G31), choose Shop Floor Control Setup

From Shop Floor Control Setup (G3141), choose Operation Status

Work order operation status codes (31/OS) indicate the progress or status of an order during the steps followed in a particular operation. For example, you can set up codes to indicate if materials have been received or work begun at a particular operation. This allows management to monitor the progress of operations that have longer run times, or shop floor personnel to indicate when items are ready to move to the next operation.

On Operation Status

Figure 33–6   Operation Status screen
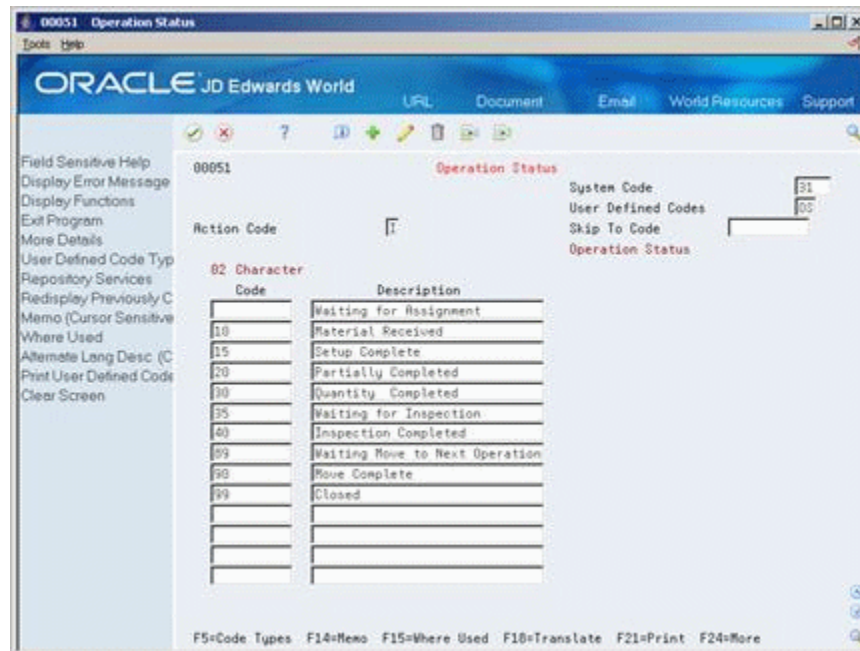
Complete the following fields:

■   System Code

■   User-defined Code

■   Character Code

■   Description

To set up document type codes

Navigation

From any menu, enter UDC in the command line

You can categorize your work orders by document type using user-defined codes (00/DT). For example, you can define document type codes to indicate rework orders, prototype orders, or repair orders. If you do not specify a document type on a new work order, the system enters a document type of WO (Firm Work Order).

Document types are used to categorize information across your JD Edwards World systems. You can specify up to 12 document types to be used for work orders and rates in supply/demand calculations by entering them in the processing options for the Supply/Demand Inclusion Rules in the Manufacturing Planning system. The Manufacturing Accounting system uses the document type to match the document types defined in your automatic accounting instructions (AAIs) when you post journal entries to the general ledger.

On General User-defined Codes

Figure 33–7   General User-Defined Codes screen
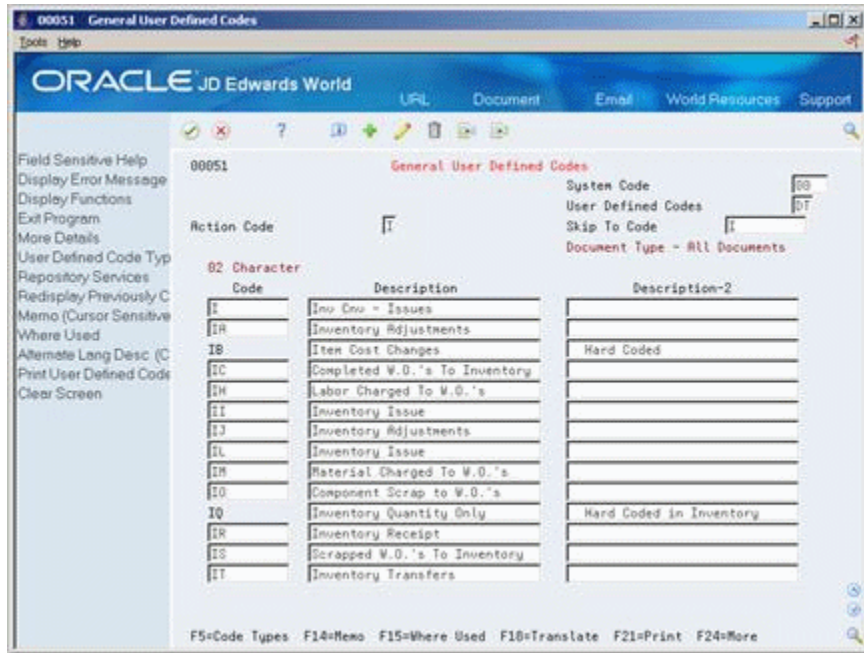
1. Complete the following fields to locate document types:

    ■   System Code

    ■   User-defined Code

2. Complete the following fields to set up new document type codes:

    ■   Character Code

    ■   Description

34

Set Up Manufacturing Information

This chapter contains these topics:

Set up the information that is needed for discrete and repetitive manufacturing, such as user defined codes, work day calendars, and .

34.1 Setting Up Standard Procedures

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup(G3141), choose Standard Procedures

You can set up generic messages (48/SN) that represent procedural or message text for your company. Use them to describe a standard procedure for each step in a routing.

The description you define for the code prints on shop floor documents and appears in online inquiries that access data on Enter/Change Routing.

What You Should Know About

Topic	Description
Indicating the procedure to use for routings	After you define standard procedure codes, you can enter them in the Standard Description field on Enter/Change Routing to indicate the procedure to use for each routing operation.

To set up standard procedures

On Standard Procedures

Figure 34–1 Standard Procedures screen

1. Complete the following fields:

    ■   Character Code

    ■   Description

2. Choose General Message.

Figure 34–2 General Message screen
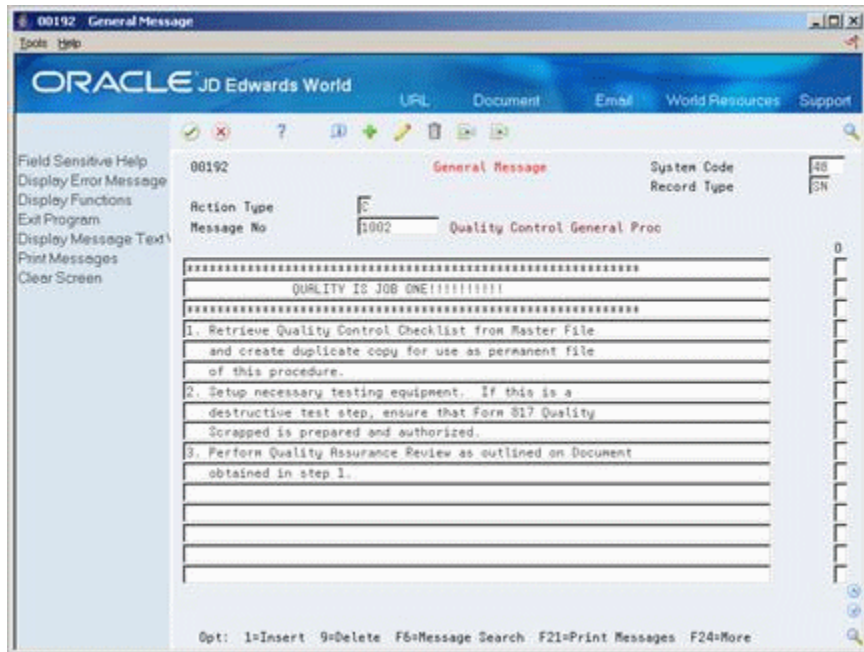
3.   On General Message, complete the following fields to add a message to the code
     you selected:

- Message Number

- Message

Processing Options

See Section 37.2, "Generic Rate/Message Records Program (P00191)."

34.2 Setting Up Employee Labor Rates

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup(G3141), choose Employee Labor Rates

Employee labor rate codes are generic rates (31/ER) that represent hourly labor rates for your employees. The rate that you define for each employee appears in the Employee Rate field on the Hours and Quantities Entry form when the employee enters time transactions. For each code, you can define the name or type of employee that the code represents and the hourly labor rate for the employee or job category.

To set up employee labor rates

On Employee Labor Rates

Figure 34–3 Employee Labor Rates screen

Complete the following fields:

- Character Code

- Description

- Rate

Field	Explanation
Rate	A code used to define rate information in the General Rate/Message Records table (F00191).

Processing Options

See Section 37.2, "Generic Rate/Message Records Program (P00191)."

34.3 Setting Up the Shop Floor Calendar

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup(G3141), choose Shop Floor Calendar

You can define the work days by month and year for each branch or all branches in your system in the Shop Floor Calendar. The system uses this calendar to determine manufacturing schedules.You can also define calendars by shift and name. The system uses these calendars for line sequencing by shift in repetitive manufacturing.

To increase plant capacity, manufacturers run production lines for more than one shift, as well as run different lines of production on different days of the week. You specify these shifts and lines on the Shop Floor Calendar.

What You Should Know About

Topic	Description
Deleting a branch calendar	If you delete a branch calendar for a month and year, the calendar record no longer exists. However, if you locate a month and year that does not exist, it appears with default values. You can then add the record.
System defaults	If the shop calendar for the branch, month, and year are not yet defined, the system preloads default work days (Monday through Friday) and weekends (Saturday and Sunday). Holidays are always user defined.
Shift calendars	Shift calendars are not used for DRP/MPS/MRP.

To set up the shop floor calendar

You set up a calendar month by locating the month, year, and branch, and entering any different day types.

On Shop Floor Calendar

Figure 34–4   Shop Floor Calendar screen
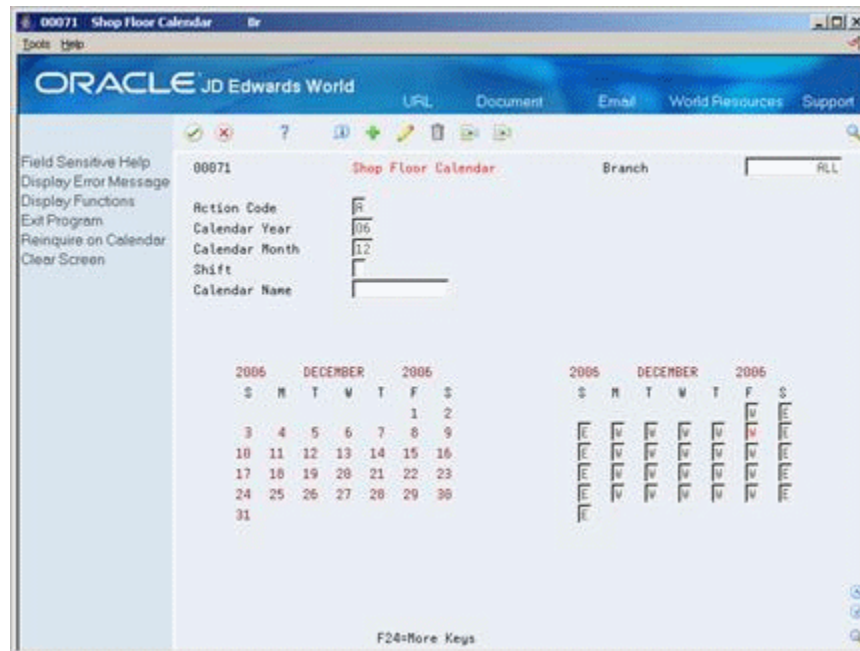
Complete the following fields:

■   Branch

■   Calendar Year

■   Calendar Month

■   Shift (for repetitive manufacturing)

■   Line (for repetitive manufacturing)

■   Type of Day

The calendar on the left shows the actual calendar days for the month and year that you requested. The calendar on the right shows the workdays and non-workdays that you define.

Field	Explanation
Branch	A code that represents a high-level business unit. It can be used to reference a branch or plant that might have departments or jobs, which represent lower-level business units (data item MCU), 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.
	Form-specific information
	This value identifies the branch or plant in which the calendar resides. It must be a valid business unit.
Calendar Year	The calendar year.

Field	Explanation
Calendar Month	The calendar month.
Shift	A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.
	For payroll and time entry:
	If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.
	If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.
	Form-specific information
	For repetitive manufacturing, this field identifies the shift for the production line.
	The Line Scheduling Workbench and Line Sequencing Workbench programs use these shift and line specific calendars to schedule production accordingly.
Calendar Name	An alphanumeric field 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, or branch/plant.
	You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.
	Security for this field can prevent you from locating business units for which you have no authority.
	Note: The system uses this value for Journal Entries if you do not enter a value in the AAI table.
	Form-specific information
	For repetitive manufacturing, this field provides the link to the Work Center Master, which allows the system to create calendars for that production line. You must also identify all shifts for the production line.
	The Line Scheduling Workbench and Line Sequencing Workbench programs use these shift and line specific calendars to schedule production accordingly.

34.4 Setting Up Manufacturing Constants

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup(G3141), choose Manufacturing Constants

You set up manufacturing constants to maintain general branch or plant information that affects processing throughout the Manufacturing system, such as:

- When inventory is committed and backflushed

- Which overhead costs calculations are used

- Whether work center efficiency is considered when calculating direct labor and overhead

- Whether an audit trail tracks all changes made to bills of material

- Whether the system validates bills of material online as you enter them

- Whether the system performs costing separately for each work center

Information that you define for manufacturing constants affects all areas of the JD Edwards World Manufacturing system, so you should make your choices carefully.

Complete the following tasks:

- Set up engineering manufacturing constants

- Set up production manufacturing constants (optional)

- Set up accounting manufacturing constants

To set up engineering manufacturing constants

On Manufacturing Constants

Figure 34–5 Manufacturing Constants screen

1. Complete the following fields:

   - On-Line BOM Validation

2. Complete the following optional fields:

- Log Bill of Material Changes

- Master Routings

- Percent Bill Validation

- Activity Rules Flag (Y/N)
- Actual Costing only:
    - Labor Rate Source
    - Machine Rate Source

Field	Explanation
Log Bill of Material Changes	This field determines whether changes to the bill of material are recorded in the Bill of Material Change table (F3011). Valid values are: Y – Yes, log changes. N – No, do not log changes. Blank will assume an N. When you log bill of material changes, the system saves the old bill of material and the new changed bill of material.
On-Line BOM Validation (Y/N)	Determines whether the system performs an online component/parent validation and low-level code assignment when you revise a bill of material. Valid values are: Y – Yes, validate items online. N – No, do not validate items online. **Note:** JD Edwards World recommends that you validate items online (enter Y) unless your bills of material are extremely large. **Important:** If you enter N, you must validate the items in batch. Run the Print Integrity Analysis program (P30601) after bill of material updates and before you run the Cost Simulation (P30820) and Cost Update program (P30835) or perform a DRP/MPS/MRP generation (P3482).
Master Routings (Y/N)	This field controls whether the system uses the master routing for an item or a routing defined for the parent item. Both routings are retrieved from the Routing Master table (F3003). Valid values are: Y – Yes, use the master routing for an item, if one exists. The Shop Floor Control system checks the Item Cross Reference table (F4104), Cross Reference Type MR, for the parent item. If the system finds a cross-reference, the system uses the master routing from the Routing Master table (F3003). If the system does not find a cross-reference, the system uses the routing defined for the parent item. N – No, do not check for a master routing for the item. The system always uses the parent item's routing from the Routing Master table (F3003).
Percent Bill Validation	This flag designates whether percent bills are allowed to contain fixed or variable components in addition to the 100% formula. If left blank, the system allows only percent components and must total 100%.

Field	Explanation
Activity Rules Flag (Y/N)	This flag determines allowable status changes. Prior to turning on the Activity Rules Flag (P3009), establish rules for each Document and Work Order type combination you use in the branch/plant. Activity Rules for Manufacturing Work Orders are optional by branch/plant.
	Y - Yes. Use Activity Rules to regulate updates to Work Order and Rate Schedule status codes. With Activity Rules activated, attempted status updates not allowed by the rules generate an error and prevent completion of the requested action.
	N - No. Do not regulate updates to Work Order and Rate Schedule status codes.
Labor Rate Source	If manufactured items are set in Cost Revisions (F4105) to use Sales /Inventory cost method 02, you must select a 1 or 2 in the field. The code specifies the source for labor rates. Valid values are:
	1 - Work Center Rates table (F30008)
	2 - Employee Labor Rates table (F00191)
Machine Rate Source	If manufactured items are set in Cost Revisions (F4105) to use Sales/Inventory cost method 02, you must select a 1 or 2 in the field. The code specifies the source for machine rates. Valid values are:
	1 - Work Center Rates table (F30008)
	2 - Equipment Rates table (F1301)

See Also:

- Setting Up Manufacturing Constants in *JD Edwards World Product Data Management - Discrete Guide*.

To set up production manufacturing constants

On Manufacturing Constants

Complete the following optional fields:

- Backflush Option

- Commitment Control

- Hard/Soft Commit

- Hours

- Shift Code

Field	Explanation
Backflush Options	Determines how the system performs commitment and release of inventory during the backflush process. Valid codes are:
	1. Create a standard parts list based on the value in the Commitment Control field in the Manufacturing Constants table (F3009).
	2. Create a parts list, committing to the location indicated in the Work Center Master table (F30006). The Operation Sequence field in the Bill of Material table (F3002) determines the work center that is used.
	Note: You must create the work order routing before the parts list. If you are running work order generation, the work order routing and the parts list must be created at the same time.
Commitment Control	Determines how the system commits inventory to a work order, and limits the inventory location to which commitments are made. The system activates this field only when you create hard commitments. Valid codes are:
	1. Make commitments to the primary location in the branch/plant where the work order originates.
	2. Split the parts list and commitments to fill any component shortages. The system can cross branch boundaries to fill requirements. In this case, the system uses the next alphabetical branch/plant listed in the table that occurs after the branch/plant on the work order header. For example:
	CAL
	CHI
	CLE
	HOU
	If the system starts committing inventory at branch/plant CHI, it accesses CLE as the next branch/plant. If inventory is low in all locations, the system makes the remaining commitments to the primary location of the branch/plant on the work order header.
	3. Same as 2, but the system cannot cross branch boundaries.
	When you set the Commitment Method field in the Item Branch/Plant table to 2 or 3 (lot number or expiration date control), you must set this field to 3.

Field	Explanation
Hard/Soft Commit	Determines how the Shop Floor Control system commits inventory. Valid codes are:
	1. The system performs a hard commitment at the creation of the parts list. The hard commitment remains in effect until inventory is relieved.
	2. The system performs a soft commitment at the creation of the parts list. This is changed to a hard commitment during the pick list print process for the work order. The hard commitment remains in effect until inventory is relieved.
	3. The system performs a soft commitment at creation of the parts list. The soft commitment remains in effect until inventory is relieved.
	When the hard/soft commit option is set to 2 or 3, any line item in the parts list may be hard committed prior to printing or relieving the inventory.
	Note: When you set the Commitment Method field in the Branch/Plant Constants form to 2 or 3, you must use 1 or 2 for this field because a hard commitment must be performed.
	Note: A soft commitment will not be generated for a secondary location. So if there is a location that is filled in on the parts list the part has to be hard committed. This is a hard rule that overrides other rules. If the system is set to soft commit until inventory is relieved, the system will not use the commitment control field because only a soft commitment to the primary location will be created and used until the inventory is issued.
Work Hours Per Day	The number of work hours that the manufacturing plant operates per day.
	Form-specific information
	For repetitive manufacturing, identify the number of work hours per shift for the specified branch. The Resource Generation program uses the corresponding shift hours to calculate the available resource units for each shift, and the total for the day.
	Since the shift hours may apply to different days of the week, the system uses the total of the first three hours to define the work hours per day value.
Shift Code	A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.
	For payroll and time entry:
	If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.
	If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.
	Form-specific information
	For repetitive manufacturing, use the six corresponding shift fields to identify all production line shifts for the specified branch. The Resource Generation program uses the corresponding shift hours to calculate the available resource units for each shift, and the total for the day.

To set up accounting manufacturing constants

On Manufacturing Constants

1. Complete the following fields:

   - Cost by Work Center

   - Modify Cost by Work Center Efficiency

   - Include Efficiency in Overhead

   - Include Variable Labor Overhead in Cost

   - Calculate Variable on Direct Labor

   - Calculate Variable on Setup Labor

   - Include Fixed Labor Overhead in Cost

   - Calculate Fixed on Direct Labor

   - Calculate Fixed on Setup Labor

   - Include Variable Machine Overhead in Cost

   - Include Fixed Machine Overhead in Cost

2. Complete the following optional field:

- Overheads as Percents or Rates

Field	Explanation
Cost by Work Center	A code, maintained in the Manufacturing Constants program (P3009), that indicates whether the system tracks cost variances for discrete and process items on a summarized level in the Item Cost Component Add-Ons file (F30026) on a detailed level in the Item Cost Component Detail file (F300261).
	Valid values are:
	Y - Yes, Maintain costs on a detailed level by cost component and work center
	Blank or N - No, Maintain costs on a summarized level by cost component only
Overheads as Percents or Rates	Determines how values for overhead fields (cost components C1 through C4) in the Work Center Rate Revisions table (F30008) are expressed. Valid codes are:
	R – Express overhead values as rates (currency values). For example, enter five dollars as 5.00.
	P – Express overhead values as percents. Enter percents as whole numbers. For example, enter five percent as 5.00.
Modify cost by Work Center Eff	Controls whether the cost rollup creates cost component B4 (for labor efficiency) based on the direct labor value (cost component B1) and the Work Center Efficiency percent from the Work Center Revisions table (F30006). Valid values are:
	Y – Yes. Create cost component B4.
	N – No. Do not create cost component B4.

Field	Explanation
Include Efficiency in Overhead	If you specified that you want to modify costs by work center efficiency, this field determines whether the cost rollup includes work center efficiency when calculating overhead values. Valid values are: Y – Include work center efficiency. N – Exclude work center efficiency.
Include Var. Labor Overhead in cost	Controls whether the cost rollup creates cost component C3 (for variable labor overhead) in the Cost Components table (F30026). Valid values are: Y – Yes. Create cost component C3. N – No. Do not create cost component C3.
Calculate Var. on Direct Labor	Determines whether the cost rollup includes direct labor expenses (cost component B1) in the total used to calculate variable labor overhead (cost component C3). Valid values are: Y – Include direct labor expenses. N – Exclude direct labor expenses.
Calculate Var. on Setup Labor	Determines whether the cost rollup includes setup labor expenses (cost component B2) in the total used to calculate variable setup overhead (cost component C3). Valid values are: Y – Include setup labor expenses. N – Exclude setup labor expenses.
Include Fixed Labor Overhead in cost	Controls whether the cost rollup creates cost component C4 (for fixed labor overhead) in the Cost Components table (F30026). Valid values are: Y – Yes. Create cost component C4. N – No. Do not create cost component C4.
Calculate Fixed on Direct Labor	Determines whether the cost rollup includes direct labor expenses (cost component B1) in the total used to calculate fixed labor overhead (cost component C4). Valid values are: Y – Include direct labor expenses. N – Exclude direct labor expenses.
Calculate Fixed on Setup Labor	Determines whether the cost rollup includes setup labor expenses (cost component B2) in the total used to calculate fixed setup overhead (cost component C4). Valid values are: Y – Include setup labor expenses. N – Exclude setup labor expenses.
Include Var. Machine Overhead in cost	Controls whether the cost rollup creates cost component C1 (for variable machine overhead) in the Cost Components table (F30026). Valid values are: Y – Yes. Create cost component C1. N – No. Do not create cost component C1.
Include Fixed Machine Overhead in cost	Controls whether the cost rollup creates cost component C2 (for fixed machine overhead) in the Cost Components table (F30026). Valid values are: Y – Yes. Create cost component C2. N – No. Do not create cost component C2.

34.5 Setting Up Work Order Activity Rules

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup (G3141), choose Work Order Activity Rules

Activity Rules for manufacturing can be set up for Work Orders and Rate Schedules to define beginning statuses and allowable status changes by Document Type and Work Order Type.

Branch/Plant in the Manufacturing Constants (P3009) activate Work Order Activity Rules for manufacturing. When the Activity Rules Flag (Y/N) field on the Manufacturing Constants video is set to Y, any programs that set or update the status of a Work Order or Rate Schedule, use these rules and status changes have to follow the allowed status flow. Attempted changes that are not allowed by the rules, generate an error that prevents the corresponding processing.

Before You Begin

Create a Branch/Plant

In Manufacturing Constants (P3009) set Activity Rules Flag (Y/N) field to Y to turn on Activity Rules.

To set up Work Order Activity Rules

On Work Order Activity Rules

Figure 34–6   Work Order Activity Rules screen
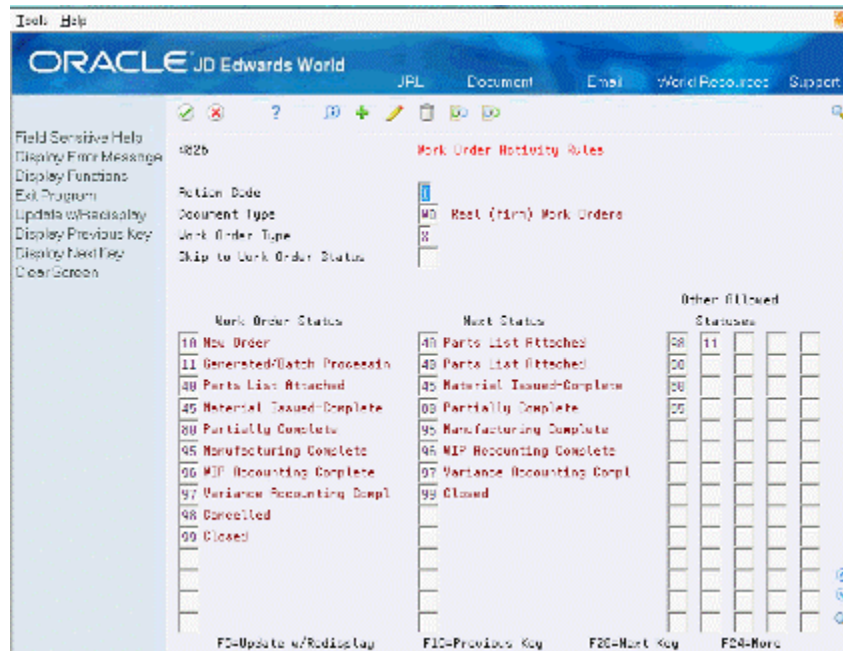
1. Complete the following field:

    ■   Document Type

    ■   Work Order Type (this may be left blank)

Field	Explanation
Work Order Status	Specifies the From statuses. Some Programs use the first value in this column as the beginning status when none is otherwise specified.
Next Status	Specifies the To statuses. Some programs use these values as default To statuses when you enter * in the update status processing option.
Other Allowed Statuses	Specifies up to five additional To Statuses for each From status.

See Also:

■ Setting Up Manufacturing Constants in *JD Edwards World Product Data Management - Discrete Guide*.

Processing Options

See Section 35.1, "Manufacturing Work Order Entry (P48013)."

See Section 35.2, "Generate and Print Work Orders (P31410)."

See Section 35.22, "Super Backflush (P31123)."

See Section 35.4, "Work Order Repost (P3190)."

See Section 35.14, "Work Order Inventory Issues (P31113)."

See Section 35.20, "Work Order Completion - Full (P31114)."

34.6 Setting Up Work Centers

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup (G3141), choose Enter/Change Work Centers

You can maintain general information about a work center, such as pay points, prime load codes, number of machines and workers, crew size, and backflush locations.

As an alternative to creating work centers manually, you can use the Work Center Master Revisions Z File (P3006Z) program to import an extensive amount of data into your system. See Appendix D, "Import Mass Data into Manufacturing Systems" for more information.

Before You Begin

Set up your work centers and dispatch groups as valid business units on the Single Business Unit Revisions form.

What You Should Know About

Topic	Description
System calculations	If you set the Modify Cost by Work Center Efficiency field to Y on Manufacturing Constants, the system multiplies the Efficiency field value by the direct labor cost to create a B4 cost type (labor efficiency) in the Item Cost Component Add-Ons table.

Topic	Description
Warehouse Management interface	If you use Warehouse Management and do not set up valid work center locations, the system interfaces with Warehouse Management when you attach a parts list to a work order. If you do set up valid work center locations before you attach a parts list, but the quantity exceeds the quantity you have in the work center, the system uses Warehouse Management to create a pick request for the remaining quantity to fill the work order request.
Maintaining rates for your work center	From Enter/Change Work Center, you can access Work Center Rate Revisions to maintain both simulated and frozen values for machine and labor hours. You can update the simulated rates, but not the frozen values. The system updates frozen values when you run the Frozen Cost Update program or when you run the Freeze Work Center Rates program.
	Other JD Edwards World manufacturing programs use these values, including Costed Routings, Labor Rate Variance reports, Direct Labor Efficiency reports, and Cost Rollup reports.
Maintaining business units and tracking costs	From Enter/Change Work Center, you can access Business Unit Information to maintain business units and track costs.
Crew size and backscheduling	The crew size is used to calculate the actual labor hours on the attached routing. For example, if in the Routing (P3003) the hours for labor is 2 and the crew size is 10, then when the routing is attached to a work order, the labor hours on the attached routing will be 20 hours. This calculation will only influence backscheduling for variable lead-time items as backscheduling for fixed lead-time items uses the "Average time per operation" formula.

To set up work centers

On Enter/Change Work Center

Figure 34–7   Enter/Change Work Center screen
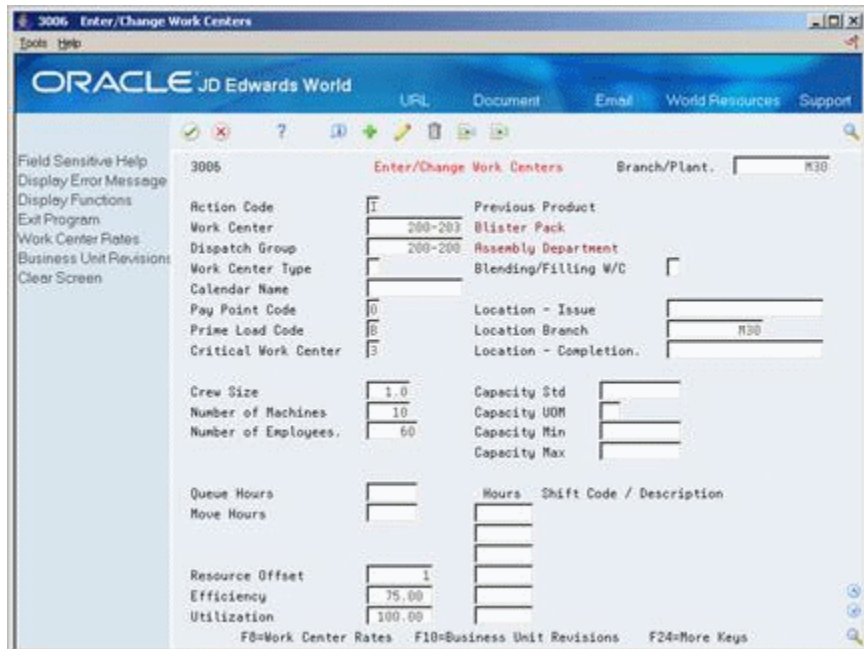
1. To locate the record for your work center, complete the following field:

   ■   Work Center

2. Complete the following optional fields:

■   Dispatch Group

■   Work Center Type (for repetitive manufacturing)

■   Calendar (for repetitive manufacturing)

■   Crew Size

■   Queue Hours

■   Move Hours

■   Replenishment Hours

■   Location - Issue

■   Location Branch

■   Capacity Standard (for repetitive manufacturing)

■   Capacity Unit of Measure (for repetitive manufacturing)

■   Capacity Minimum (for repetitive manufacturing)

■   Capacity Maximum (for repetitive manufacturing)

■   Hours (for repetitive manufacturing)

Field	Explanation
Work Center	An alphanumeric field 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, or branch/plant.
	You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.
	Security for this field can prevent you from locating business units for which you have no authority.
	Note: The system uses this value for Journal Entries if you do not enter a value in the AAI table.
Dispatch Group	A super category code to group work centers within an overall business unit. For example, you can group like machines operating out of several work centers that report to one business unit under a dispatch group.

Field	Explanation
Crew Size	The number of people who work in the specified work center or routing operation.
	The system multiplies the Run Labor value in the Routing Master table (F3003) by crew size during costing to generate total labor dollars.
	If the Prime Load Code is L or B, the system uses the total labor hours for backscheduling. If the Prime Load Code is C or M, the system uses the total machine hours for backscheduling without modification by crew size.
	Form-specific information
	For Shop Floor Control:
	If you leave the Hours field on the Routing Revisions form blank, the system uses the value entered in this field for leadtime and scheduling calculations.
Move Hours	The planned time in hours that is required to move the order from this operation to the next operation in the same work center.
	If the Routing Master values are blank, the default value comes from the work order routing. However, the system uses these values only for backscheduling variable leadtime items.
	Form-specific information
	If you leave the Hours field on the Routing Revisions form blank, the system uses the value entered in this field for leadtime and scheduling calculations.
Replenishment Hours	The time required before a consuming work center will have a replacement container of goods available from this supplying work center.
	This value is used only for KANBAN card processing in Shop Floor Control.
Work Center Type	Defines the type of work center. Possible values are:
	Blank Stand alone work center
	1. Production line in a repetitive environment
	2. Reporting work station within a production line
	Form-specific information
	For repetitive manufacturing, the system verifies the value is not valid as a work center for an operation from the routing.
Calendar	Enter the value of the calendar which corresponds to the calendar type. For example, if the calendar type is ROUTE, enter a valid route code to display the calendar for a particular route.
Capacity Max	The upper limit capacity beyond which a production line can not produce.
Capacity Min	The lower limit capacity beyond which the production line should not operate. This value is decided by management based on efficiencies, costs, etc.
Capacity UOM	Production unit of measure used to express the capacity of a production line. For example Stamps, injections, etc.
Capacity Std	The standard capacity level at which a production line usually operates.

Field	Explanation
Hours	The number of work hours that the manufacturing plant operates per day.
	Form-specific information
	For repetitive manufacturing, identify the number of work hours per shift for the specified work center. Use the six corresponding shift fields to identify all production line shifts for the specified work center.
Shift Code / Description	The number of work hours that the manufacturing plant operates per day.
	Form-specific information
	For repetitive manufacturing, identify the number of work hours per shift for the specified work center. Use the six corresponding shift fields to identify all production line shifts for the specified work center.

34.7 Setting Up Resource Units

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup (G3141), choose Enter/Change Resource Units

Resource unit information indicates the capacity of a work center on a given day. The system uses this information to backschedule work orders in shop floor control and to calculate available hours for capacity planning.

Before You Begin

Define workdays for the branch or plant in the shop floor calendar

What You Should Know About

Topic	Description
Generating resource units	You can manually change the values to account for scheduled or unscheduled downtime, additional shifts, or vacation time. However, each time you run Refresh Resource Units, the system recalculates the form values based on information in the Work Center Revisions, Shop Floor Calendar, and Manufacturing Constants tables and overwrites your manual changes.
	You cannot manually change the values if the shift value is an * to show total hours on Enter/Change Work Center.

Topic	Description
Refreshing information	Refresh Resource Units is a DREAM Writer program that recalculates the work center hours and updates them on the Enter/Change Resource Units form. The system recalculates the resource units for a work center based on information in the Enter/Change Work Center form, Shop Floor Calendar form, and Job Shop Manufacturing Constants table. You can create versions to recalculate the labor, setup, or machine hours and set the processing options to update different dates and branches. Any manual changes that you make to the hours on the Enter/Change Resource Units form is overwritten when you run the refresh process.
	The system multiplies the number of machines or employees from the Enter/Change Work Centers form by the work hours per day from the Job Shop Manufacturing Constants table for each work day defined on the Shop Floor Calendar for the branch.
	Resource unit calculations for machine and labor related hours are:
	■ Machine related hours (prime load code = C or M)
	Number of machines X Work hours per day
	■ Labor related hours (prime load code = L or B)
	Number of employees X Work hours per day

See Also:

- *JD Edwards World Product Data Management - Discrete Guide*,

- Setting Up the Shop Floor Calendar in the *JD Edwards World Product Data Management - Discrete Guide.*

To set up resource units

The Work With Resource Units form shows the work hours available each day of a specified month for a work center.

On Enter/Change Resource Units

Figure 34–8   Enter/Change Resource Units screen

1. Complete the following fields:

   ■   Branch

   ■   Unit of Measure

   ■   Work Center

   ■   Calendar Month/Year

   ■   Resource Unit

2. Complete the following optional fields:

   ■   Shift (for repetitive manufacturing)

   ■   Efficiency

   ■   Utilization

Field	Explanation
Unit of Measure	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.

Field	Explanation
Work Center	An alphanumeric field 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, or branch/plant.
	You can assign a business unit to a voucher, invoice, fixed asset, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.
	Security for this field can prevent you from locating business units for which you have no authority.
	Form-specific information
	This value identifies the available capacity for the work center.
Shift Code	A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.
	For payroll and time entry:
	If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.
	If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.
	Form-specific information
	You can view the total resources available for a given day by entering an asterisk (*) in this field.
	For repetitive manufacturing, enter a 1-6 to allow the system to display a specific shift's units, or enter a * to view the total resource availability for the specified time period. While this program displays the total units for the shift/day for work centers defined with a standard capacity and unit of measure in those units, the system stores the data in hours.
Efficiency	A user defined value that indicates how efficiently a work center operates. This value usually refers to people efficiency. When you enter a value in this field, and the Modify Cost by Work Center Efficiency field in the Job Shop Manufacturing Constants table (F3009) is set to Y, the system creates a new cost component (B4) from the cost calculated from the direct labor cost (B1). The system also uses this value to calculate rated capacity.
	Example: If the constant is set to Y, the value of this field is 80%, and the direct labor cost is 10, the system creates a B4 cost component for 2 in the Item Cost Component Add-Ons table (F30026).
	Enter percents as whole numbers, for example, enter 80% as 80.00.
Total Resource Units	The total resource units for the month.

Field	Explanation
Utilization	A percentage that indicates how intensively a work center is being used. This value usually refers to machine use. It is the ratio of the direct time charged for production activities to the planned hours. This value is also used to calculate rated capacity.
	Enter percents as whole numbers, for example, enter 80% as 80.00.

Processing Options

See Section 37.3, "Work Center Resource Units Refresh (P3007G)."

34.8 Setting Up Line and Item Relationships

Navigation

From Shop Floor Management (G31), enter 29

From Shop Floor Control Setup (G3141), choose Line/Item Relationships

The Line/Item Relationships program allows you to add, change, and delete data stored in the Line/Item Relationships table. These relationships include lines where an item is produced and the amount of resources consumed by an item on each line. Planning uses the record you flag as the default when the system creates rates. The specification for shift and period is only valid for the default line.

To set up line and item relationships

On Line/Item Relationships

Figure 34–9   Line/Item Relationships screen

Complete the following fields:

- Branch/Plant

- Item Number
- Line/Cell
- Capacity Units
- Default
- Shift
- Period

Field	Explanation
Line/Cell Identifier	Defines a production line or cell. Detailed work center operations can be defined inside the line or cell. For rate based manufacturing to use this value for reporting, this value must match the line cell in the header.
Resource units consumed	Indicates how many of the line's resource units are needed to produce one item.
Shift Code	A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.
	For payroll and time entry:
	If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.
	If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.
Month/Week/Day/Shift	A code that determines the frequency of the schedule. Valid codes are:
	1 – Monthly
	2 – Weekly
	3 – Daily
	4 – Per Shift

Part IV

Processing Options

This part contains these chapters:

- Chapter 35, "Discrete Manufacturing Processing Options,"

- Chapter 36, "Repetitive Manufacturing Processing Options,"

- Chapter 37, "System Setup Processing Options."

35

Discrete Manufacturing Processing Options

This chapter contains these topics:

- Section 35.1, "Manufacturing Work Order Entry (P48013),"
- Section 35.2, "Generate and Print Work Orders (P31410),"
- Section 35.3, "General User-Defined Codes (P0005A),"
- Section 35.4, "Work Order Repost (P3190),"
- Section 35.5, "Lot Master Revisions (P4108),"
- Section 35.6, "Lot Availability (P41280),"
- Section 35.7, "Lot Tracing and Tracking (P41203),"
- Section 35.8, "Item Reclassifications (P4116),"
- Section 35.9, "Part/Ingredient Availability (P30205),"
- Section 35.10, "Parts List Inquiry (P3121),"
- Section 35.11, "Item Shortage Workbench (P3128),"
- Section 35.12, "Shortage Revisions (P3118),"
- Section 35.13, "Work Order Component Shortage List (P31418),"
- Section 35.14, "Work Order Inventory Issues (P31113),"
- Section 35.15, "Component Scrap Transactions (P31116),"
- Section 35.16, "Manufacturing Scheduling Workbench (P31225),"
- Section 35.17, "Work Order Time Entry (P311221),"
- Section 35.18, "Manufacturing/Payroll Time Entry (P061181),"
- Section 35.19, "Production Status (P31226),"
- Section 35.20, "Work Order Completion - Full (P31114),"
- Section 35.21, "Release Backorders (P42117),"
- Section 35.22, "Super Backflush (P31123),"
- Section 35.23, "Work Order Purge (P4801P),"
- Section 35.24, "Kanban Consumption/Supply (P3157),"
- Section 35.25, "Kanban Status Override (P3163),"
- Section 35.26, "Co-/By-Products Produced by Process (P30201),"
- Section 35.27, "Item Availability (P41202),"

35.1 Manufacturing Work Order Entry (P48013)

Processing Option	Processing Options Requiring Further Description
BACKSCHEDULING INFORMATION:	
1. Enter the Unit of Measure Code.	HR for hours is the normal unit of measure for this field. If this option is left blank backscheduling will not be calculated correctly.
RECALCULATION OPTIONS:	
2. Enter a '1' to automatically recalculate Parts List and Routing dates, hours and quantities.	This updates the Work Order Variance file (F3102).
ITEM BRANCH/PLANT VALIDATION:	
3. Enter a '1' to validate for existing Branch/Item record.	
LOT NUMBER CONTROL:	
4. Enter a '1' to protect the lot number on the parts list.	
CHARGE TO BUSINESS UNIT DEFAULT:	
5. Enter a '1' to default the Charge to Business Unit from the Job number in the Business Unit Master file (F0006). If left blank, the Branch/Plant will be used.	
BILL AVAILABILITY:	
6. Enter the version of Bill Availability to be called. If left blank, 'ZJDE0001' will be used.	
DEFAULT VALUES:	
7. Document Type (Default is 'WO')	
8. Type (Optional)	
9. Priority (Optional)	
10. Beginning Status (Optional)	
CATEGORY CODES:	

Processing Option	**Processing Options Requiring Further Description**
11. Enter defaults for the following:	
Category Code 1 (Optional)	
Category Code 2 (Optional)	
Category Code 3 (Optional)	
Or, enter the Item Branch Class Code fields from which to retrieve values:	
Category Code 1 (Optional)	
Category Code 2 (Optional)	
Category Code 3 (Optional)	
SALES ORDER HOLD CODE:	
12. Enter the Hold Code for the related sales order if the work order quantity or date changes. If left blank, the sales order will not be updated.	
PURCHASE ORDER HOLD CODE:	
13. Enter the Hold Code to be updated to the related purchase order if the work order quantity or date changes. If left blank, the purchase order will not be updated. **Note:** The purchase order will be updated only if the work order routings are to be recalculated.	
FIELD DISPLAY:	
14. Enter a '1' by the following fields to activate them: Bill Type Routing Type	
PROCESS MANUFACTURING PROCESSING:	
15. Enter a '1' to create the Resource List records for Co-/By-Products when a process work order is entered. If left blank, Resource List records will be created when ingredients list is attached to the work order.	
INTERACTIVE BILL/ROUTING ATTACHMENT:	
16. Enter a '1' to automatically create the WO Routing Instructions when creating the WO Parts List on-line.	
17. Enter a '1' to automatically create the WO Parts List when creating the WO Routing Instructions on-line.	
SUBSTITUTE PROCESSING:	

Processing Option	Processing Options Requiring Further Description
18. Enter the substitute processing method to be used when creating the Work Order Parts List on-line.	
1 = Use substitutes for shortages.	
(Commitment processing must be used if '1' is selected.)	
2 = Display the substitute availability window when substitute quantity available can cover shortage.	
If left blank, substitute processing will not be done.	
COMMITMENT PROCESSING:	
19. Enter a '1' to bypass commitment processing when creating the Parts List on-line.	
If left blank, commitments will be processed per Commitment Control in Manufacturing Constants (P3009).	
ECO PROCESSING:	
20. Enter the version of the ECO header to call from Revisions Window.	
If left blank, 'ZJDE0001' will be used.	
SERIAL NUMBER PROCESSING:	
21. Enter the version of Assign Serial Numbers to call.	
If left blank, 'ZJDE0001' will be used.	
PRIOR REVISIONS:	
22. Enter a '1' to permit attaching parts lists at prior revision levels.	
WAREHOUSE PROCESSING:	
23. Enter the request processing mode.	
1 = Generate requests only	
2 = Generate requests and process using the subsystem	
If left blank, no pick requests will be generated.	
24. If processing pick requests using the subsystem, enter the version of Process Pick Requests (P46171) to call.	
25. Enter the default staging location for moving goods out of the warehouse.	
26. Enter a '1' if the default staging location should be checked for availability. If the part is available at the staging location a request will NOT be generated.	
Note: This option only applies to parts with no work center locations.	

Processing Option	Processing Options Requiring Further Description
GENERIC TEXT COPY OPTIONS:	
27. Enter a '1' to copy the component's generic text to the parts list.	
28. Enter a '1' to copy the operation's generic text to the work order routing.	
OBSOLETE ITEMS:	
29. Enter the cross reference code for retrieving item replacements for obsolete items.	
USER-DEFINED PROGRAM:	
30. Enter the program name to be called when the function key is selected from the Parts/Ingredients List program (P3111).	
PHANTOM OPERATION SEQUENCE NUMBER:	
31. Enter a '1' to default the phantom's (parent) operation sequence for the components on the parts list. If left blank, the component's operation sequence will be used.	
FROZEN COST FOR ITEM:	
32. Enter a '1' to get a hard error if no frozen cost exists for the item. If left blank (default), a warning will be issued instead.	
WORK ORDER START DATE UPDATE:	
33. Enter a '1' to update the Work order Start Date with the Start Date of the first routing operation for variable Lead time. If left blank, no updating will be performed.	
CHARGE TO CC (COST CENTER) FIELD:	
34. If the Parent WO Number field is input as part of a Component Work Order, populate the Charge to CC field (MCU) by entering a: ' ' to retrieve from the Parent's Work Order Charge to CC field (MCU). Blank is the default. '1' to retrieve from the Component Work Order Branch/Plant field (MMCU).	
LOT EXPIRATION DATE:	

Processing Option	Processing Options Requiring Further Description
35. Select the date that will be used to determine the eligibility of lot /serial numbered components. Only lots with effective dates less than or equal to the date specified AND expiration dates (based on the item's commitment date method) greater than or equal to the date specified will be considered. ' ' = Parts list required date (default) '1' = Work order start date '2' = Work order requested (completion) date	
AUTOMATIC LOT NUMBER GENERATION:	
36. Enter a '1' to automatically generate a lot number upon work order creation for items with a Lot Process Type of 1 or 2.	
PURCHASE ORDER INFORMATION:	
37. Enter the version of Write Purchase Orders program (P3420). If left blank, 'ZJDE0002' will be used.	
QUALITY MANAGEMENT:	
38. Enter a '1' to consolidate POs by Branch/Plant and Supplier. If left blank, a PO will be generated for each outside operation.	
39. Enter the version of Test Results Revisions program (P3711). If left blank, 'ZJDE0002' will be used.	

35.2 Generate and Print Work Orders (P31410)

Processing Option	Processing Options Requiring Further Description
GENERATION INFORMATION:	
1A. Enter one of the following: 1 = Parts List only 2 = Routing only 3 = Both Parts List and Routing If left blank, neither parts list nor routing will be generated.	**Note**: If using Backflush to Work Center location in Manufacturing Constants, then routings must be attached first for commitments to be made correctly.
1B. Enter a '1' to prevent the update of existing parts list and routing instructions. Commitment and substitute processing of parts lists will occur as usual. If left blank, existing parts list and/or routing will be rewritten.	**Note**: If transactions have occurred against the order the parts list and routing should be protected from update.

Processing Option	Processing Options Requiring Further Description
2. Enter a '1' to use the W.O. Date for effectivity checking.	
If left blank, the W.O. Start Date is used.	
UPDATE INFORMATION:	
Enter the new Status Code for the work order/rate header. If left blank, status will not be changed. Enter '*' to update according to Work Order Activity Rules.	
WORK ORDER PRINT INFORMATION:	
4. Enter a '1' to print work orders.	
If printing work orders:	
PARTS LIST PRINT INFORMATION:	
5. Enter a '1' to print Parts List	
6. Enter a '1' to print the 2nd line of information, which is scrap and related work center.	
7. Enter a '1' to print Parts List on a new page.	
8. Enter the version of the Parts List program (P31415).	
If left blank, 'ZJDE0001' will be used.	
9. Enter a '1' to print a consolidated Parts List.	
ROUTING PRINT INFORMATION:	
10. Enter a '1' to print the Routing.	
11. Enter a '1' to print Routing on a new page.	
12. Enter the version of the Routing Instructions program (P314151).	
If left blank, the operation sequence is used.	
BACKSCHEDULING INFORMATION:	
13. Enter the Unit of Measure for backscheduling.	**Note**: Hours is the standard unit of measure for backscheduling. If this option is left blank, backscheduling will not calculate correctly.
SHOP PACKET SUMMARY INFORMATION:	
14a. Enter a '1' to print the Shop Packet Summary.	
14b. Enter the version of the Shop Packet Summary program (P31416). If left blank, 'ZJDE0001' will be used.	
SHORTAGE REPORT INFORMATION:	
15. Enter the version of the Shortage Report program (P31418).	
If left blank, no shortage report will be printed.	
BAR CODE INFORMATION:	

Processing Option	Processing Options Requiring Further Description
16. Enter the version of the Bar Code Print program (P31413) for the desired print overrides.	
INVENTORY ISSUE INFORMATION:	
17. Enter the version of Batch Inventory Issues program (P31420).	
If left blank, Inventory Issues will not be called.	
PURCHASE ORDER INFORMATION:	
18. Enter the version of Write Purchase Orders program (P3420).	
If left blank, 'ZJDE0002' will be used.	
18a. Enter a '1' to consolidate POs by Branch/Plant and Supplier. If left blank, a PO will be generated for each outside supplier.	
SALES ORDER INFORMATION:	
19. Enter the new Line Type for kit and configured components. This is used to avoid issuing inventory from Sales Order processing. The Line Type used should be inventory interface 'N'.	
If left blank, Line Type will not be changed.	
20. Enter the Next Status for Sales Order kit and configured component lines. (This is used to bypass the normal flow of the order, i.e., Pick Slip.)	
If left blank, next status will not be changed.	
21. Enter a '1' to delete the existing Work Order Text and copy the Sales Order Text to the Work Order.	
Enter a '2' to append the Sales Order Text to the end of the existing Work Order Text.	
If left blank (default) the Work Order Text will not be updated.	
CONFIGURED ITEM COSTS:	
22. Enter one of the following options for calculating the standard cost for configured items in the Work Order Variance file (F3102).	
1 = Always calculate the standard cost	
2 = Only calculate the standard cost if it has not already done (no variance records exist)	
If left blank, standard cost will not be calculated.	
BOM SUBSTITUTES:	
23. Enter '1' to allow the use of Bill of Material substitutes in case of a shortage.	
PURCHASING JOURNAL ENTRIES:	

Processing Option	Processing Options Requiring Further Description
24. Enter a '1' to load the Work Order Number into the Subledger field of the purchasing J/E's.	
BLANKET/QUOTE PROCESSING:	
25. Enter a '1' for automatic blanket order release processing.	
BUILD AGAINST PRIOR REVISIONS:	
26. Enter a '1' to permit building work orders against prior revision levels. The revision level in the work order header (F4801) will be used to select the parts list to attach to the work order. If left blank, prior revision level bills will not be selected.	
WAREHOUSE PROCESSING:	
27. Enter the request processing mode: 1 = Generate requests only 2 = Generate requests and process using the subsystem. If left blank, requests will not be generated.	
28. If processing pick requests using the subsystem, enter the version of Process Pick Requests (P46171) to call. If left blank, 'XJDE0002' will be used.	
29. Enter the default staging location for moving goods out of the warehouse.	
30. Enter a '1' if the default staging location should be checked for availability. If the part is available at the staging location a request will NOT be generated. **Note:** This option only applies to parts with no work center locations.	
GENERIC TEXT PRINT OPTIONS:	
31. Enter a '1' to print the component's generic text on the Parts List.	
32. Enter a '1' to print the operation's generic text on the Routing.	
BAR CODE INFORMATION:	
34. Enter the format for bar code printing. 1 = Code 3 of 9 (Code 39) 2 = Code 128 If left blank, bar codes will not print.	
COMMITMENT PROCESSING:	

Processing Option	Processing Options Requiring Further Description
35. Enter a '1' to bypass commitment processing when creating the Parts List. If left blank, commitments will be processed per Commitment Control in Manufacturing Constants (P3009).	
QUALITY MANAGEMENT:	
36. Enter '1' to print Manufacturing Specifications.	
37. Enter the version of the Manufacturing Specifications print program to call (P37470). If left blank, 'ZJDE0001' will be used.	
PHANTOM OPERATION SEQUENCE NUMBER:	
38. Enter a '1' to default the phantom's (parent) operation sequence for the components on the parts list. If left blank, the component's operation sequence will be used.	
WORK ORDER START DATE UPDATE:	
39. Enter a '1' to update the Work order Start Date with the Start Date of the first routing operation for variable lead time. If left blank no updating will be performed	
LOT EXPIRATION DATE:	
40. Select the date that will be used to determine the eligibility of lot/ /serial numbered components. Only lots with effective dates less than or equal to the date specified AND expiration dates (based on the item's commitment date method) greater than or equal to the date specified will be considered. ' ' = Parts list required date (default) '1' = Work order start date '2' = Work order requested (completion) date	
AUTOMATIC LOT NUMBER GENERATION:	
41. Enter a '1' to automatically generate a lot number upon co/by products creation for items with a lot process type of 1 or 2.	

35.3 General User-Defined Codes (P0005A)

Processing Option	Processing Options Requiring Further Description
DEFAULT CODE/TYPE:	
1. Enter the desired Install System Code.	
2. Enter the desired Record Type.	

35.4 Work Order Repost (P3190)

Processing Option	Processing Options Requiring Further Description
PROCESSING CONTROL:	
1. Enter the Status for update. Any work order or rate with a status less than this value will be reposted. If left blank, status '99' will be used.	Enter the Status for update. Any work order or rate with a status less than this value will be reposted. This means that commitments will be cleared and rewritten for any work order less than this status. If left blank, status '99' will be used.
AUDIT FIELDS:	
2. Enter '1' to skip updating the date and time audit fields (Date Updated, Time of Day) on the Item Location file (F41021). If left blank, Date Updated & Time of Day will be updated whenever an Item Location record is updated.	

35.5 Lot Master Revisions (P4108)

Processing Option	Processing Options Requiring Further Description
PROCESS CONTROL:	
1. Enter a '1' to update the lot status for all lot locations when updating the lot status or a '2' to display all lot locations and indicate for which locations the lot status needs to be updated. If left blank, only the lot master lot status will be updated.	
2. Enter a '1' to protect the lot status from being updated.	
3. Enter a '1' to protect the lot grade from being updated.	
4. Enter a '1' to protect the lot potency from being updated.	
DEFAULT PROCESSING:	
5. Enter the document type to be used when updating the lot grade. If left blank, the default document type 'CG' will be used.	
6. Enter the document type to be used when updating the lot potency. If left blank, the default document type 'CP' will be used.	
PERCENTAGE OF LIFE REMAINING:	
7. Enter a '1' to calculate/display the Percentage of Life Remaining. If left blank, it will not be displayed.	

Processing Option	Processing Options Requiring Further Description
8. Enter a '1' to calculate/display Days Until Expiration. If left blank, it will not be displayed.	
QUALITY MANAGEMENT:	
9. Enter the version of Test Results Revisions (P3711) to call. If blank, 'ZJDE0001' will be used.	

35.6 Lot Availability (P41280)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
1. Enter the Version of the Trace/Track Inquiry to call.	
2. Enter the Version of Item Master Revisions (P4101) to call.	
3. Enter the Version of Work Order Entry (P48013) to call.	
4. Enter the Version of Branch/Plant Item Information (P41026) to call.	
5. Enter the Version of Lot Master Revisions (P4108) to call.	
6. Enter the Version of the Test Results Revision (P3711) to call. If left blank,'ZJDE0001' will be used.	
FIELD DISPLAY:	
7. Enter a '1' to protect Lot Status from being updated.	
GRADE AND POTENCY:	
8. Enter a '1' to display the grade range. If left blank, no range will be displayed for selection.	
9. Enter a '1' to display the potency range. If left blank, no potency will be displayed for selection.	
DATA SORT:	
10. Enter a '1' to sort lot records by the lot expiration date when an item number and branch/plant are specified. If left blank, records will be sorted by lot number.	

35.7 Lot Tracing and Tracking (P41203)

Processing Option	Processing Options Requiring Further Description
Enter a '1' to track lot usage.	
Default is to trace lot usage.	
Enter '1' to use 15 character lot, leave blank to default to 12 character	

35.8 Item Reclassifications (P4116)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES :	
1. Document type for item change.	
2. Enter a '1' to default the Location and Lot from the primary Location	
Note: When using blank secondary locations, this processing option is invalid.	
PROCESS CONTROL :	
3. Method for assigning expiration date to newly created lots.	
(If left blank, method 1 will be used.)	
1 = Assign manually.	
2 = Newest From Expiration Date.	
3 = Oldest From Expiration Date.	
4 = Transaction date + shelf life.	
DREAM WRITER VERSIONS:	
Enter the version of each program to be used.	
If left blank, ZJDE0001 will be used.	
4. Journal Entries (P09101)	
5. G/L Functional Server (XT0911Z1)	
6. Item Search (P41200)	
7. Item Ledger (P4111)	
8. Warehouse Requests (P46100)	
PROCESSING CONTROL :	
9. Enter a '1' to protect costs or a '2' to make costs non-display.	
If left blank, the update of costs is allowed.	
10. Enter a '1' to protect Lot Number, Lot Expiration Date, and Lot Status.	
If left blank, the fields will remain input capable.	

Processing Option	Processing Options Requiring Further Description
11. Enter a '1' to run in summary mode. G/L accounts will be summarized within each document number. If run in detail, G/L accounts will be produced for each line.	
12. Enter a '1' to allow transfers from held lots.	
13. Enter a '1' to allow transfers greater than quantity available. **Note:** This option will allow your inventory balance to go negative.	
14. Method of quantity validation for from and to quantities within a transaction. ' ' - No validation performed. '1' - Warning if out of balance. 2' - Error if out of balance.	
15. Enter which item search screen is to be used to return items. 1 = Item Search Window allowing the return of multiple items. 2 = Full item search screen with query capability. (If left blank the item search screen allowing the return of multiple items will be used.)	
16. Enter '1' to use 15 character lot, leave blank to default to 12 characters.	

35.9 Part/Ingredient Availability (P30205)

Processing Option	Processing Options Requiring Further Description
SAFETY STOCK:	
1. Enter a '1' if safety stock is to be subtracted from the Quantity on Hand.	
DEFAULT VALUES:	
2. Enter the Bill Type. If left blank, 'M' will be used.	
3. Enter a '1' to prevent displaying phantom items when exploding the bill of material.	
4. Enter the display mode: 1 - Single Level (All Items) 2 - Multi Level (All Items) 3 - Single Level (Negative Items) 4 - Multi Level (Negative Items)	

Processing Option	Processing Options Requiring Further Description
5. Enter a '1' to prevent displaying the components for a Subassembly with a Stocking Type of 'P'.	
If left blank, the components will display on the video.	
6. Enter a '1' to display decimals for Required, On Hand, and Available quantities. If left blank, these quantities will be displayed without decimals.	

35.10 Parts List Inquiry (P3121)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
1. Purchase Order Inquiry (P430301)	
2. Supply/Demand Inquiry (P4021)	

35.11 Item Shortage Workbench (P3128)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
1. WO Inventory Issues (P31113)	
2. Shortage Revisions (P3118)	
DEFAULT VALUES:	
3. Document Type (Default is 'WO')	

35.12 Shortage Revisions (P3118)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
1. Open Work Orders (P31225)	
2. Open Purchase Orders (P430301)	
3. Shortage Workbench (P3128)	

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
4. Document Type (Default is 'WO')	

35.13 Work Order Component Shortage List (P31418)

Processing Option	Processing Options Requiring Further Description
REPORT FORMAT:	
1. Enter a '1' to print only parts with shortages. If left blank, all items will be printed.	

35.14 Work Order Inventory Issues (P31113)

Processing Option	Processing Options Requiring Further Description
UPDATE INFORMATION:	
1. Enter the Document Type associated with an inventory issue.	
2. Enter the Status Code for update to the work order header. If left blank, the header will not be updated.	
3. Enter the default value for the Material Status Code. If left blank, material status will not be updated.	
4. Enter the Status Code beyond which issues cannot be made.	
INQUIRY INFORMATION:	
5. Enter a '1' to display only valid Issue Type Codes. If left blank, all Parts List items will display.	
6. Enter a '1' to preload all screen detail lines with the selection value to process the issue.	
OPERATION SEQUENCE FIELD:	
7. Enter a '1' to display operations that equal the entered Operation Sequence. If left blank, the value will be used as a 'Skip To' field.	
REQUESTED DATE FIELD:	
8. Enter a '1' to display operations that equal the entered Requested Date. If left blank, the value will be used as a 'Skip To' field.	
EDIT INFORMATION:	

Processing Option	Processing Options Requiring Further Description
9. Enter a '1' to give an error if the quantity on hand is negative.	NOTE: If another program calls a blind execution of this program, P31113, this message will not display and material will not issue.

ITEM SALES HISTORY INFORMATION:

10. Enter a '1' to update Item Sales History (F4115) file.

HOLD CODE TO ISSUE:

11. Enter the lot hold codes (up to 5) that are acceptable for inventory issues, or enter a '*' to allow issues to all held lots.

If left blank, issues to held lots will not be allowed.

SHORTAGE MAINTENANCE:

12. Enter the version of Shortage Maintenance (P3118) to be called.

If left blank, 'ZJDE0001' will be used.

UNPLANNED ISSUES:

13. Enter '1' to allow for unplanned issues.

14. Enter a '1' to default the Location and Lot from the Primary Location.

If left blank, the user must specify a valid Location and Lot.

LOT NUMBER:

15. Enter '1' to protect the lot number from entry.

PROCUREMENT INFORMATION:

16. Enter the document type for purchase orders. (Default is 'OP')

17. Enter the version of the Open Inquiry Window program (P3160W) to use.

If left blank, 'ZJDE0001' will be used.

18. Enter the default route type to be used to search for a receipt route. (Default is 'OT')

RECEIPT ROUTINGS:

19. Enter the value of the default route to be used for items without a receipt routing.

20. Enter the version of Receipt by PO/Item/Account (P4312) to call.

If left blank, 'ZJDE0008' will be used.

MOVE AND DISPOSITION:

21. Enter the version of Move and Disposition (P43250) to call.

If left blank, 'ZJDE0002' will be used.

FOR STANDARD COSTING:

Processing Option	Processing Options Requiring Further Description
22. Enter a '1' to use the cost from F4105 for manufacturing accounting.	
If left blank, use cost from F30026 for manufacturing accounting.	
OPTION TO CLOSE A LINE	
23. Enter a '1' to prevent closing a line (option 9) with issued quantities. If left blank closing any line will be allowed.	

35.15 Component Scrap Transactions (P31116)

Processing Option	Processing Options Requiring Further Description
DEFAULT FORMAT:	
1. Enter a '1' for Item Number entry.	
If left blank, Work Order Number entry will be used.	
DEFAULT VALUES:	
2. Enter the Item Ledger Transaction date.	
If left blank, the system date will be used.	
3. Reason Code (Optional)	
4. Enter the Document Type associated with the Component Scrap Transaction.	
SERIAL NUMBER PROCESSING:	
5. Enter the Document Type to use for Serial Number Issues.	
If left blank, 'IM' will be used.	

35.16 Manufacturing Scheduling Workbench (P31225)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
1. Sales Order Inquiry (P42045)	
2. Purchase Order Inquiry (P430301)	
3. a Work Order Completions (P31114)	
3. b Super Backflush (P31123)	
4. Work Order Entry (P48013)	
5. Sales Order Entry (P4211)	
6. Purchase Order Entry (P43111)	

Processing Option	Processing Options Requiring Further Description
7. Work Order Issues (P31113)	
DISPLAY OPTIONS:	
8. Enter a '1' to display Requested Date or enter a '2' to display Start Date.	
(Default is '1')	
9. Enter a '1' to sequence the records by Requested date.	
Enter a '2' to sequence the records by Start date.	
If left blank, the sequence will be based on values for the Customer, Parent Work Order Number, Cross-Reference, Item or Planner fields.	
DEFAULT VALUES:	
10. Category Code 1 (Optional)	
11. Category Code 2 (Optional)	
12. Category Code 3 (Optional)	
13. Type (Optional)	
14. Priority (Optional)	
15. Planner Number (Optional)	
16. From Status (Optional)	
17. Thru Status (Optional)	
18. Item Number (Optional)	
19. Customer Number (Optional)	
20. Reference (Optional)	
21. Document Type (Optional)	
PROCESS MANUFACTURING PROCESSING:	
22. Enter a '1' to automatically create the WO Routing Instructions when creating the WO Parts List on-line.	
23. Enter a '1' to automatically create the WO Parts List when creating the WO Routing Instructions on-line.	
SUBSTITUTE PROCESSING:	
24. Enter the substitute processing method to be used when creating the Parts List on-line.	
1 = Use substitutes for shortages.	
(Commitment processing must be used if '1' is selected.)	
2 = Display the substitute availability window when substitute quantity available can cover shortage.	
If left blank, substitute processing will not be done.	
COMMITMENT PROCESSING:	

Processing Option	Processing Options Requiring Further Description
25. Enter a '1' to bypass commitment processing when creating the Parts List on-line.	
If left blank, commitments will be processed per Commitment Control in Manufacturing Constants (P3009).	
WORK ORDER PARTS LIST INFORMATION:	
26. Enter the version of the Work order Parts List Quantities Inquiry(P3121).	
If left blank, 'ZJDE0001' will be used.	
QUALITY MANAGEMENT:	
27. Enter the version of Test Results Revisions (P3711) to call.	
If left blank, 'ZJDE0002' will be used.	

35.17 Work Order Time Entry (P311221)

Processing Option	Processing Options Requiring Further Description
DISPLAY INFORMATION:	
1. Enter a '1' for the screen to be displayed in Order Number format.	
If left blank, the screen will be displayed in Employee format.	
UPDATE INFORMATION:	
2. Enter the document type associated with shop floor activity.	
EDIT INFORMATION:	
3. Enter the status code beyond which shop floor activity cannot be entered.	
4. Enter a '1' to verify that, for a given operation, the total of the quantity completed plus scrapped does not exceed the Quantity At Operation.	
5. Enter a '1' to prevent the employee rate from being written to the screen.	
QUALITY MANAGEMENT:	
6. Enter the version of Test Results Revisions (P3711) to call.	
If left blank, 'ZJDE0002' will be used.	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
7. Scheduling Workbench (P31225)	
8. Production Status (P31226)	

35.18 Manufacturing/Payroll Time Entry (P061181)

Processing Option	Processing Options Requiring Further Description
1. Enter 'E' to use the Employee Occupational Pay Rate Table or Enter 'U' to use the Union Rate Table. If neither 'E' nor 'U' is entered, blank is the default and the Employee Master hourly rate will be used.	
2. If the Union Table is selected, Enter the Pay Type to be used for each of the following categories. If the Occupational Table is selected, only enter the Pay Type for "Regular". Regular - Blank Overtime - A Double time - B Triple time - C Holiday - D	
3. Enter '1' to have batch numbers automatically assigned. (F13=Invalid)	
4. Enter '1' to have heading date and batch to be loaded from the first subfile record.	
5. Enter '1' to display batch statistics on request.	
6. Enter '1' to prevent changes and deletes to records locked to another user.	
7. Enter '1' to edit Pay Type from Classification/Pay X-Ref.	
8. Enter '1' to use Zero Billing Rate.	
9. Enter '1' to load Pay Type Desc. into Explanation field (YTEXR).	
DISPLAY FORMATTING:	
10. Select the default screen format: ' ' = Standard Time Entry '1' = Enhanced Subledgers	
---MANUFACTURING INFORMATION---	
11. Enter the Document Type associated with Shop Floor Activity.	
12. Enter the Status Code beyond which Shop Floor Activity cannot be entered.	
13. Enter the Version of Shop Floor Hours and Quantity Entry to call. (Default is version ZJDE0001)	

Processing Option	Processing Options Requiring Further Description
14. Enter a '1' to use the Employee Pay Instructions Table - F06106.	
If left blank, the Employee Master hourly rate will be used.	
15. Enter a '1' for HH:MM:SS format.	
If left blank, decimal format will be used (HH.MM).	

35.19 Production Status (P31226)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. From Status (Optional)	
2. Through Status (Optional)	
3. The number of days to add to today's date for the Thru date (Optional)	
DREAM WRITER VERSIONS:	
Enter the Dream Writer Version of the program to be called via the selection options. If left blank, 'ZJDE0001' will be used.	
4. Work Order Header (P48013)	
5. Parts List Inquiry (P3121)	

35.20 Work Order Completion - Full (P31114)

Processing Option	Processing Options Requiring Further Description
INVENTORY INTERFACE:	
1. Enter the Document Type associated with an Inventory Completion.	
2. Enter the Document Type associated with an Inventory Scrap.	
WORK ORDER ISSUES:	
3. Enter a '1' to call the Work Order Issues program.	
4. Enter the DREAM Writer version of Work Order Issues to be called.	
If left blank, 'ZJDE0001' will be used.	
WORK ORDER HEADER:	
5. Enter the Status Code for update to the work order header. (optional)	
EDIT INFORMATION:	

Processing Option	Processing Options Requiring Further Description
6. Enter the Status Code beyond which completions may not be made.	
LOT HOLD CODES:	
7. Enter the Lot Hold Codes (up to 5) to allow completions to, or enter a '*' to allow completions to all held lots. If left blank, completions will not be allowed to held lots.	
SALES ORDER OPTIONS:	
8. Select one of the following: 1 = Sales Order Number will default to the Work Order Completion Lot 2 = Sales Order Number will default to the Work Order Completion Location, and the Sales Order Line Number will default to the Work Order Completion Lot 3 = Work Order Number will Default to the Work Order Completion Lot	
9. Enter a '1' to update the Sales Detail fields (Lot Number & Location) as defined in Option 8. If left blank, Sales Detail will not be updated. NOTE: Processing Option 9 must be used in conjunction with Option 8. If Option 8 is blank, then Option 9 must also be blank.	
10. Enter an override Sales Order Next Status or leave blank to use the Sales Order Next Status from the Order Activity Rules.	
11. Enter a '1' to update the Sales Next Status Code on the related sales order.	
12. Enter a '1' to display the Back- Order Release screen for completed backordered items. If left blank, backordered sales orders will not be displayed.	
13. Enter the DREAM Writer version of Backorder Release (P42117) to be called. If left blank, 'ZJDE0001' will be used.	
SHORTAGE WORKBENCH:	
14. Enter the DREAM Writer version of Shortage Workbench to be called. If left blank, 'ZJDE0001' will be used.	
RECEIPT ROUTING:	
15. Enter a '1' to initiate the receipt routing process. If left blank, all items will be completed directly into stock.	
LOT/SERIAL NUMBER OPTIONS:	

Processing Option	Processing Options Requiring Further Description
16. Enter the Lot/SN control:	
Blank = Lot/SN protected once the value is specified.	
1 = Allow overriding the Lot/SN during completions.	
2 = Protect the Lot/SN from entry	
3 = Allow override and automatic generation of serial number for items with lot process type 5, or 6 (when field is left blank or cleared).	
WORK ORDER ENTRY:	
17. Enter the DREAM Writer version of Work Order Entry to be called.	
If left blank, 'ZJDE0001' will be used.	
PROCESS MANUFACTURING OPTIONS:	
18. Enter a '1' to allow unplanned Co/By-product completions.	
19. Enter a '1' to issue ingredients for each Co/By-product separately.	
If left blank, ingredient issues will be consolidated for the process.	
WAREHOUSE PROCESSING:	
20. Enter the directed putaway mode:	
1 = Request putaway only	
2 = Request putaway and process using the subsystem	
If left blank, no putaway requests will be generated.	
21. If processing putaway requests through the subsystem, enter the version of Putaway Requests (P46171) to call.	
If left blank, 'ZJDE0001' will be used.	
WAREHOUSE PROCESSING (Continued):	
22. Enter a '1' to allow completions with components in warehouse. If left blank, completions will not be allowed with any components at an 07 Material Status.	
SERIAL NUMBER PROCESSING:	
23. Enter a '1' to allow a completion to a serial number that exists in the system with a zero quantity.	
24. Enter a '1' to default to multiple associations format window.	
If left blank, single format will default.	
25. Enter the Document Type used for Serial Number Issues.	
If left blank, 'IM' will be used.	

Processing Option	Processing Options Requiring Further Description
QUALITY MANAGEMENT:	
26. Enter the version of Test Results Revisions (P3711) to call.	
If left blank, 'ZJDE0002' will be used.	
BRANCH/PLANT CONTROL:	
27. Enter a '1' to display the completion Branch/Plant field.	
LOT EXPIRATION DATE:	
28. Enter a '1' to display Lot Expiration Date.	
The default is blank to not display the lot expiration date.	
ITEM COST:	
29. Enter a '1' to not allow the completion for the item without cost.	
If left blank, completion will be performed.	
OVER COMPLETION:	
30. Enter a '1' to not allow over completion beyond the tolerance defined below. If left blank, only a warning message will be received upon over completion.	
31. Enter the over completion tolerance.	
Example: enter 10 if you want to be able to over complete up to 10%.	
Over completion tolerance is used in conjunction with a value of '1' in PO # 30.	
If left blank, only a warning message will be received upon over completion.	

35.21 Release Backorders (P42117)

Processing Option	Processing Options Requiring Further Description
STATUS CODES:	
1. Next Status to Select (Optional)	
2. Override Next Status (Optional)	
DISPLAY OPTIONS:	
3. If inquiring by Item Number, enter a '1' to only display those Backorders that can be completely filled.	
4. If inquiring by Item Number, enter a '1' to sequence by Priority Code.	
If left blank, sequence will be by Promised Ship Date.	
DISPLAY OPTIONS (Continued):	

Processing Option	Processing Options Requiring Further Description
5. Enter a '1' to display kit component lines. If left blank, only the kit parent will display and the components will be released along with the parent.	
6. Enter a '1' to add back in the Quantity on Backorder in Quantity Available calculations. If left blank, the Quantity on Backorder will not be added in.	When an order backorders, the quantity is logged as both a soft commitment and a backordered quantity in the Item Balance file (F41021). If you have set up your system to subtract soft committed quantities from on-hand quantities to determine availability, you'll want to set this option to 1; otherwise, the system may not release backorders for which there is enough quantity available to release. For example, if the on hand quantity for an item is 10 and the backordered/soft committed quantity is 10, then availability equals zero. You'll want the program to add the backordered quantity of 10 to availability so the system recognizes there's enough quantity available to release the order. You can view quantity and commitment balances for an item in Detailed Availability (P41023).
7. Enter a '1' to display Customer Information. If left blank, Item Information will display.	
DISPLAY OPTIONS (Continued):	
8. Enter a '1' to display orders on hold. If left blank, orders on hold will not display.	
RELEASING OPTIONS:	
9. Enter a '1' to only soft commit Released Backorders. If left blank, Released Backorders will be hard committed.	If you leave this option blank, the P42117 calls the P42997 to hard commit released order quantities.
10. Enter a '1' to allow Backorders to be released when Quantity to Ship is greater than Quantity on Backorder.	
RELEASING OPTIONS (Continued):	
11. Enter a '1' to allow Backorders to be released when Quantity on Hand is zero. If left blank, Backorders will not release when Quantity on Hand is zero.	
12. Enter a '1' to update Released Backorders with the most current cost of the item. If left blank the original cost of the item on the Sales Order will be used.	
CREDIT PROCESSING:	
13. Enter a code for credit checking. If left blank, no credit checking will be done.	
ORDER HOLD PROCESSING:	

Processing Option	Processing Options Requiring Further Description
14. Enter the partial order hold code that will be released when an order is completely filled.	
AUTOMATIC PROCESSING:	
15. Enter a '1' to print pickslips or a '2' to print invoices through the subsystem.	
VERSION OPTIONS:	
Enter the version for each program.	
If left blank, ZJDE0001 will be used.	
16. Sales Order Entry (P4211)	
17. Customer Service Inquiry (P42045)	
18. Item Availability (P41202)	
WAREHOUSE PROCESSING:	
19. Enter the request processing mode:	
' ' - No pick requests	
'1' - Generate requests only	
'2' - Generate requests and process using the subsystem.	
20. If processing pick requests using the subsystem, enter the DREAM Writer version to use.	
If blank, XJDE0002 is used.	
(See Form ID P46171.)	
21. Enter an override next status for sales order lines for which requests have been generated.	
LOT PROCESSING:	
22. Enter '1' to include immature lots (those not yet in effect) in the calculation of availability.	
If left blank, an immature lot will not be counted as available.	

35.22 Super Backflush (P31123)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Operation Status for partial completions (Optional)	
2. Operation Status for full completions (Optional)	
3. Status Code for update to the Work Order Header.	
If left blank, the header will not be updated.	
WORK ORDER ISSUES INFORMATION:	

Processing Option	Processing Options Requiring Further Description
4. Enter the Version of the Material Issues Program to call.	
If left blank, 'ZJDE0001' will be used.	
5. Enter a '1' to call the Material Issues Program in a blind mode.	
SHOP FLOOR ACTIVITY INFORMATION:	
6. Enter the Version of the Hours and Quantity Program to call.	
If left blank, 'ZJDE0001' will be used.	
7. Enter a '1' to call the Hours and Quantity Program in a blind mode.	
8. Enter a '1' to automatically update hours & quantities data. **Note:** This eliminates the need for a separate interactive or batch update but the data will not be available for review on the Hours and Quantities screen.	
WORK ORDER COMPLETION INFORMATION:	
9. Enter the Version of the Work Order Completions Program to call.	
If left blank, 'ZJDE0001' will be used.	
10. Enter a '1' to call the Work Order Completion Program in a blind mode.	
QUANTITY COMPLETION CONTROL:	
11. Enter a '1' to verify that, for a given operation, the total of the quantity completed plus scrapped does not exceed the 'Quantity At Operation.' If left blank, the verification is not performed.	
QUALITY MANAGEMENT:	
12. Enter the version of Test Results Revisions (P3711) to call. If left blank, 'ZJDE0002' will be used.	

35.23 Work Order Purge (P4801P)

Processing Option	Processing Options Requiring Further Description
PROCESSING CONTROL:	
1. Enter a '1' to save purged records to a special purge library.	
2. Enter a '1' to reorganize the purged file.	

35.24 Kanban Consumption/Supply (P3157)

Processing Option	Processing Options Requiring Further Description
DISPLAY:	
1. Enter a '1' to display the Kanban Supply video format.	
If left blank, the Kanban Consumption video format will be displayed.	
2. When using the Kanban Supply format (previous option = '1'), enter a '1' to display only checked-out kanbans.	
If left blank, all kanbans will be shown.	
RATE SCHEDULE INFORMATION:	
3. Enter the version of Enter/Change Rate Schedule program (P3109) to call for creation and processing of rate schedules.	
If left blank, 'ZJDE0001' will be used.	
4. Beginning Status	
5. Closed Status	
WORK ORDER INFORMATION:	
6. Enter the version of Work Order Generation program (X4201WO) to call. If left blank, 'ZJDE0001' will be used.	
NOTE: The cancel status from the version specified here will be used for rates as well.	
7. Enter a '1' to attach Parts List and Routing.	
8. Enter the version for Work Order Processing program (P31410) to call. If left blank, 'ZJDE0001' will be used.	
PURCHASE ORDER INFORMATION:	
9. Enter a '1' to trigger an EDI 862 transaction.	
10. Enter the version of Open Orders Inquiry Window program (P3160W) to be called.	
If left blank, 'ZJDE0001' will be used.	
11. Enter the versions of P43500 to call for EDI 862 transaction:	
a. Generation (blank = XJDE0008)	
b. Cancellation (blank = XJDE0009)	
12. Enter the default Routing Type to be used to search for a receipt routing.	
13. Enter the value of the default Routing Type to be used for items without a receipt routing setup.	

Processing Option	Processing Options Requiring Further Description
14. Enter the versions of Purchase Order Receipts (P4312) to call. a. Source Type 3 (Supplier) Blank = ZJDE0008 b. Source Type 5 (Branch/Plant) Blank = ZJDE0007	
15. Enter a '1' to create a Purchase Order.	
16. Enter the version of Write Purchase Orders program (P3420) to call. If left blank, 'ZJDE0001' will be used.	
B/P TRANSFER ORDER INFORMATION:	
17. Enter the version of the Transfer Order Entry program (P4242) to call. If left blank, 'ZJDE0001' will be used.	
MATERIAL ISSUES INFORMATION:	
18. Enter the version of the Material Issues program (P31113) to call. If left blank, 'ZJDE0001' will be used.	
19. Enter a '1' to call the Material Issues Program in a blind mode.	
SHOP FLOOR ACTIVITY INFORMATION:	
20. Enter the version of the Hours and Quantities program (P311221) to call. If left blank, 'ZJDE0001' will be used.	
21. Enter a '1' to call the Hours and Quantities Program in a blind mode.	
22. Enter the Document Type associated with Shop Floor Activity in blind mode. If left blank, 'IH' will be used.	
23. Enter a '1' to automatically update hours & quantities data. NOTE: This eliminates the need for a separate interactive or batch update but the data will not be available for review on the Hours and Quantities screen.	
COMPLETIONS INFORMATION:	
24. Enter the version of the Completions program (P31114) to call. If left blank, 'ZJDE0001' will be used.	
25. Enter a '1' to call the Completions Program in blind mode.	
INVENTORY TRANSFER:	
26. Enter the version of the Inventory Transfer program (P4113) to call. If left blank, 'ZJDE0001' will be used.	

Processing Option	Processing Options Requiring Further Description
27. Enter a '1' to call Inventory Transfer Program in blind mode.	
AUTOMATIC INQUIRY VALUES:	
28. Item Number (Optional)	
29. Location (Optional)	
TRANSACTION CONFIRMATION:	
30. Enter a '1' to prompt the confirmation of a transaction.	
BLANKET/QUOTE PROCESSING:	
31. Enter a '1' for automatic blanket order release processing.	
CALCULATION:	
32. Enter the number of hours equivalent to one day (Default is 8). Replenish Lead Time (from kanban master) divided by the value of this processing option determines lead time. If replenishment hours are not established, 1 day is used as the lead time.	

35.25 Kanban Status Override (P3163)

Processing Option	Processing Options Requiring Further Description
1. Enter a '1' to prevent updates to Status '1' - Checked-In. If left blank (default), updates to this status are allowed.	
2. Enter a '1' to prevent updates to Status '2' - Checked-out. If left blank (default), updates to this status are allowed.	
3. Enter a '1' to prevent updates to Status '3' - Completed. If left blank (default), updates to this status are allowed.	

35.26 Co-/By-Products Produced by Process (P30201)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	

Processing Option	Processing Options Requiring Further Description
1. Enter one of the following:	
1 = Single-Level	
2 = Multi-Level	
3 = Indented	
4 = All processes where a co- or by-product is produced	
5 = Part/Ingredient Availability If left blank, the Single-Level mode will be displayed.	
2. Bill Type (Optional)	
DREAM WRITER VERSIONS:	
Enter the version for each program. If left blank, 'ZJDE0001' will be used.	
NOTE: Option 6 is only valid if System 13 (Equipment) is available.	
3. Item Search (P41200)	
4. Material Where-Used Print (P30420)	
5. Work Order Entry (P48013)	
6. Item Availability (P30205)	
7. Where-Used Detail (P13226)	

35.27 Item Availability (P41202)

Processing Option	Processing Options Requiring Further Description
PROCESS CONTROL:	
1. Enter a '1' to omit locations with no quantity available.	
If left blank, all locations will display.	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, ZJDE0001 will be used.	
2. Item Master (P4101)	
3. Text Message Code Review (P40010)	
4. Item Search (P41200)	
5. Purchase Order Inquiry (P430301)	
6. Customer Service Inquiry (P42045)	
7. Open Work Orders (P31225)	
8. Supply and Demand (P4021)	
9. Bill of Materials (P30200)	
10. Lot Availability (P41280)	
DREAM WRITER VERSIONS (Cont.):	

Processing Option	Processing Options Requiring Further Description
Enter the version for each program. If left blank, ZJDE0001 will be used.	
11. Item Ledger (P4111)	
12. Branch/Plant Item Info. (P41026)	
13. Availability by Location (P4190)	
14. Item / Location Information (P41024)	
15. Weights & Measures (P41012)	
GRADE AND POTENCY:	
16. Enter a '1' to display the grade range. If left blank, no grade will display for selection.	
17. Enter a '1' to display the potency range. If left blank, no potency will display for selection.	
PERCENTAGE OF LIFE REMAINING:	
18. Enter a '1' to calculate/display the Percentage of Life Remaining. If left blank, it will not be displayed.	
19. Enter a '1' to calculate/display Days Until Expiration. If left blank, it will not be displayed.	

35.28 Supply & Demand (P4021)

Processing Option	Processing Options Requiring Further Description
DISPLAY OPTIONS:	
1. Enter a '1' to deduct Safety Stock from Availability.	
2. Enter a '1' by the following Routing Quantities to be considered on hand. Any quantity not included will be displayed on the appropriate date. Quantity in Transit Quantity in Inspection User Defined Quantity 1 User Defined Quantity 2	
3. Enter a '1' to summarize all In Receipt Routing steps into one line.	
4. Enter a '1' to summarize Item Location records.	

Processing Option	Processing Options Requiring Further Description
5. Enter one of the following:	
' ' = No Available to Promise Line	
'1' = Available to Promise Line	
'2' = Cumulative ATP Line	
6. Enter the version of Supply/Demand Inclusion Rules to be used.	
7. Enter a '1' to display the window format if called from another program.	
8. Enter a '1' to use an alternate screen format which has long quantity fields.	
DREAM WRITER VERSIONS:	
Enter the DREAM Writer version to use for each program listed.	
If left blank, version ZJDE0001 will be used.	
9. Purchase Order Entry (P4311)	
10. Purchase Order Inquiry (P430301)	
11. Sales Order Entry (P4211)	
12. Sales Order Inquiry (P42045)	
13. Scheduling Workbench (P31225)	
14. MPS/MRP/DRP Pegging Inq. (P3412)	
15. MPS/MRP/DRP Time Series (P3413)	
16. MPS/MRP/DRP Message Detail(P3411)	
OPTIONAL RECORDS:	
17. Enter a '1' to include Planned Orders from MPS/MRP/DRP generations.	
If left blank, Planned Orders will not be displayed.	
18. Enter the Forecast Type to include	
Forecast Type	
Forecast Type	
Forecast Type	
Forecast Type	
Forecast Type	
19. Enter the number of days (+/-) from today's date that you wish to begin including Forecast records.	
A blank will use today's date to begin including Forecast records.	
20. Enter a '1' to omit 'Bulk' Stocking Type records from screen.	
If left blank, 'Bulk' items will be included.	

Processing Option	Processing Options Requiring Further Description
21. Enter the rate based Schedule Type to use. If left blank, no rate based schedules will be displayed.	
22. Enter a '1' to include Past Due Rates as a supply.	
POTENCY:	
23. Enter '1' to convert Quantities to Standard Potency.	
LOT EXPIRATION:	
24A. Enter '1' to reduce Quantity available due to lot expiration. **Note:** This option will not work with ATP. If you use this option, option 5 must be set to blank or 2.	
24B. Enter optional date to be used for expiration calculation when processing option 24A='1'. If left blank, Lot Expiration Date will be used. 1=Sell By Date 2=Best Before Date 3=User Defined Date1 4=User Defined Date2 5=User Defined Date3 6=User Defined Date4 7=User Defined Date5 8=Commitment Date Method from Item/ Branch Master.	
LOT HOLD CODES:	
25. Enter the lot hold codes (up to 5) to be considered on hand, or enter an '*' to consider all held lots as on hand. If left blank, held lots will not be considered on hand.	
WORK ORDER ENTRY:	
26. Enter the Dream Writer version to use for the Manufacturing Work Order Entry program. If left blank, version ZJDE0001 will be used.	
BILL AVAILABILITY:	
27. Enter the version of Bill Availability (P30205) to be called. If left blank, version ZJDE0001 will be used.	
OVER DUE SUPPLY CONTROL:	
28. Enter a '1' to leave past due supply out of available calculations (past due orders will be displayed but will not be included in quantity available or ATP).	

Processing Option	Processing Options Requiring Further Description
FORECAST DISPLAY OPTIONS:	
29. Enter a '1' to override the planning fence rule and just use actual customer demand for the available calculation. **Note:** forecast will still appear on the screen per processing option above. When left blank, the available calculation will be based on the planning fence and rule established in the item's branch plant manufacturing data.	

35.29 Item Ledger - Costs (P4111)

Processing Option	Processing Options Requiring Further Description
DISPLAY OPTIONS:	
1. Enter the format to be displayed: 1 = Running Quantity Balance format. 2 = Running Dollar Balance format. 3 = Cost Item Ledger format. 4 = Location Item Ledger format. 5 = Lot Status/Grade/Potency Item Ledger format. If left blank, the Cost Item Ledger format will be displayed.	
DEFAULT VALUES:	
2. Enter the default document type upon entering the video. If left blank, a '*' will default for all document types.	
3. Enter a '1' to display Item Ledger entries in ascending date and time order. If left blank, the entries will be displayed in descending date and time order. (This option does NOT apply to Running Balance formats.)	
4. Enter a '1' to search by Original Document Type. If left blank, the search will be done by G/L Document Type.	
DREAM WRITER VERSIONS:	
Enter a DREAM Writer Version for the following programs. (ZJDE0001) is the default.	
5. Load & Delivery Ledger Inq P49511	

35.30 Parts List Comparison (P31117)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Enter the Mode for display:	
A = Display all records	
D = Display differences only	
If left blank, 'A' will be used.	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'XJDE0001' will be used.	
2. WO Comparison Report (P31417)	

36

Repetitive Manufacturing Processing Options

This chapter contains these topics:

36.1 Enter/Change Rate Schedule (P3109)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Rate Type (Default is 'SC')	
2. Number of days to add to today's date for the Thru Date (Optional)	
3. From Status (Optional)	
4. Thru Status (Optional)	

Processing Option	Processing Options Requiring Further Description
5. Beginning status to use when creating a new rate (Optional). If left blank, the beginning status defined by Activity Rules will be used if activated in Manufacturing Constants. NOTE: This status will not be used when auto processing (option 18 = '1' or '2'). In this case, the P31410 status is used.	
SCREEN FILTERS:	
6. Enter a '1' to only display open schedules.	
PROCESSING CONTROLS:	
7. Enter the status code at, or beyond which, the rate is considered closed. (Default is '99')	
CATEGORY CODES:	
8. Enter defaults for the following: a. Category Code 1 (Optional) b. Category Code 2 (Optional) c. Category Code 3 (Optional) Or, enter the Item Branch Class Code fields from which to retrieve values: d. Category Code 1 (Optional) e. Category Code 2 (Optional) f. Category Code 3 (Optional)	
DREAM WRITER VERSIONS: Enter the version for each program. If left blank, 'ZJDE0001' will be used.	
9. Completions Workbench (P3119)	
10. MPS/MRP/DRP Time Series (P3413)	
11. Bill Availability (P30205)	
12. Assign Serial Numbers (P3105)	
13. Lot Master Revisions (P4108)	
14. Bill of Materials Revisions (P3002)	
DREAM WRITER VERSIONS (Continued):	
15. Bill of Material Inquiry (P30200)	
16. Line Scheduling Workbench (P3153)	
17. Supply/Demand Inquiry (P4021)	
PARTS LIST/ROUTING CREATION:	

Processing Option	Processing Options Requiring Further Description
18. Enter the method to attach a Parts List and Routing:	
1 = Interactively	
2 = Submit to Batch	
NOTE: If left blank, Parts List and Routing will not be attached.	
19. Enter the version for P31410.	
If left blank, 'ZJDE0001' will be used.	
BACK SCHEDULING INFORMATION:	
20. Enter the Unit of Measure to use for scheduling.	
BILL/ROUTING RECALCULATION:	
21. Enter the version for P31410 if this program should update the Parts List and Routing when the Rate quantities or dates are changed.	
If left blank, no recalculation will be performed.	
SUBSTITUTE PROCESSING:	
22. Enter the substitute processing method to be used when creating the Rate Parts List on-line.	
1 = Use substitutes for shortages.	
(Commitment processing must be used if '1' is selected.)	
2 = Display the substitute availability window when substitute quantity available can cover shortage.	
If left blank, substitute processing will not be done.	
COMMITMENT PROCESSING:	
23. Enter a '1' to bypass commitment processing when creating the Parts List on-line.	
If left blank, commitments will be processed per Commitment Control in Manufacturing Constants (P3009).	
PRIOR REVISIONS:	
24. Enter a '1' to allow attaching parts lists at prior revision levels.	
If left blank, prior revision levels will not be used.	
ITEM LOCATION VALIDATION:	
25. Enter a '1' to validate for existing Branch/Item record.	
PURCHASE ORDER HOLD CODE:	

Processing Option	Processing Options Requiring Further Description
26. Enter the Hold Code to be updated to the related purchase order if the rate quantity or date changes.	
If left blank, the purchase order will not be updated.	
NOTE: The purchase order will be updated only if the rate routings are to be recalculated.	
WAREHOUSE MANAGEMENT:	
27. Enter the request processing mode.	
1 = Generate requests only	
2 = Generate requests and process using the subsystem.	
If left blank, no pick requests will be generated.	
28. If processing pick requests using the subsystem, enter the version of Process Pick Requests (P46171) to call.	
If left blank, 'XJDE0002' will be used.	
WAREHOUSE MANAGEMENT (Continued):	
29. Enter the default staging location for moving goods out of the warehouse.	
30. Enter a '1' if the default staging location should be checked for availability. If the part is available at the staging location a request will NOT be generated.	
NOTE: This option only applies to parts with no work center locations.	
GENERIC TEXT COPY OPTIONS:	
31. Enter a '1' to copy the component's generic text to the Parts List.	
32. Enter a '1' to copy the operation's generic text to the Routing.	
OBSOLETE ITEMS:	
33. Enter the Cross-Reference Code for retrieving item replacements for obsolete items.	
CHARGE TO BUSINESS UNIT DEFAULT:	
34. Enter a '1' to default the Charge to Business Unit from the Job number in the Business Unit Master file (F0006).	
If left blank, the Branch/Plant will be used.	
LOT EXPIRATION DATE:	

Processing Option	Processing Options Requiring Further Description
35. Select the date that will be used to determine the eligibility of lot /serial numbered components. Only lots with expiration dates greater than or equal to the date specified will be considered.	
' ' = Parts list required date (default)	
'1' = Work order start date	
'2' = Work order requested (completion) date. Note that this affects only when parts list is manually attached with P3111.	
AUTOMATIC LOT NUMBER GENERATION:	
36. Enter a '1' to automatically generate a lot number upon work order creation for items with a Lot Process Type of 1 or 2.	

36.2 Line Scheduling Workbench (P3153)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Status (FIRM rates and work orders)	
2. Document Type (Default 'SC')	
3. Shift (Optional)	
4. The number of days to add to today's date for the thru date (Optional)	
CLOSED RATES:	
5. Enter the status code at, or beyond which, the rate is considered closed	
(Default is '99')	
PLANNED ORDERS:	
6. Enter a '1' to display PLANNED rates and work orders.	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
7. Production Status (P31226)	
8. Line Sequencing Workbench (P3156)	
9. Split Lines Window (P3156W)	
10. Part Availability (P30205)	
11. Enter/Change Rate Schedule (P3109)	
12. Supply/Demand Inquiry (P4021)	
13. Message File Revisions (P3411)	
14. Line Schedule Review (P3152)	

Processing Option	Processing Options Requiring Further Description
15. Sales Order Entry (P4211)	
CAPACITY DISPLAY:	
16. Enter a '1' to display capacity in units.	
If left blank, capacity will be displayed in percentages.	

36.3 Line Sequencing Workbench (P3156)

Processing Option	Processing Options Requiring Further Description
SCHEDULING CONTROL:	
1. Enter a '1' to allow scheduling across shifts.	
2. Enter a '1' to allow scheduling across days.	
If left blank and scheduling across shifts is allowed, remaining hours for a day will be applied to the last shift for the day.	
NOTE: If option 1 is left blank, option 2 is set to blank in the program.	
DATE RANGE SELECTION:	
3. The number of days to add to today's date for the Thru date (Optional)	
CLOSED RATES:	
4. Enter the status code at, or beyond which, the rate is considered closed	
(Default is '99')	

36.4 Schedule Review (P3152)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Document Type (Default is 'SC')	
2. Shift (Optional)	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
3. Rate Revisions (P3109)	
4. Work Order Entry (P48013)	

36.5 Rate Transactions Workbench (P3119)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Schedule Type (Default is 'SC')	
2. Employee Number (Optional)	
3. Production Line (Optional)	
4. Number of days to add to the From Date for the Thru Date (Optional)	
5. Status From (Optional)	
6. Status Thru (Optional)	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
7. Super Backflush (P31123)	
8. Hours and Quantities (P311221)	
9. Material Issues (P31113)	
10. Enter/Change Rate Schedule (P3109)	
11. Item Ledger Inquiry (P4111)	
12. Line Schedule Review (P3152)	
13. Schedule History Inquiry (P31226)	
14. Completions (P31114)	
15. Lot Master Revisions (P4108)	
16. Hours & Quantities Update (P31422)	
HOURS & QUANTITIES:	
17. Enter a '1' to automatically process hours & quantities using the version for P31422.	
If left blank, P31422 should be submitted manually.	
CLOSING RATES:	
18. Enter the status code to use when closing rates. (Default is '99')	
QUALITY MANAGEMENT:	
19. Enter the version of Test Results Revisions (P3711) to call.	
If left blank, 'ZJDE0002' will be used.	

36.6 Super Backflush (P31123)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	

Processing Option	Processing Options Requiring Further Description
1. Operation Status for partial completions (Optional)	
2. Operation Status for full completions (Optional)	
3. Status Code for update to the Work Order Header (Optional)	
WORK ORDER ISSUES INFORMATION:	
4. Enter the Version of the Material Issues Program to call. If left blank, 'ZJDE0001' will be used.	
5. Enter a '1' to call the Material Issues Program in a blind mode.	
SHOP FLOOR ACTIVITY INFORMATION:	
6. Enter the Version of the Hours and Quantity Program to call. If left blank, 'ZJDE0001' will be used.	
7. Enter a '1' to call the Hours and Quantity Program in a blind mode.	
8. Enter a '1' to automatically update hours & quantities data. **Note:** This eliminates the need for a separate interactive or batch update but the data will not be available for review on the Hours and Quantities screen.	
WORK ORDER COMPLETION INFORMATION:	
9. Enter the Version of the Work Order Completions Program to call. If left blank, 'ZJDE0001' will be used.	
10. Enter a '1' to call the Work Order Completion Program in a blind mode.	
QUANTITY COMPLETION CONTROL:	
11. Enter a '1' to verify that, for a given operation, the total of the quantity completed plus scrapped does not exceed the 'Quantity At Operation.' If left blank, the verification is not performed.	
QUALITY MANAGEMENT:	
12. Enter the version of Test Results Revisions (P3711) to call. If left blank, 'ZJDE0002' will be used.	

36.7 Work Order Time Entry (P311221)

Processing Option	Processing Options Requiring Further Description
DISPLAY INFORMATION:	
1. Enter a '1' for the screen to be displayed in Order Number format.	
If left blank, the screen will be displayed in Employee format.	
UPDATE INFORMATION:	
2. Enter the document type associated with shop floor activity.	
EDIT INFORMATION:	
3. Enter the status code beyond which shop floor activity cannot be entered.	
4. Enter a '1' to verify that, for a given operation, the total of the quantity completed plus scrapped does not exceed the Quantity At Operation.	
5. Enter a '1' to prevent the employee rate from being written to the screen.	
QUALITY MANAGEMENT:	
6. Enter the version of Test Results Revisions (P3711) to call.	
If left blank, 'ZJDE0002' will be used.	
DREAM WRITER VERSIONS:	
Enter the version for each program.	
If left blank, 'ZJDE0001' will be used.	
7. Scheduling Workbench (P31225)	
8. Production Status (P31226)	

36.8 Production Status (P31226)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. From Status (Optional)	
2. Through Status (Optional)	
3. The number of days to add to today's date for the Thru date (Optional)	
DREAM WRITER VERSIONS:	
Enter the Dream Writer Version of the program to be called via the selection options. If left blank, 'ZJDE0001' will be used.	
4. Work Order Header (P48013)	

Processing Option	Processing Options Requiring Further Description
5. Parts List Inquiry (P3121)	

36.9 Production History (P31227)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. Operation Sequence (Optional)	
2. Shift (Optional)	
3. The number of days to add to today's date for the Thru Date (Optional)	

36.10 Line Dispatch List (P3159)

Processing Option	Processing Options Requiring Further Description
DEFAULT VALUES:	
1. The number of days to add to today's date for the Thru Date	
2. Shift (Optional)	
3. From Status (Optional)	
4. Thru Status (Optional)	

36.11 Kanban Consumption/Supply (P3157)

Processing Option	Processing Options Requiring Further Description
DISPLAY:	
1. Enter a '1' to display the Kanban Supply video format. If left blank, the Kanban Consumption video format will be displayed.	
2. When using the Kanban Supply format (previous option = '1'), enter a '1' to display only checked-out kanbans. If left blank, all kanbans will be shown.	
RATE SCHEDULE INFORMATION:	
3. Enter the version of Enter/Change Rate Schedule program (P3109) to call for creation and processing of rate schedules. If left blank, 'ZJDE0001' will be used.	
4. Beginning Status	
5. Closed Status	

Processing Option	Processing Options Requiring Further Description
WORK ORDER INFORMATION:	
6. Enter the version of Work Order Generation program (X4201WO) to call. If left blank, 'ZJDE0001' will be used. NOTE: The cancel status from the version specified here will be used for rates as well.	
7. Enter a '1' to attach Parts List and Routing.	
8. Enter the version for Work Order Processing program (P31410) to call. If left blank, 'ZJDE0001' will be used.	
PURCHASE ORDER INFORMATION:	
9. Enter a '1' to trigger an EDI 862 transaction.	
10. Enter the version of Open Orders Inquiry Window program (P3160W) to be called. If left blank, 'ZJDE0001' will be used.	
11. Enter the versions of P43500 to call for EDI 862 transaction: a. Generation (blank = XJDE0008) b. Cancellation (blank = XJDE0009)	
12. Enter the default Routing Type to be used to search for a receipt routing.	
13. Enter the value of the default Routing Type to be used for items without a receipt routing setup.	
14. Enter the versions of Purchase Order Receipts (P4312) to call. a. Source Type 3 (Supplier) Blank = ZJDE0008 b. Source Type 5 (Branch/Plant) Blank = ZJDE0007	
15. Enter a '1' to create a Purchase Order.	
16. Enter the version of Write Purchase Orders program (P3420) to call. If left blank, 'ZJDE0001' will be used.	
B/P TRANSFER ORDER INFORMATION:	
17. Enter the version of the Transfer Order Entry program (P4242) to call. If left blank, 'ZJDE0001' will be used.	
MATERIAL ISSUES INFORMATION:	
18. Enter the version of the Material Issues program (P31113) to call. If left blank, 'ZJDE0001' will be used.	
19. Enter a '1' to call the Material Issues Program in a blind mode.	
SHOP FLOOR ACTIVITY INFORMATION:	

Processing Option	Processing Options Requiring Further Description
20. Enter the version of the Hours and Quantities program (P311221) to call. If left blank, 'ZJDE0001' will be used.	
21. Enter a '1' to call the Hours and Quantities Program in a blind mode.	
22. Enter the Document Type associated with Shop Floor Activity in blind mode. If left blank, 'IH' will be used.	
23. Enter a '1' to automatically update hours & quantities data. NOTE: This eliminates the need for a separate interactive or batch update but the data will not be available for review on the Hours and Quantities screen.	
COMPLETIONS INFORMATION:	
24. Enter the version of the Completions program (P31114) to call. If left blank, 'ZJDE0001' will be used.	
25. Enter a '1' to call the Completions Program in blind mode.	
INVENTORY TRANSFER:	
26. Enter the version of the Inventory Transfer program (P4113) to call. If left blank, 'ZJDE0001' will be used.	
27. Enter a '1' to call Inventory Transfer Program in blind mode.	
AUTOMATIC INQUIRY VALUES:	
28. Item Number (Optional)	
29. Location (Optional)	
TRANSACTION CONFIRMATION:	
30. Enter a '1' to prompt the confirmation of a transaction.	
BLANKET/QUOTE PROCESSING:	
31. Enter a '1' for automatic blanket order release processing.	
CALCULATION:	
32. Enter the number of hours equivalent to one day (Default is 8). Replenish Lead Time (from kanban master) divided by the value of this processing option determines lead time. If replenishment hours are not established, 1 day is used as the lead time.	

36.12 Kanban Status Override (P3163)

Processing Option	Processing Options Requiring Further Description
1. Enter a '1' to prevent updates to Status '1' - Checked-In.	
If left blank (default), updates to this status are allowed.	
2. Enter a '1' to prevent updates to Status '2' - Checked-out.	
If left blank (default), updates to this status are allowed.	
3. Enter a '1' to prevent updates to Status '3' - Completed.	
If left blank (default), updates to this status are allowed.	

36.13 Batch Rate Close by Date (P3191)

Processing Option	Processing Options Requiring Further Description
PROCESSING CONTROL:	
1. Enter the date to compare to the Rate Effective Thru Date. All rates for which the Thru Date is less than this date will be closed.	When a Rate is closed the system no longer allows Manufacturing Accounting for that rate.
If left blank, no rates will be closed.	
WORK ORDER STATUS:	
2. Enter the status for closed rates.	
If left blank, '99' will be used.	

36.14 MFG Accounting for Orderless Completion (P31862)

Processing Option	Processing Options Requiring Further Description
1. Enter the G/L date. If left blank, the current date will be used.:	
2. Enter a '1' to create journal entries. If left blank, 'Proof' mode is assumed.	
JOURNAL ENTRY SUMMARIZATION:	
3. Enter a '1' to summarize Material Issues by Account within a document.	
4. Enter a '1' to summarize by Account ACROSS documents. WARNING: This option will reduce the number of journal entries. See Helps.	
REPORT OPTIONS:	
5. Enter a '1' to print an Accounting Journal.	

Processing Option	Processing Options Requiring Further Description
6. Enter a '1' to print subtotals by Document Type and Document.	
REPORT SUMMARIZATION:	
7. Enter a '1' to summarize Material Issues within a document.	
8. Enter a '1' to summarize by Account ACROSS documents. WARNING: This option will reduce the report output. See Helps.	
DOCUMENT TYPES:	
9. Enter the Document Type associated with Inventory Issues.	
10. Enter the Document Type associated with Orderless Shop Floor Activity.	
11. Enter the Document Type associated with Inventory Completions.	
12. Enter the Document Type associated with Inventory Scrap.	
13. Enter the Document Type associated Accounting Variances.	
FLEX ACCOUNTING:	
14. Enter '1' to use flex accounting.	
If left blank, flex accounting will not be used.	

37

System Setup Processing Options

This chapter contains these topics:

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37.1 General User-Defined Codes (P0005A)

Processing Option	Processing Options Requiring Further Description
DEFAULT CODE/TYPE:	
1. Enter the desired Install System Code.	
2. Enter the desired Record Type.	

37.2 Generic Rate/Message Records Program (P00191)

Processing Option	Processing Options Requiring Further Description
USER DEFINED CODES:	
1. Enter the desired System Code.	
2. Enter the desired Record Type.	
DISPLAY INFORMATION:	
3. Enter an '1' to display Rate Text or Enter an '2' to display Message Text	
4. If displaying Message Text, Enter an '1' for 60 column display or Enter an '2' for 80 column display	

37.3 Work Center Resource Units Refresh (P3007G)

Processing Option	Processing Options Requiring Further Description
GENERATION INFORMATION:	
1. Enter the Start Date.	
2. Enter the End Date. **Note:** The program will regenerate resource units for the entire month of the start date and the entire month of the end date.	
3. Enter the Branch/Plant to be processed.	
4. Enter a string of up to 6 shift codes to be processed ('123 '). If left blank, all shifts will be processed.	

37.4 Kanban Size Calculation (P30450)

Processing Option	Processing Options Requiring Further Description
PROCESSING CONTROL:	
1. Enter a '1' to calculate Kanban sizes.	
2. Enter a '1' to update Kanban Master file.	
3. Enter a '1' to print Kanban cards.	
4. Enter a '1' to print Kanban Exception Report.	
SAFETY STOCK:	
5. Enter the desired safety stock expressed as a percentage of daily production. ('15' = 15%)	
FILTER CONTROL:	
6. Enter the range, expressed as a percentage, above or below which the Kanban should not be changed. ('15' = plus or minus 15%)	
KANBAN AVERAGE DAILY DEMAND:	
7. Enter a '1' to select summation of the MPS/MRP demands desired, or enter a '2' to select greater of MPS/MRP demands desired. If no demands are selected, the Planning Time Fence Rule for the item will be used. a. Forecasts b. Sales Orders c. Firm Work Orders d. Planned Orders e. Rate Schedule	
CALCULATION:	

Processing Option	Processing Options Requiring Further Description
8. Enter number of hours equivalent to one day. (Default is 8)	
9. Enter the date range to use for the average daily demand calculation.	
a. Beginning Date (Required)	
b. Ending Date (Required)	
USER DEFINED PROGRAM:	
10. Enter the program name of the Kanban size calculation program.	
BAR CODE INFORMATION:	
11. Enter the format for bar code printing.	
1 = Code 3 of 9 (Code 39)	
2 = Code 128	
If left blank, bar codes will not print.	

38

Z File Processing Options

This chapter includes the following processing options:

38.1 Work Center Information - Z File (P3006Z)

Processing Option	Processing Options Requiring Further Description
ERROR REPORTING:	
1. Enter '1' to skip printing the error report. If left blanks, the report will print.	
2. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0010 will be used	

38.2 Routing Information - Z File (P3003Z)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
1. Enter the version to be used to call Routing Master Revisions (P3003). If left blank, ZJDE0001 will be used.	
ERROR REPORTING:	
2. Enter '1' to skip printing the error report. If left blanks, the report will print.	
3. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0010 will be used	

38.3 Work Order Parts List - Z File (P3111Z)

Processing Option	Processing Options Requiring Further Description
ERROR REPORTING:	
1. Enter '1' to skip printing the error report. If left blanks, the report will print.	
2. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0011 will be used	

38.4 Work Order Hours and Qty - Z File (P311221Z)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
1. Enter the version to be used to call Hours and Quantities (P311221). If left blank, ZJDE0001 will be used.	
ERROR REPORTING:	
2. Enter '1' to skip printing the error report. If left blanks, the report will print.	
3. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0011 will be used	

38.5 Work Order Routing - Z File (P3112Z)

Processing Option	Processing Options Requiring Further Description
ERROR REPORTING:	
1. Enter '1' to skip printing the error report. If left blanks, the report will print.	
2. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0011 will be used	

38.6 Manufacturing Work Order Entry - Z File (P48013Z)

Processing Option	Processing Options Requiring Further Description
DREAM WRITER VERSIONS:	
1. Enter the version to be used to call Work Order Master (P48013). If left blank, ZJDE0001 will be used.	
ERROR REPORTING:	

Processing Option	Processing Options Requiring Further Description
2. Enter '1' to skip printing the error report. If left blanks, the report will print.	
3. Enter the version to be used to call the error report program (P41ZERR). If left blank, XJDE0011 will be used	

A

Flash Messages in Shop Floor Control

This appendix contains these topics:

- Section A.1, "W.O. Scheduling,"

- Section A.2, "Operation Scheduling,"

- Section A.3, "Urgent."

The messages are maintained in the UDC table (00/WM) and described by Data Dictionary item SPRT. A third message (Urgent) that is a manually appended message is shipped with the software. Other messages may be loaded to the table as required.

Both W.O. Scheduling and Operation Scheduling messages can be generated from Work Order Entry (P48013), Work Order Processing (P31410) and Work Order Routing (P3112) depending upon the validation performed in the common back scheduling routine (C3007).

A.1 W.O. Scheduling

This flash message is created when the W.O. Header Start Date and the First Operation Start Date are not equal.

Possible conditions causing this are:

- No lead time rollup has been performed and that the value for Lead-time Level for fixed L/T items, or Lead-time Per Unit for variable L/T items is blank.

- A start date has been manually entered on either the header or first operation and it does not agree with the other one.

- The back scheduling routine (C3007) has calculated a different start date than the one generated from the lead time supplied to the header.

The W.O. header program calculates a start date in one of two ways. It either retrieves the Lead-time level (IBLTLV) for fixed L/T items, or it uses Lead-time per unit (IBLTPU) factored by the time basis code and quantity ordered for variable L/T items. In each case, the external subroutine X3100 is called to return the start date.

This message can be removed by either:

- Changing the start dates to match each other.

- Manually overriding the W.O. Flash Message in either the Work Order/Rate Category Codes screen (F11 from Work Order Entry - P48013) or from the Shop Floor Workbench (P31225).

A.2 Operation Scheduling

This flash message is created when the Work Center Resource Units either do not exist or a record lock was encountered during the processing of the file (F3007).

This message can be removed by either:

- Adding the Resource Units detail required.

- Manually overriding the W.O. Flash Message in either the Work Order/Rate Category Codes screen (F11 from Work Order Entry - P48013) or from the Shop Floor Workbench (P31225).

W.O. Scheduling will override Operation Scheduling when they both occur. In this case, the correction of the error generating the W.O. Scheduling message may not necessarily resolve the issue causing the Operation Scheduling message to appear.

A.3 Urgent

This message, or other user defined flash messages, can be manually added to an order by invoking F11 on the Work Order Entry program (P48013)) or by changing the detail in the Shop Floor Workbench (P31225).

Messages entered in the above manner can be removed in the same way.

B

Lead Times

This appendix contains these topics:

B.1 Introduction to Lead Times

Determining lead time is an essential part of any manufacturing or scheduling process. For any product that you purchase or manufacture, you encounter a time lag between when you order or start it and when you receive or finish it. To account for the lag, you must estimate the extra time and allow for it in your planning.

Cumulative lead time is the total amount of time that is required to produce a product. In process manufacturing, it is the time required to complete an entire process. The Shop Floor Control system uses the requested date of the order and, based on the level lead time for the product, calculates the appropriate order start date.

Lead times include:

- Work order start dates

- Operation start and due dates

- Overlapping operations

- Overlapping and concurrent operations

- Calculating lead times

Many factors can influence your company's lead time policy, including:

- Manufacturing environment (assemble-to-order, make-to-order)

- Fixed or variable quantities

- Serial or overlap operations

- Fixed or variable time

- Number of shifts and operators

- Factoring by efficiency

- Protection

For any manufactured product, the system calculates four types of lead time:

- Level
- Manufacturing
- Cumulative
- Per unit

The Shop Floor Control system uses the following data in its calculation of lead times:

- Serial or overlap operations
- Fixed or variable lead time indicator
- Routing labor, setup, queue, move, and machine run hours
- Work center prime load code
- Number of employees or machines per work center
- Hours per work day

The system:

- Uses the information that you set up for each item on Plant Manufacturing Data in the Inventory Management system
- Coordinates the information with routing and work center information you enter in the Product Data Management (PDM) system
- Determines lead times for all parent and component items

At any point in your planning and scheduling process, you can change lead time values manually through Manufacturing Data.

You can use fixed or variable lead times for ingredients. The system subtracts fixed lead times directly from the requested date on the work request to calculate the start date of production. Fixed lead time remains the same regardless of the quantity produced. However, variable lead time adjusts according to the quantity produced.

The following explains important lead time concepts you need to understand.

Concept	Description
Machine hours	The number of machine hours required to produce the amount from the time basis code.
Labor hours	The number of labor hours required to produce the amount from the time basis code.
Setup hours	The number of hours required to prepare machinery to run a specific item, regardless of quantity.
Move hours	The number of hours that a manufacturing work order is in transit from the completion of one operation to the beginning of the next.
Queue hours	The number of hours that a job waits at a work center before setup or work is performed on the job. This value is the sum of the move hours and the queue hours.

Concept	Description
Time basis code	Indicates how machine or labor hours are expressed for a product. Time basis codes identify the time basis or rate to be used for machine or labor hours entered for every routing step, for example, 25 hours per 1,000 pieces or 15 hours per 10,000 pieces. You can maintain the time basis codes on Time Basis Codes. Time basis codes are user defined codes (30/TB).
Resource units	Shows the available amount of capacity in a work center for the months in the calendar. For lead time purposes, as the system calculates the operation start and due dates, the system uses the available hours to calculate the operation start dates. You can maintain the resource units in Work Center Resource Units.
Prime load code	Determines whether a work center is labor or machine intensive. The prime load code also determines whether the system uses the number of employees or number of machines to determine the daily resource units in the Resource Units table. You can maintain the prime load codes on Work Center Revisions. For calculating lead times, the following prime load code values are important: L – run labor hours M – machine labor hours B – run and setup hours C – machine and setup hours
Purchased parts	You specify the level lead time, which is equal to the cumulative lead time. By default, the manufacturing lead time, lead time per unit, total queue/move hours, and setup times for purchased parts are zero.

B.2 Work Order Start Dates

The system uses the level lead time or lead time per unit for an item defined on the Manufacturing Data screen to calculate the start date of a work order based on the order's due date.

B.2.1 Fixed Lead Time

When an item has a fixed lead time, the system uses its level lead time value in backscheduling to find the work order start date.

For example, the system generates a planned order for product 101 with a requested date of 10/15/17. The level lead time is 3 days for this product, so the system calculates the start date by counting back 3 working days on the shop floor calendar from (but not including) the requested date. The system assigns the order a start date of 10/12/17.

B.2.2 Variable Lead Time

When an item has a variable lead time, the system uses the following calculation to determine the lead time days:

$$\frac{(\text{Leadtime per unit} \times \text{order quantity} / \text{TIMB*}) + \text{setup} + \text{total queue/move}}{\text{Work hours per day}}$$

* The system reads the Time Basis Code from the Item Branch file (F4102).

For example, to determine the start date, the system counts back the lead time days from the due date of planned orders. The system backschedules the due date, 10/15, 2 days to determine the start date of 10/13.

(32 x 1000/ 10,000) + 1 + 9) / 8

(3.2 + 10) / 8 = 2 days

The following table shows the values used in this example.

Field	Value Used
Due date	10/15
Lead time per unit	32 hours
Order quantity	1000
Time Basis Code	10,000
Setup	1 hour
Total queue/move	9 hours
Work hours per day	From manufacturing constants

B.3 Operation Start and Due Dates

B.3.1 Fixed Lead Time

The system calculates the operation start and due dates with the average number of hours per operation.

If the work center resource calendar is not populated then all the operation start dates will be the same as the work order header start date.

If the work center resource calendar is populated then the hours are spread evenly across all the operations.

The system schedules the last operation due date on the day before the work order due date.

B.3.2 Variable Lead Time

To determine variable lead times, the system schedules the actual hours from the work order routing instructions according to the same resource units rules for variable lead time.

The system uses the prime load code to determine what hours to use. The hours are then applied to the resource units table, similar to fixed lead time. The system applies queue time from the work order routing at the beginning of an operation, and applies move time at the end of an operation.

B.4 Overlapping Operations

One method to compress lead times is to overlap operations. Overlapping operations are two or more operations in a routing that process at the same time. The percent of overlap is the amount of time that these operations can process concurrently. You can define at what point a second operation can begin before the first operation is

complete. Because of setup, move, and queue times, the actual overlap in run time might be less than the percent of overlap defined.

In the following example, Operation B has a percent of overlap of 80%. This means that Operation B can begin when 80% of Operation A remains to be finished, or when Operation A is 20% complete. Operations A and B are both active as they overlap.

Figure B–1   Diagram of Overlapping Operations
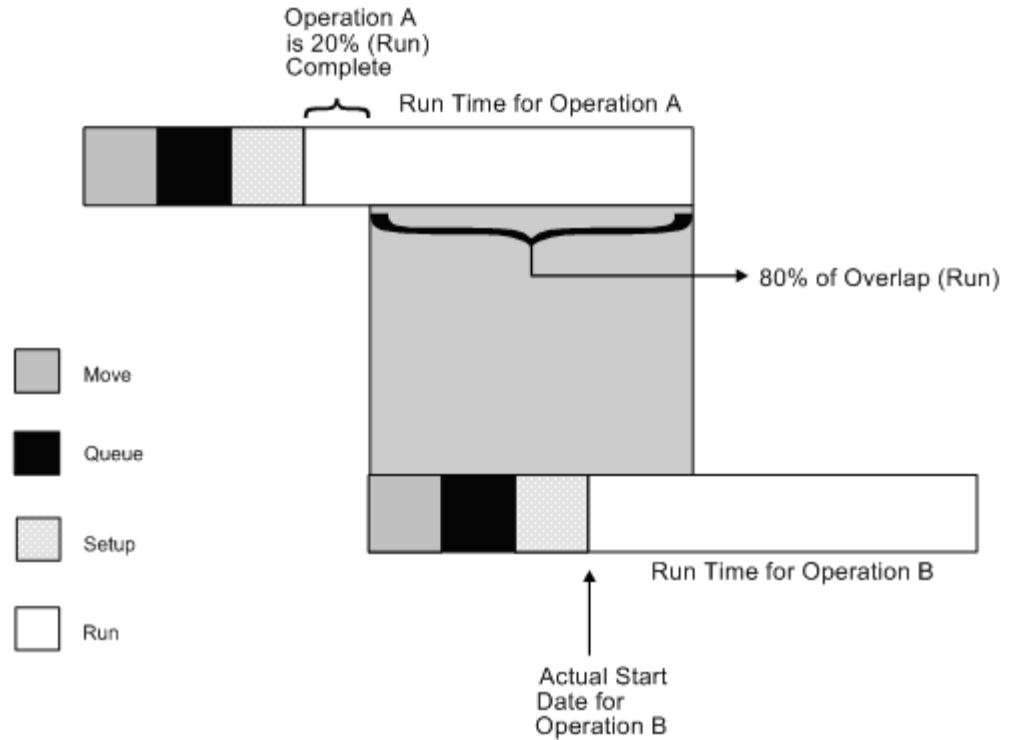
If the percent of overlap causes an operation to end later than the last operation in the routing, the system issues an error message and enters the work order start and requested dates into each operation.

B.5 Overlapping and Concurrent Operations

If a percentage of overlap is specified in the Routing detail area, the work order routing includes specified operations that overlap. For example, an overlap percentage of 80% for an operation means that the next operation can start when 20% of the previous operation is complete.

Field	Value
Work order complete date	05/01/17
Last operation 20	24 hours
First operation 10	24 hours
Resource hours per day-per work center	8 hours
Operation overlap on 20	75%

Operation	Without overlap	With overlap
Operation 10		
start	04/27/17	04/27/17
complete	04/29/17	04/29/17
Operation 20		
start	04/30/17	04/27/17
complete	05/02/17	04/30/17

Using the data from the above tables, the system advances the complete date of the previous operation by 75% of 24 or 18 hours. The system then recalculates the start date using the normal backscheduling rules. As a result, operations 10 and 20 overlap and will take 24 hours to complete. The following diagram illustrates this concept.

Date	4/27	4/28	4/29	4/30	5/1	5/2
Resource hours	8	8	8	8	8	8
OP 10 (24 hrs)	<----	-----	---->			
OP 20 (24 hrs) (w/o overlap)	<----	-----	---->			
OP 10 (w/ overlap)	<----	-----	---->			
OP 20 (w/ overlap)	<-	-----	-----	-->		

B.6 Calculating Lead Times

The Leadtime Rollup program calculation updates the following within the Plant Manufacturing Data program:

- Level lead time (if using manufacturing lead time quantity)
- Manufacturing lead time
- Cumulative lead time
- Per unit lead time
- Total queue/move hours
- Setup hours

B.6.1 Level Lead Time

For a manufactured product, level lead time is the number of workdays required to complete the product once all items are available. Level lead time for a purchased item is the number of calendar days required for you to receive the item after the supplier receives your purchase order.

B.6.1.1 Calculation

The system uses the following formula to calculate level lead time:

Figure B–2   Calculation for Level Lead Time

$$\frac{SUM \left[\dfrac{\{(M \text{ or } L / E \text{ or } M) \ / \ (EF \text{ or } UT \times CUM \text{ Yield})\} \times MLQ}{TIMB \text{ (from routing)}} \right] + SETUP + TOTAL \text{ QUEUE \& MOVE}}{\text{Work Hours Per Day (from Mfg. Constants)}}$$

The following table defines the values used in the formula.

Value	Description
SUM	Sum of all operations
M or L	Either machine or labor hours based on the prime load code
E or M	Number of employees or machines in the work center
EF or UT	Efficiency or Utilization from the work center
Cum Yield %	From the Routing Master (F3003)
MLQ	Manufacturing lead time quantity
TIMB	Time basis
Setup	Setup time from the Routing Master (F3003)
Total Queue & Move	Queue plus Move time from routing master or work center

For example:

Figure B–3   Example of Calculating the Level Lead Time, part 1

$$\frac{\left[\dfrac{\{(6/1) \ / \ (0.9 \times 0.72)\} \times 1}{1} + \dfrac{\{(5/1) \ / \ (1 \times 0.72)\} \times 1}{1} + \dfrac{\{(90/3) \ / \ (0.85 \times 0.80)\} \times 1}{100} + \dfrac{\{(8/2) \ / \ (0.95 \times 1)\} \times 1}{1} \right] + 4 + 22}{\text{8 Hours}}$$

OP-10   OP-20   OP-30   OP-40

Figure B–4   Example of Calculating the Level Lead Time, part 2

$$\frac{9.26 + 6.94 + 0.44 + 4.21 + 4 + 22}{\text{8 Hours}} = \frac{46.85 \text{ Hours}}{\text{8 Hours}} = 5.86 \text{ or 6 Days}$$

Manufacturing Lead Time

Manufacturing lead time is the total number of workdays required to complete a product, from its lowest-level items to the final item, assuming all purchased items are in house, which includes:

- Order preparation time
- Queue time

- Setup time

- Run time

- Move time

- Inspection time

- Putaway time

And, it is the total of the level lead time for a product plus the longest manufacturing lead time of any of its items.

Lead times for purchased items are not included in manufacturing lead time calculations. The manufacturing lead time for a purchased item is its level lead time.

- Manufacturing leadtime for manufactured items

- Final Item

- Start product

B.6.1.2 Calculation

The system uses the following formula to calculate manufacturing lead time.

Item F Level LT = 1

Item G Level LT = 3

Item D Level LT = 4 Mfg LT = 4 + 0 = 4

Item E Level LT = 3 Mfg LT = 3 + 0 = 3

Item C Level LT = 4 Mfg LT = 4 + 4 = 8

Item B Level LT = 7 Mfg LT = 7 + 0 = 7

Item A Level LT = 2 Mfg LT = 2 + 8 = 10

Items A, B, C, D, and E are manufactured items. Items F and G are purchased items.

B.6.2 Cumulative Lead Time

Cumulative lead time is the number of workdays that are required to acquire items and complete a product, from its lowest-level items to the final item, which is the level lead time for a product plus the longest cumulative lead time of any of its items. Unlike manufacturing lead time, cumulative lead time includes the lead times for purchased items. It covers both the time to acquire purchased items and the time to complete the product. The cumulative lead time for a purchased item is its level lead time.

Cumulative leadtime

Supplier receives order

Complete product

Manufacturer receives item

Start product

B.6.2.1 Calculation

The system uses the following formula to calculate cumulative lead time.

Item F Level LT = 1

Item G Level LT = 3

Item D Level LT = 4 Cume LT = 4 + 1 = 5

Item E Level LT = 3 Cume LT = 3 + 3 = 6

Item B Level LT = 7 Cume LT = 7 + 0 = 7

Item C Level LT = 4 Cume LT = 4 + 6 = 10

Item A Level LT = 2 Cume LT = 2 + 10 = 12

Items A, B, C, D, and E are manufactured items. Items F and G are purchased items.

B.6.3 Per Unit Lead Time

Per unit lead time is the sum of the run times, as defined by the prime load codes for the work centers, factored by the routing time basis and converted to the lead time per unit. The per unit lead time sets valid start dates for orders planned in other than normal planned order quantity. When you run the leadtime rollup program, the system measures the per unit lead time in hours.

B.6.3.1 Calculation

The system uses the following formula to calculate per unit lead time.

Figure B–5   Formula to Calculate the Per Unit Lead Time

$$\frac{SUM \; \{(M \text{ or } L / E \text{ or } M) / (EF \text{ or } UT \times CUM \text{ Yield})\} \times TIMB1}{TIMB2}$$

The following table defines the values used in the formula.

Value	Description
SUM	Sum of all operations
M or L	Machine or labor hours based on the prime load code
E or M	Number of employees or machines from the work center
EF or UT	Efficiency or Utilization from the work center
Cum Yield	Cumulative Yield percentage from the routing
TIMB1	Time basis from Item Branch/Plant manufacturing data
TIMB2	Time basis from the Routing Master(F3003)

For example:

Figure B–6   Example of Calculating the Per Unit Lead Time, part 1

$$\underbrace{\frac{\{(6/1) / (0.9 \times 0.72)\} \times 1}{1}}_{OP\text{-}10} + \underbrace{\frac{\{(5/1) / (1 \times 0.72)\} \times 1}{1}}_{OP\text{-}20} + \underbrace{\frac{\{(90/3) / (0.85 \times 0.80)\} \times 1}{100}}_{OP\text{-}30} + \underbrace{\frac{\{(8/2) / (0.95 \times 1)\} \times 1}{1}}_{OP\text{-}40}$$

Figure B–7   Example of Calculating the Per Unit Lead Time, part 2

$$9.259 + 6.994 + 0.441 + 4.211 \quad = \quad 20.86 \text{ Hours per Unit}$$

Although overlap is not shown in the formulae, it does have an effect on all of the leadtime calculations. For example, if OP-20 had 100% overlap, the 6.994 hours would be completed at the same time OP-10 is running, therefore reducing the leadtime per unit by 6.994 hours. Factoring in this overlap to all the preceding calculations, the results would be as follows:

- Level Lead Time = 4.99 or 5 days

- Manufacturing Lead Time = 6 days

- Cumulative Lead Time = 13 days

- Lead Time Per Unit = 13.91 hours

C

Functional Servers

This appendix contains the topic:

Section C.1, "About Functional Servers."

C.1 About Functional Servers

Several JD Edwards World programs access functional servers. The purpose of functional servers is to provide a central location for standard business rules about entering documents, such as vouchers, invoices, and journal entries. These business rules establish the following:

- Data dictionary default values

- Field edits and valid values

- Error processing

- Relationships between fields or applications

The advantages of a functional server are:

- It reduces maintenance of entry programs because edit rules reside in one central location.

- You can standardize documents across all applications because you create them using the same business rules.

- Generally, the user interface (appearance and interaction) of a form is now separate from how a program works.

To set up business rules for an entry program

The steps for setting up business rules for an entry program are:

1. Create a DREAM Writer version for a specific functional server program (for example, XT0411Z1 for voucher entry).

2. Set the processing options within the version according to your company requirements.

3. Specify the version you want the entry program to use in the processing options for that entry program.

You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. JD Edwards World provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.

> **Caution:**
>
> Only the person responsible for system-wide setup should make changes to the functional server version. For more information about how to set up DREAM Writer versions, see the .

Example: Voucher Processing Functional Server

The following programs use the voucher processing functional server. JD Edwards World provides two demo versions of the functional server, ZJDE0001 and ZJDE0002.

- Speed Voucher Entry (P040015)
- Standard Voucher Entry (P04105)
- Void Payment Entry (P4704103)
- Credit Tied to Debit Bill (P041010)
- Multi-Voucher (P041017)
- Calculate Withholding (P04580)

D

Import Mass Data into Manufacturing Systems

Several interactive Manufacturing programs can run in batch mode and accept data from a Z file, allowing you to process mass amounts of data from an outside source easily and efficiently using existing programs to validate the data.

You can process any number of records to add, change, or delete. You also have the advantage of:

- Data selection to limit the records you want to process.

- Processing options that allow you to choose the version of the interactive program to process the records.

- Error report printing.

Generally, the DREAM Writer program number corresponds to the screen and program number with a Z appended to the end. For example, P3006Z corresponds to the Work Center Revisions program P3006.

See:

- Import Using Z File Processing in the *JD Edwards World Technical Tools Guide* for detailed information about Z file processing.

- Overview to Import/Export in the *JD Edwards World Technical Tools Guide* for information about importing data into the system.

The following table includes the Manufacturing Z file processing programs.

Program	Program Name	Z File Program	Z File
P3006	Work Center Revisions	P3006Z	F30006Z
P3003	Routing Master Revisions	P3003Z	F3003HZ (header) and F3003DZ (detail)
P3111	Work Order Parts List Revisions	P3111Z	F3111HZ (header) and F3111DZ (detail)

Program	Program Name	Z File Program	Z File
P311221	Work Order Employee Time Entry	P311221Z	F311221HZ (header) and F311221DZ (detail)
P3112	Work Order Routing Instructions Revisions	P3112Z	F3112HZ (header) and F3112DZ (detail)
P48013	Manufacturing Work Order Entry	P48013Z	F48013Z

Navigation

From Manufacturing Z File Processes (G3001Z), choose an option

Technical Considerations

You can only add data using the Routing Master Revisions - Z File program (P3003Z). You *cannot* use this program to change or delete data.

Processing Options

See the appropriate set of Z file processing options in Chapter 38, "Z File Processing Options".

Data Selection

Do not change the existing data selection. The Processed Y/N field is set to NE Y. This prevents the program from processing records more than once.

You can add additional selections to limit the data.

Data Sequence

Do not change the data sequence.

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