

Guide
June 1996



Shop Floor Control

Discrete Manufacturing

Release A7.3

JDEdwards[®]



Item # A73CEASF

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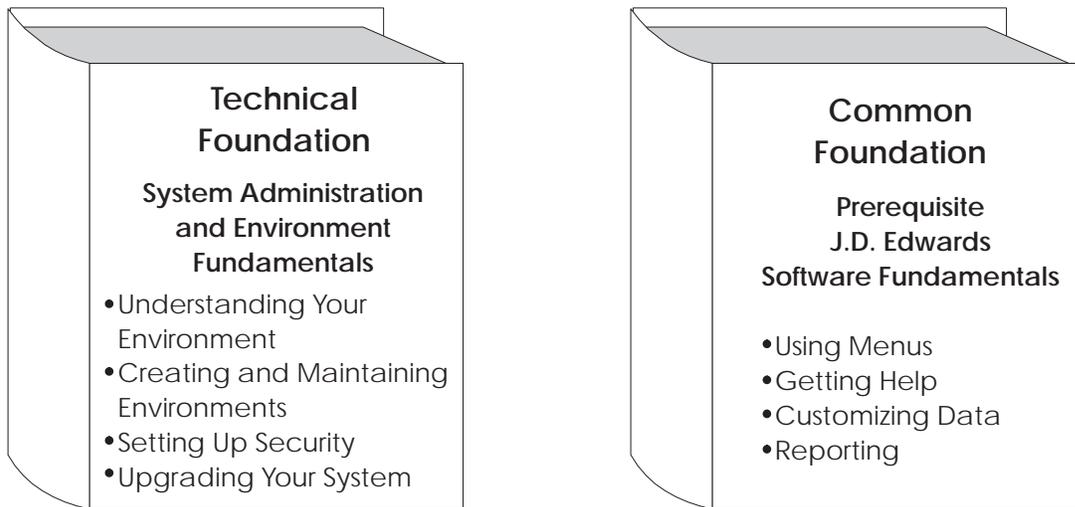
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Where Do I Look?



Guides



Important Note for Students in Training Classes

This guide is a source book for online helps, training classes, and user reference. Training classes may not cover all the topics contained here.

Welcome

About this Guide

This guide provides overviews, illustrations, procedures, and examples for release A7.3 of J.D. Edwards software. Forms (screens and windows) shown are only examples. If your company operates at a different software level, you might find discrepancies between what is shown in this guide and what you see on your screen.

This guide includes examples to help you understand how to use the system. You can access all of the information about a task using either the guide or the online help.

Before using this guide, you should have a fundamental understanding of the system, user defined codes, and category codes. You should also know how to:

- Use the menus
- Enter information in fields
- Add, change, and delete information
- Create and run report versions
- Access online documentation

Audience

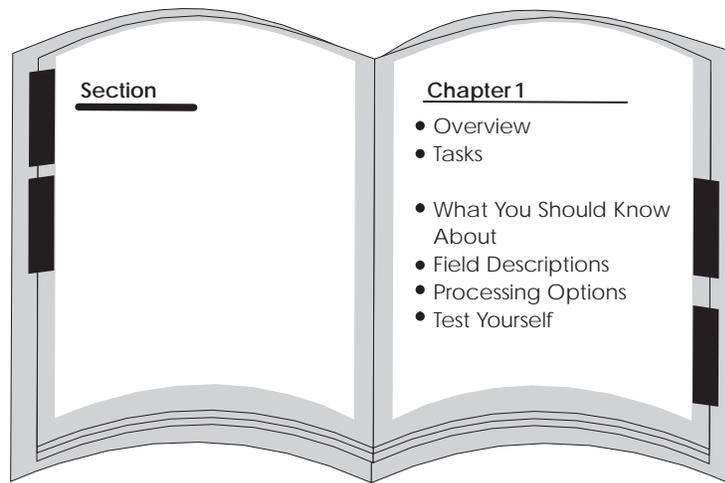
This guide is intended primarily for the following audiences:

- Users
- Classroom instructors
- Client Services personnel
- Consultants and implementation team members

Organization

This guide is divided into sections for each major function. Sections contain chapters for each task or group of related tasks. Each chapter contains the information you need to accomplish the task, run the program, or print the

report. Chapters normally include an overview, form or report samples, and procedures.



When it is appropriate, chapters also might explain automatic accounting instructions, processing options, and warnings or error situations. Some chapters include self-tests for your use outside the classroom.

This guide has a detailed table of contents and an index to help you locate information quickly.

Conventions Used in this Guide

The following terms have specific meanings when used in this guide:

- *Form* refers to a screen or a window.
- *Table* generally means “file.”

We assume an “implied completion” at the end of a series of steps. That is, to complete the procedure described in the series of steps, either press Enter or click OK, except where noted.

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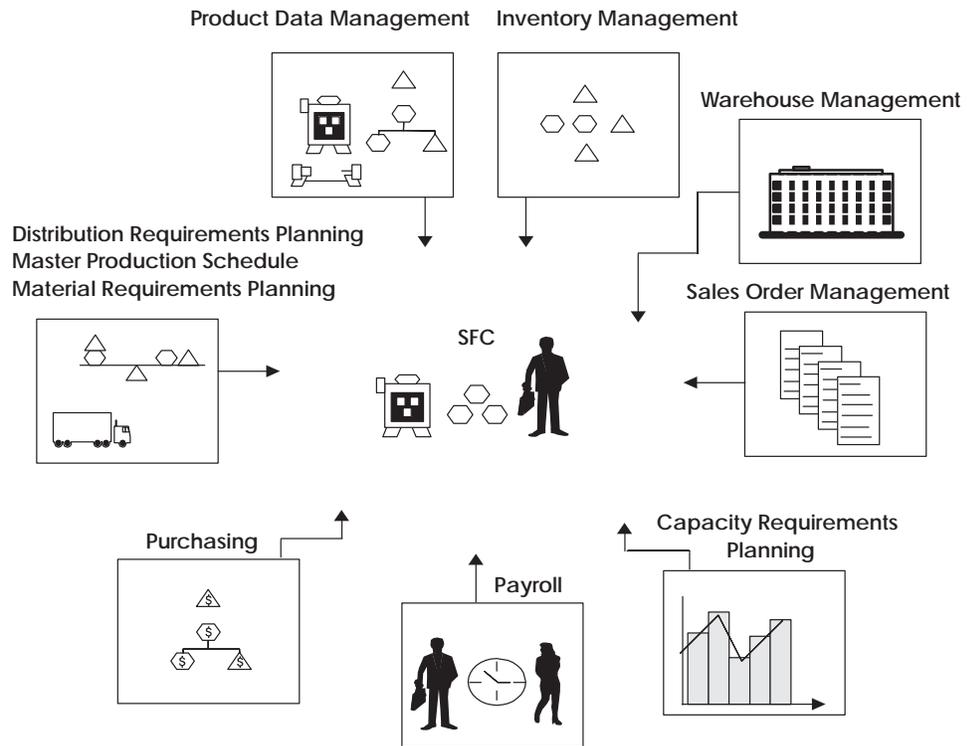
System Overview

System Overview

The J.D. Edwards 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.

System Integration

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



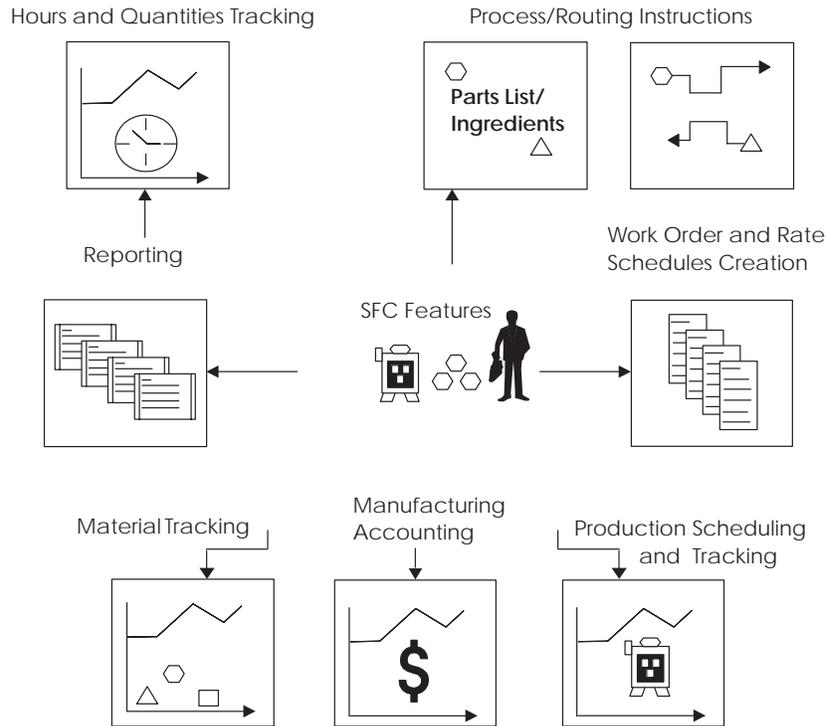
- The *Product Data Management* system provides information about bills of material, work centers, and routings.



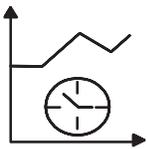
- The *Inventory Management* system allows you to track materials between inventory or storage locations and the shop floor. You can perform inventory issues, commitments, and completions, and track order quantities throughout the production process.
- The *Sales Order Management* system allows you to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

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.



Hours and Quantities Tracking



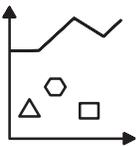
- Enter and track time and quantities completed and scrapped by work order and by employee
- Allocate and track resource usage by work center per calendar month
- Review and analyze reports of work orders with detail by operation of standard versus actual for:
 - Setup, labor, and machine time
 - Quantity complete and scrapped
- Charge actual hours and quantities to a work order as each manufacturing step is completed

Manufacturing Accounting



- Plan and track 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

Material Tracking



- Create a parts list automatically when a work order is processed
- 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 when a Manufacturing system creates a parts list and a work center is not attached to alert the Warehouse Management system, after an availability check, to select a location and move the inventory

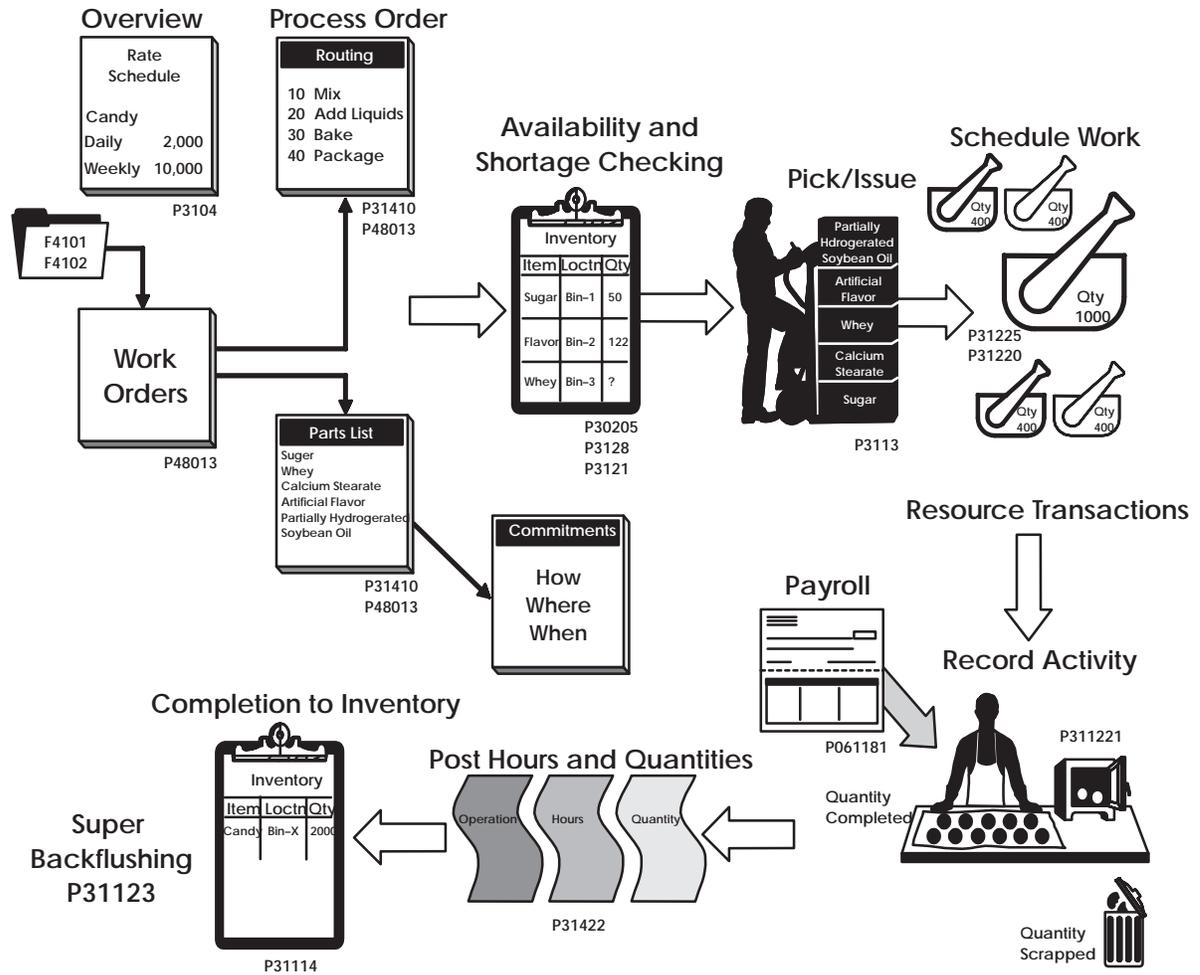
Reporting



- 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

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.



Tables

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

- 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.
- General Rate/Message Records (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.
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.
Rate Schedule Master (F3104)	Contains rate schedules for rate based items.
Work Order Serial Numbers (F3105)	Contains the fields that identify work order assemblies with lot serial numbers.
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.
Rate Schedule Transaction (F3114)	Stores summary transactions from the Rate Schedule Workbench.
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.
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, Purchase Order Management, 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.

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.

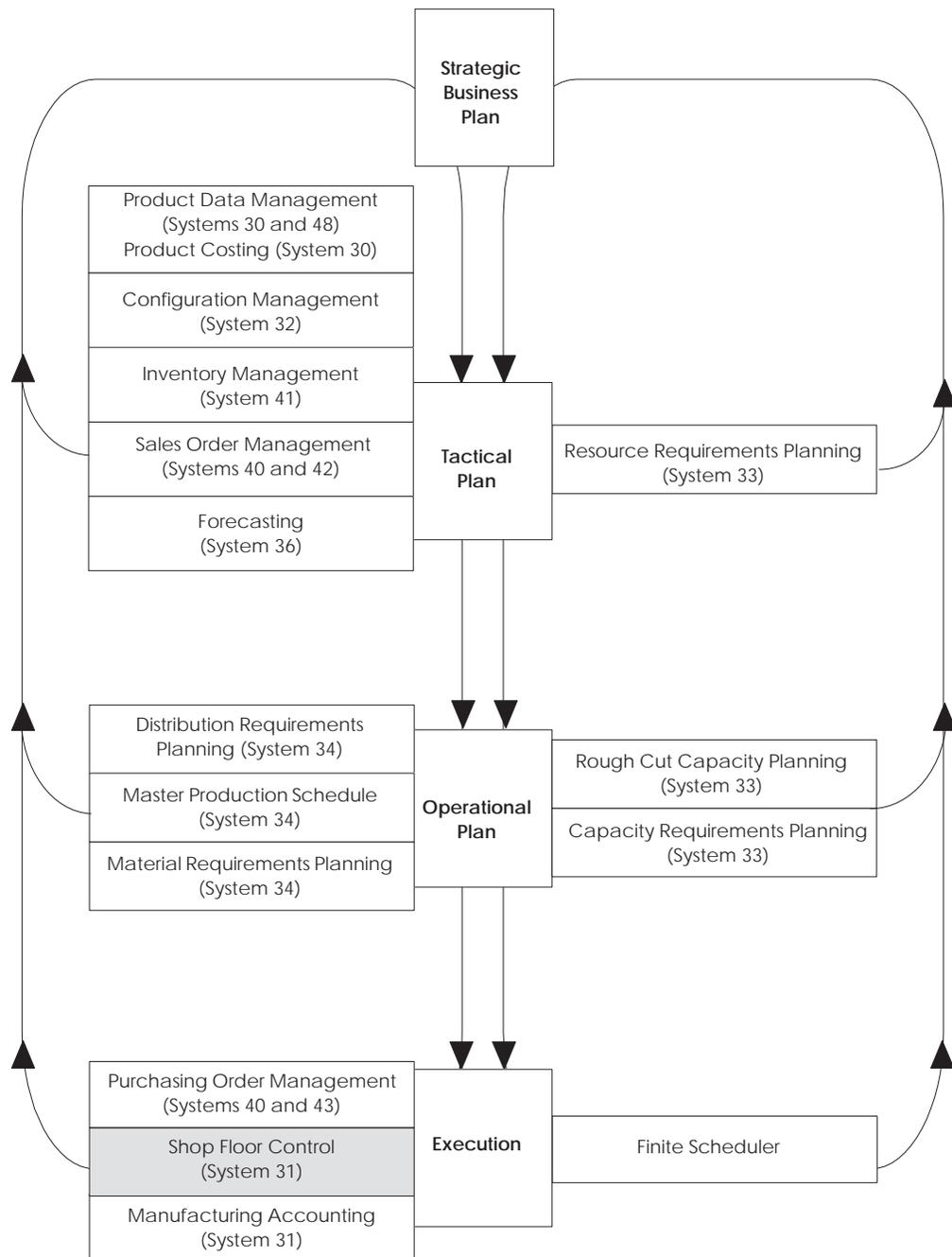
Enterprise Requirements Planning and Execution System

Shop Floor Control is one of the many systems that make up the Enterprise Requirements Planning and Execution (ERP_x) system. The ERP_x system enables you to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. ERP_x 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 J.D. Edwards ERP_x product group.

ERPx®

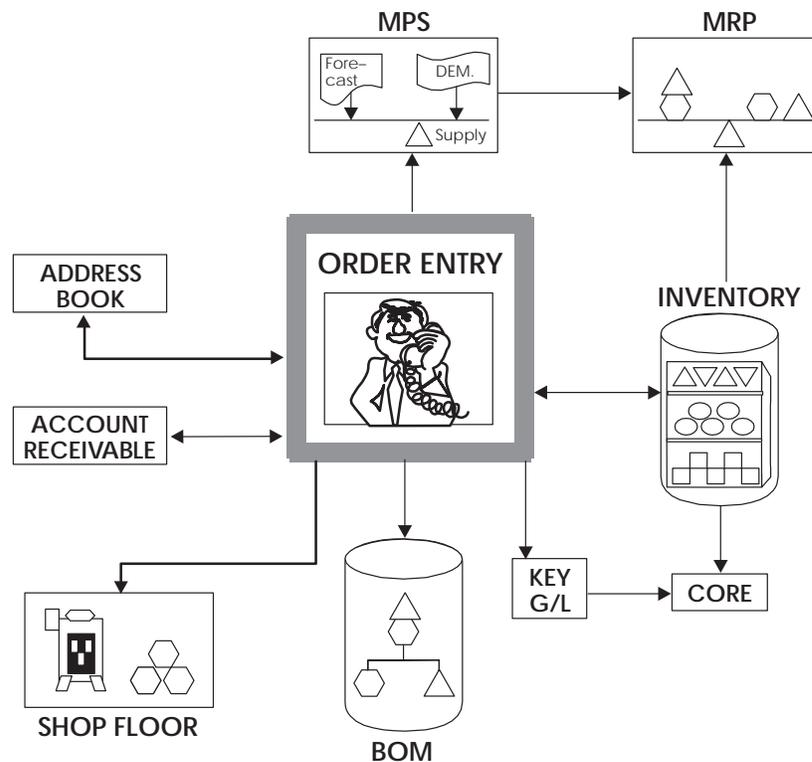
Enterprise Requirements Planning and Execution



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.

The following graphic illustrates the flow of information in sales order entry.



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

Depending on the nature of a business, you might want to generate an actual manufacturing work order from a sales order. Before you can do this, however, you need to address some setup issues in sales orders that relate to manufacturing. These issues are:

- **Order Line Types** — These are all of the various line types in the Sales Order Management system. The last column, WO, indicates whether a work order is to be generated for line type W on the sales order.
- **Non-Kit Work Orders** — For items that are not kits, you enter the sales order in the normal manner. If the processing option is not set to enter line type W, you must do this in the detail form after entering the item number and quantity but before accepting the data.
- **Kit Work Orders** — For these items, the stocking type on the Branch/Plant form must be set to K for Kits.

After you complete these tasks, you can view the manufacturing work order. The sales order number is entered in the Reference field of the Manufacturing Work Order form. The Sales Order Management system does not automatically attach the parts list and routing to the work order. You do this in the Shop Floor Control system.

Features of Sales Order Management

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

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

Flexibility

- Kit processing (bills of materials)
- User defined order types, transaction types, and transaction flow
- User controlled format and functions of order entry form
- Messages for specifications and/or 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

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

Tables

The major tables for the Sales Order Management system are:

Billing Instructions (F4205)	Maintains default values for customer-specific delivery and billing information.
Price by Item (F4207)	Defines specific price breaks for inventory items or groups of items.
Price by Customer (F4208)	Relates specific customers or customer groupings to inventory pricing rules or contract prices.
Order Hold Constants (F42008)	Provides user defined codes and release passwords for credit, margin, and other needed order hold codes.

The transaction tables for the Sales Order Management system are:

Sales Order Header (F4201)	Maintains the billing instructions and addressing and delivery information for a customer's order.
Sales Order Detail (F4211)	Contains complete information for each line of each sales order.
Sales Order History (F42119)	History table for the detail line of sales order activity.
Held Orders (F4209)	Contains one detail record per order (line) per hold code in effect.
Sales Summary History (F4229)	Provides item, customer, and category information used for sales analysis reporting.

The supporting tables for the Sales Order Management system are:

Address Book (F0101)	Contains customer addressing, receivables, and category information. Used in conjunction with Billing Instructions to create a Sales Order Header record.
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.
Account Master (F0901)	Maintains the account data for the general ledger.
Account Ledger (F0911)	Stores the transaction records for the general ledger.
General Constants (F0009)	Defines company processing for general accounting.
Automatic Accounting Instructions Master (F0012)	Used to define the interfaces between various J.D. Edwards systems and the General Accounting system.
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.
Bill of Materials Master (F3002)	Defines and maintains warehouse (plant level) information about bills of materials, such as cost and quantities of components, as well as features, options, and levels of detail for each bill.
Tax Areas (F4008)	Stores definitions of geographic locales, their taxing authorities, and tax rates.
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, Purchase Order Management, and General Accounting.

Purchase Order Management System

Purchasing is the execution of the internal schedule through the acquisition of material or services from an external source. You use the Purchase Order Management system to obtain the best quality parts at the most reasonable rates at the correct time.

After entering a purchase order and its detail information, you can record the receipt of an order line. The following graphic illustrates the flow of information in the Purchase Order Management system.

Features of Purchase Order Management

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

Simplicity

- Automatic order numbering.
- Shared tables with the Inventory Management system for automatic costing of purchase orders. Tracks number of orders placed, leadtime, and unit costs. Quantities on order are reflected in inventory inquiries.
- Online order summary and total.
- Standard form formats for entry programs provide ease of learning.

Flexibility

- Combined inventory/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.

Adaptability

- Multiple receipts, or receipt with a cancel remaining, or open order line cancel allowed, as required
- Fully integrated with other J.D. Edwards systems, including Inventory Management, Accounts Payable, General Accounting, and Address Book systems
- A matching function in Accounts Payable and Purchase Order Management 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

Tables

The major tables for the Purchase Order Management system are:

Customer Purchasing Instructions (F4305)	Maintains default values for customer-specific delivery and billing information.
Price by Item (F4207)	Defines specific price breaks for inventory items or groups of items.
Price by Customer (F4208)	Relates specific customer or customer groupings to inventory pricing rules or contract prices.
Order Hold Constants (F42008)	Provides user defined codes and release passwords for quantity holds and needed order hold codes.

The transaction tables for the Purchase Order Management system are:

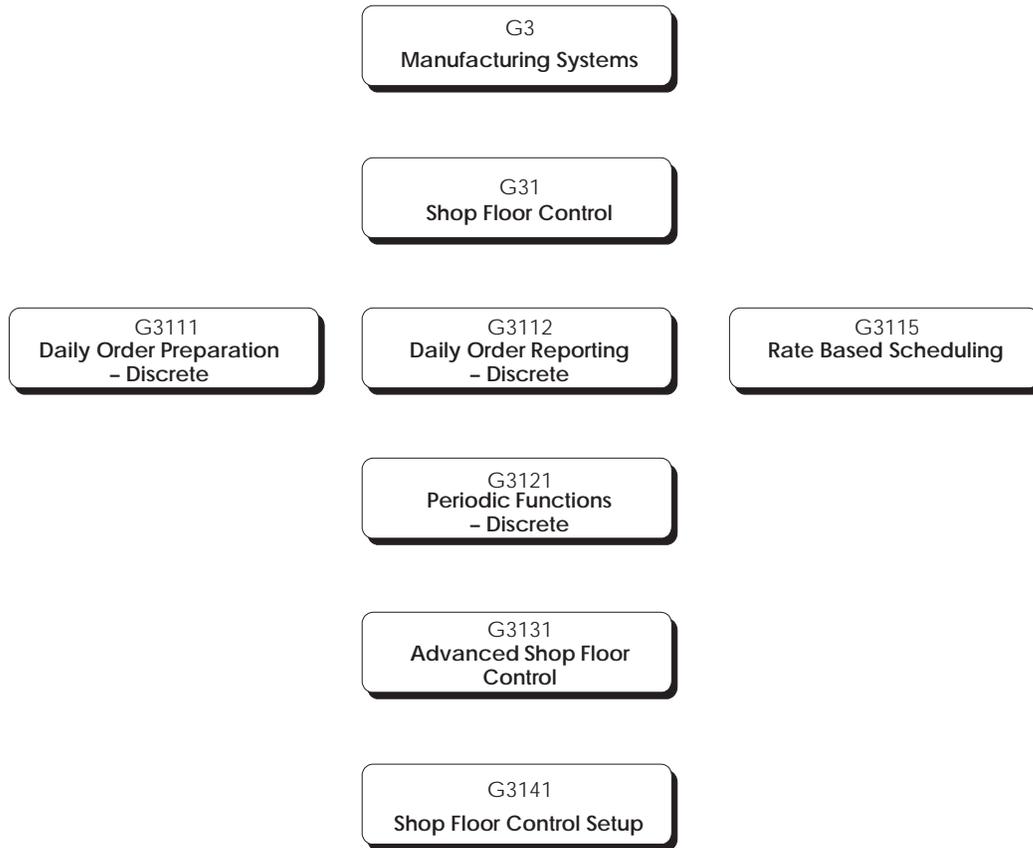
Purchase Order Header (F4301)	Maintains the customer instructions, and addressing and delivery information for a purchase order.
Purchase Order Detail (F4311)	Contains complete information for each line of each purchase order.
Purchase Order Receiver (F4312)	Contains complete information for each purchase order line received.
Purchase Order Detail Ledger (F43199)	History table for purchase order detail line activity. Format can be user defined.

The supporting tables for the Purchase Order Management system are:

Address Book (F0101)	Contains customer addressing, history, and category information. Used in conjunction with Customer Instructions to create a Purchase Order Header record.
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.

Account Master (F0901)	Account Master. Maintains the account data for the general ledger.
Account Ledger (F0911)	Account Ledger. Stores the transaction records for the general ledger.
General Constants (F0009)	General Constants. Defines company processing for general accounting.
Automatic Accounting Instructions Master (F0012)	Automatic Accounting Instructions Master. Used to define the interfaces between various J.D. Edwards systems and the General Accounting system.
Item Master (F4101)	Item Master. Stores basic information about each item defined for inventory, such as description, search name, and units of measure.
Item Branch (F4102)	Item Branch. Defines and maintains warehouse or plant level information, such as costs, quantities, category codes, and physical locations.
Bill of Materials Master (F3002)	Bill of Materials Master. 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.
Tax Areas (F4008)	Tax Areas. Stores definitions of geographic locales, their taxing authorities, and tax rates.
Inventory Constants (F41001)	Inventory Constants. 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, Purchase Order Management, and General Accounting.

Menu Overview



Fast Path Commands

The following table illustrates the fast path commands you can use to move among the Shop Floor Control menus. From any menu, enter the fast path command at the command line.

Fast Path	Menu	Title
ASF	G3131	Advanced Shop Floor Control
DMA	G3121	Periodic Functions - Discrete
DOPD	G3111	Daily Order Preparation - Discrete
DORD	G3112	Daily Order Reporting - Discrete
DRB	G3115	Rate Based Scheduling
SFCS	G3141	Shop Floor Control Setup

Discrete Manufacturing

Discrete Manufacturing

Objectives

- To understand the difference between a work order and a rate schedule and under what conditions each is appropriate
- 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

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 rate schedules (optional)



- Creating rate schedules (optional)
- Understanding commitments
- Working with commitments
- Understanding grade and potency
- Understanding lot processing
- Entering lot information
- Working with lot availability
- Working with lot transactions
- Changing lot classifications (optional)
- Reviewing availability and shortages (optional)
- Understanding issues
- Issuing materials
- Scheduling work orders
- Working with hours and quantities
- Completing work orders
- Completing rate schedules
- Revising the status of a work order
- Reviewing information (optional)
- Printing material and operation reports (optional)

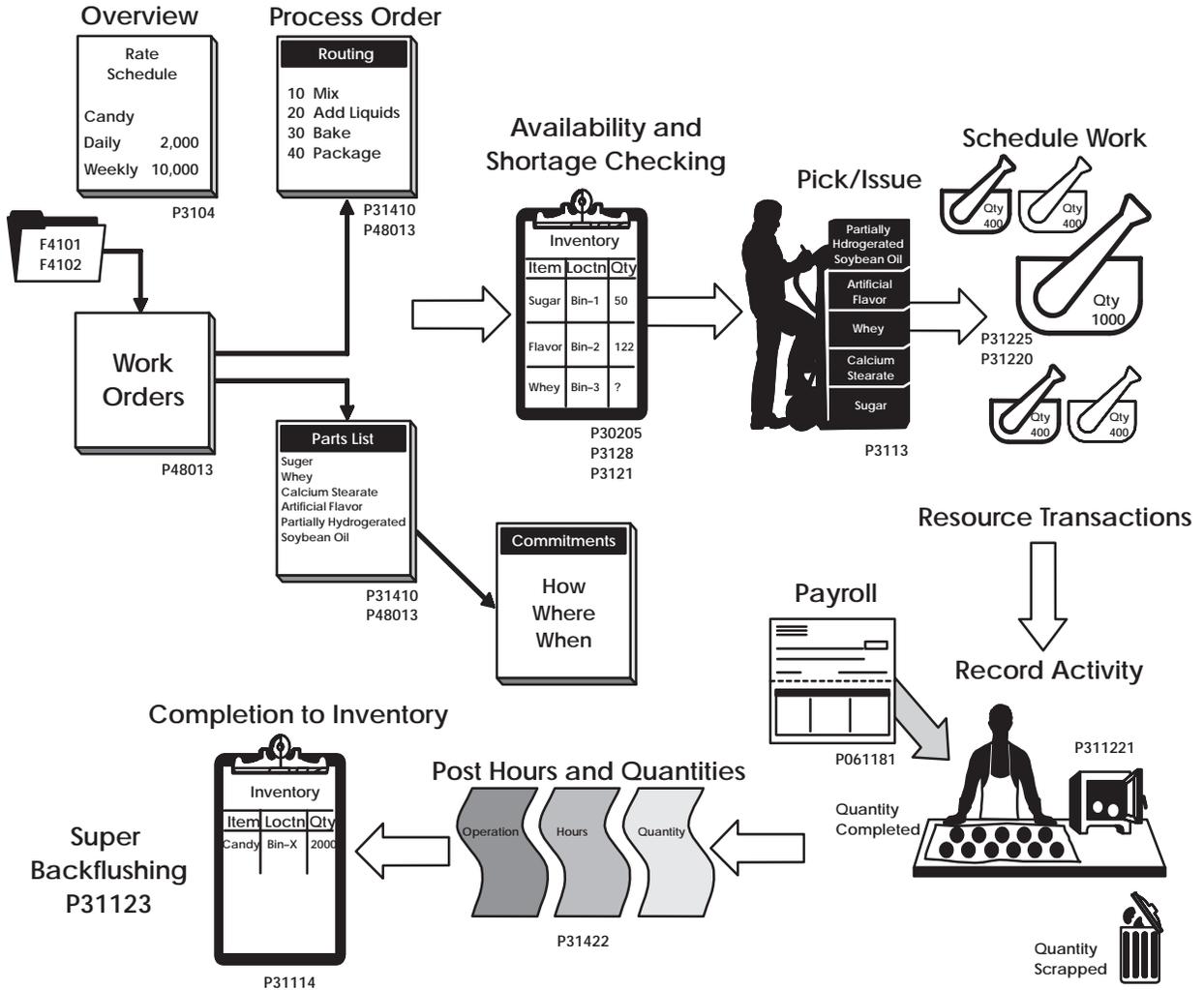
How Are Units of Measure Used?

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.

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.



Understand Work Orders

About Work Orders

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.

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

- MRP
- Manually
- Work Order from Sales Order

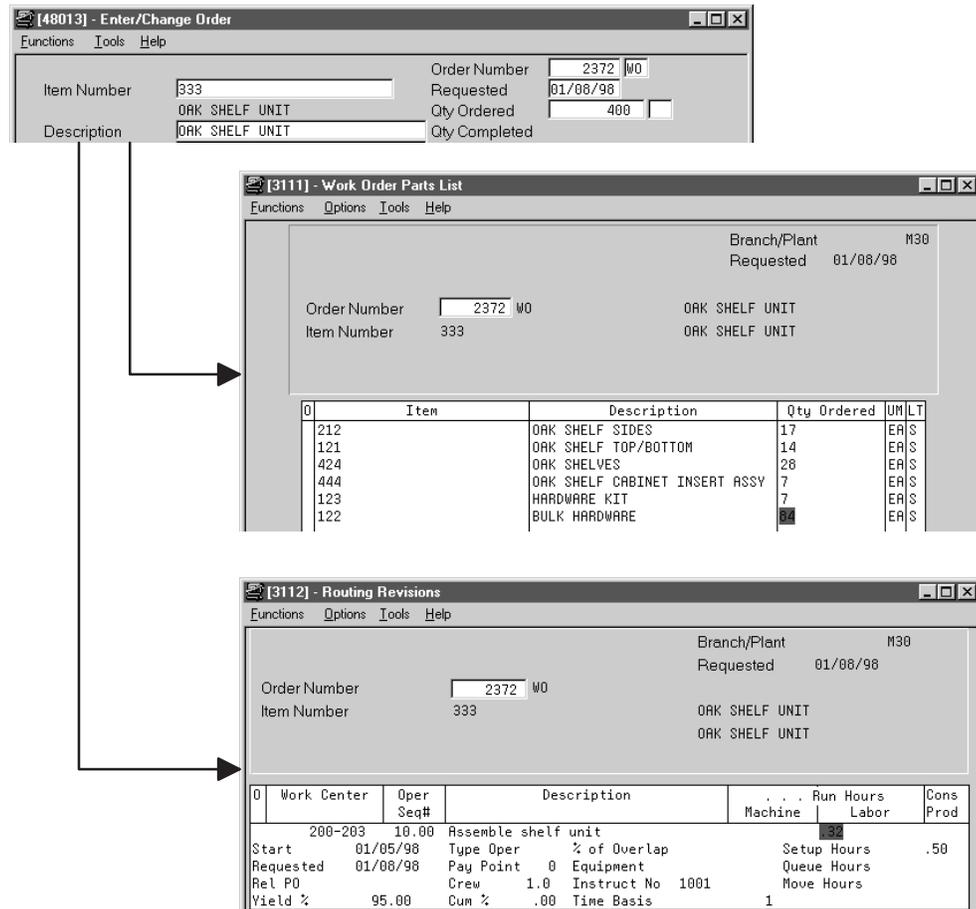
You then attach the parts list and routing instructions either manually or using a batch program. This batch program also allows you to process multiple work orders, which includes:

- 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.



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.

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.

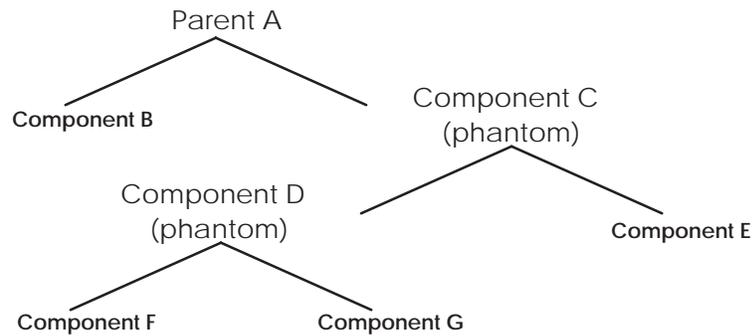
Components are included in or excluded from the parts list for a work order based on their effectivity dates. The quantity of each component is increased by its scrap factor and operation scrap, if applicable.

Phantom Items

The Material Requirements Planning (MRP) system ignores phantom items when they are used in planning or in the Manufacturing Accounting and Inventory Management systems, but includes lower-level components for phantom items in the parts list for the work order. Phantom items:

- Are not planned by MRP
- Are not tracked in inventory
- 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.



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. 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.

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.

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 run order processing 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.

Discrete Manufacturing

[4312] - Enter Receipts by PO

Functions Options Tools Help

Mode (F) Base Co USD Currency Code Received (Y)
 Exchange Rate Branch/Plant *
 Order Number 9163 OP G/L Date 04/26/96
 Supplier 2004344 Universal Supply
 Received (Y) 04/26/96
 Received (Y)
 Supplier Remark
 Container I.D. Skip To Line

0	Item/Account	Quantity	UM	Unit Cost	Extended Cost
1	333+0P25	10	EA	.0000	
	Description Outside Processing			Subledger 00138958	
	Description 2 Outside treatment			Cost Rule W	
	Supplier Rmk			Reason Code	
	Asset ID			Purchasing UOM EA	
	Container I.D.			Line Number 1.000	
	Branch/Plant M30			Requested 05/26/98	
	Location			Promised Deliver 05/26/98	
	Lot/SN				

Agreement Nb

Opt: 1=Receive 4=Multi Loc 7=Close 8=Reverse 9=Cancel F24=More Keys

3103 Routing Quantities and Status

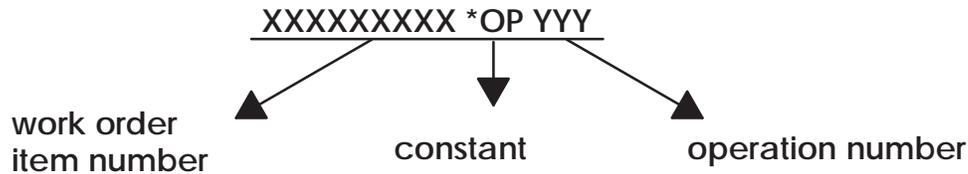
Functions Tools Help

Item 333 Outside Processing

Order Number	Oper TY	Seq	... Quantities ...	OP
			Completed	Scrapped UM ST
140530	W0	25.00	<input type="text" value="2"/>	<input type="text"/> EA <input type="checkbox"/>
Current Values			1	EA

F3=Exit F15=Quantity Status F24=More Keys

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.



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.

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.

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 = 10/15/98
- Level leadtime = three days
- Start date = 10/12/98

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 back scheduling.

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:

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

For example:

- Work order due date = 10/15/98
- 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 10/13/98.

See Also

- *Appendix C – Leadtimes*

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

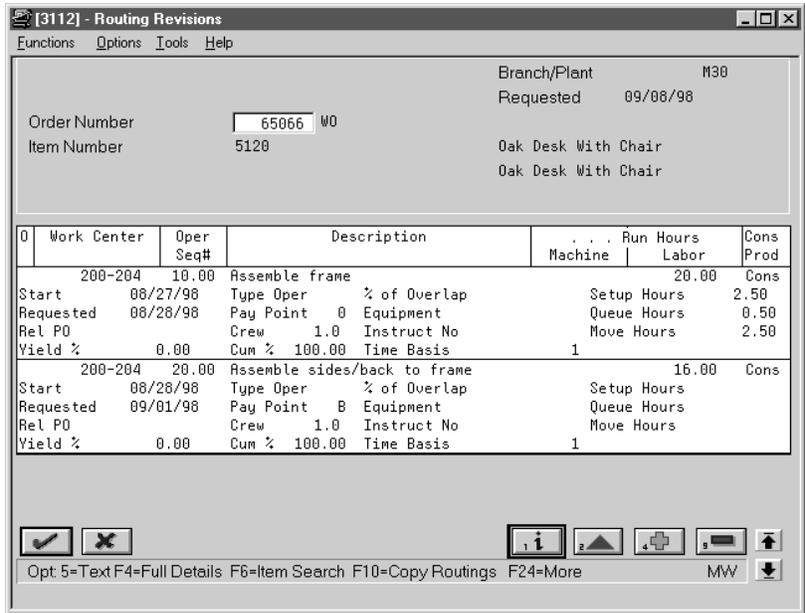
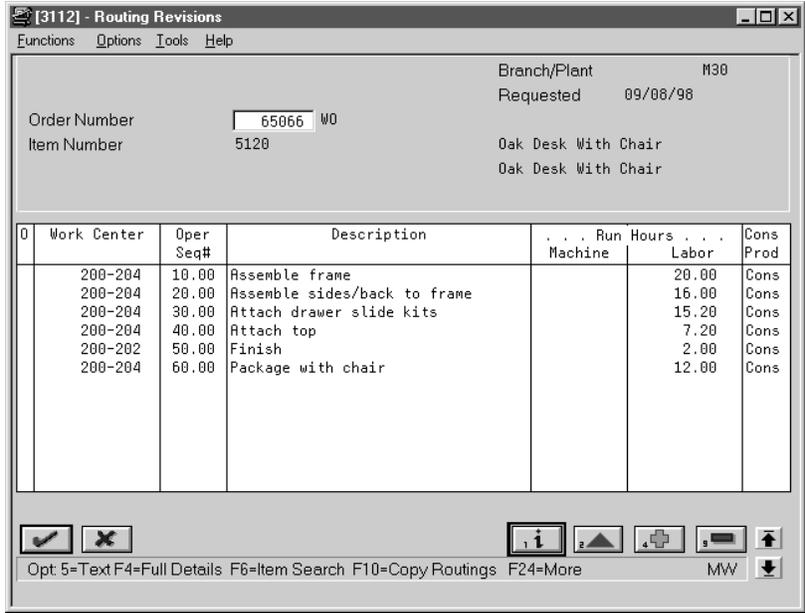
Shop paperwork can only be generated when you process the work order using the batch program.

What Is Backscheduling?

In order to meet the MRP required date for an order, the system assigns a completion date for the work order header 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 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.

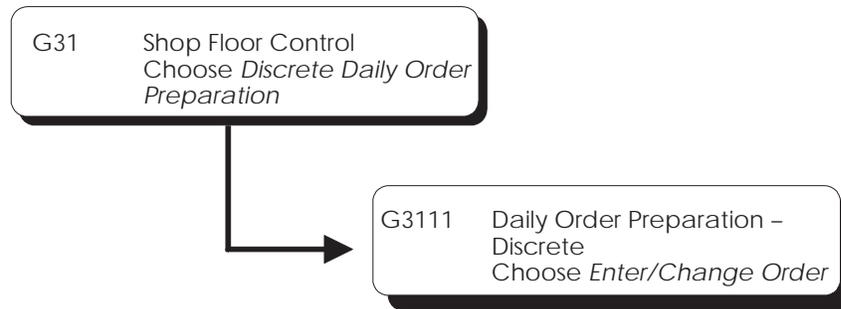


After you have defined your work order routing, the system:

- 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 (move, run, then queue 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.

Create Work Orders



Creating 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:

- Entering work order headers
- Attaching the parts list interactively (optional)
- Attaching the routing instructions interactively (optional)
- Assigning serial numbers (optional)

Entering Work Order Headers

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

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

Use 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 *Setting Up Shop Floor Calendar*.
- Set up the document types you use to identify different work order types in the following places:
 - User Defined Codes (system 00/code DT) program
 - 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 needed to complete a work order before you create the work order. See *Reviewing Availability and Shortages*.
- Set up valid work center locations. See *Setting Up Work Centers*.

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

The screenshot shows the 'Enter/Change Order' form with the following data:

Item Number	4218	Order Number	123721	WO
Description	ORAK DESK TOP 30 x 60	Requested	07/07/98	
Status Comment		Qty Ordered	20	EA
Bill Type	M Standard Manufacturing Bi	Qty Completed		
Routing Type	M Standard Manufacturing Ro	Order w/Shrink	21	
Type		Branch/Plant	M30	
Status	10 Released (Firm) Not Start	Lot Number		
Priority		Charge to CC	M30	
Category Code 1		Cost Code		
Category Code 2		Start Date	07/01/98	
Category Code 3		W.O. Date	04/12/95	
Reference		Completed		
Planner	9200 Dobson, Jane	Parent W.O. No		
Supervisor		Revision Level		
Customer		Freeze Code		
Remarks	ORAK DESK TOP 30 x 60			

At the bottom of the form, there are function keys: F5=Detail, F6=Parts List, F8=Routing, F15=Address, F24=More, and MW.

What You Should Know About

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. This form displays blank fields 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.

Manufacturing Accounting system

If you are using summarized journal entries in Manufacturing Accounting, the system creates a new work order number for the batch of work orders being summarized. However, you cannot locate this new work order number on the Enter/Change Order form. See *Reviewing Summarized Work Orders* in the *Manufacturing Accounting Guide*.

► 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	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: <ul style="list-style-type: none">• Branch/Plant (MMCU)• Dept A (MCU)• Dept B (MCU)• Job 123 (MCU) Business unit security is based on the higher-level business unit.

► To enter scheduling information

If a scheduling problem exists on your work order, the system displays an error message. 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	<p>The date that an item is to arrive or that an action is to be complete.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control</p> <p>When you change the requested date:</p> <ul style="list-style-type: none"> • 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.
Quantity Ordered	<p>The quantity of units affected by this transaction.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control discrete manufacturing:</p> <p>When you change the order quantity, the system recalculates the following:</p> <ul style="list-style-type: none"> • The component-required quantities and commitments • The operation start and complete dates, if the leadtimes are variable <p>In the process industry:</p> <p>The quantity of co-/by-products produced by the process.</p>

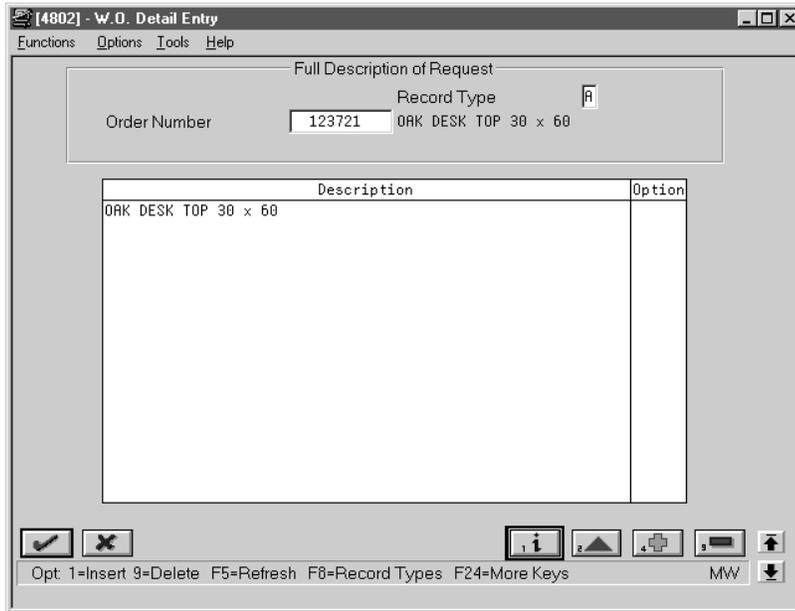
► To enter descriptive information

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

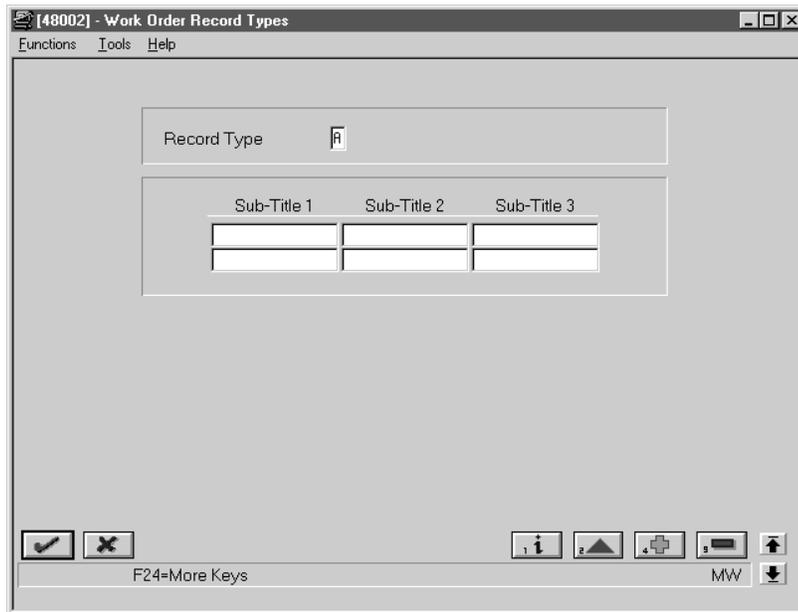
2. Choose Work Order Detail Entry.



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.



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.

The screenshot shows a software window titled "[48016] - Work Order - Category Codes". The window contains a list of fields for data entry:

- W.O. Number: 123721
- W.O. Flash Message: []
- Phase: []
- Category 02: []
- Category 03: []
- Category 04: []
- Category 05: []
- Status: []
- Service Type: []
- Skill Type: []
- Experience Level: []
- Category 10: []
- Originator: []
- Supervisor: []
- Std. Desc: []
- Search X-Ref: []

The window also has a menu bar (Functions, Tools, Help) and a toolbar with various icons. A status bar at the bottom shows "F2=Standard Desc Text F24=More Keys".

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 – W.O.	<p>A user defined code (system 00, type TY) that indicates the type classification of a work order or engineering change order.</p> <p>You can use work order type as a selection criteria for work order approvals.</p>
Priority – W.O.	<p>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.</p> <p>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.</p>
Remarks	<p>Extended description field for work order information.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>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.</p>
Lot	<p>A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.</p>

Field	Explanation
Parent Work Order Number	<p>This is the parent work order number. You can use this number to:</p> <ol style="list-style-type: none"> 1. Enter default values for newly added work orders, for example, Type, Priority, Status, or Manager. 2. Group work orders for project setup and DREAM Writer selection. <p>Specify a work order number to display related ECO work orders.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>You can manually enter this number to:</p> <ul style="list-style-type: none"> • 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 DREAM Writer selection
Revision Level	<p>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.</p>
Subtitle I, II, and III	<p>A subtitle, description, remark, name, or address.</p> <p>The text you type in this field appears as a column head on the Work Order Detail Entry form for the record type indicated.</p>
Phase (Category 01)	<p>A user defined code (system 00, type 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.</p> <p>NOTE: A processing option for some forms lets you enter a default value for this field, which the system displays 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.)</p>
Status	<p>A user defined code (system 00, type W6) that indicates the status of the work order.</p>
Service Type	<p>A user defined code (system 00, type W7) that indicates the service type for the work order.</p>

Field	Explanation
Skill Type	<p>The type or category of work order.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>A user defined code (system 00, type W8) that indicates the skill type for the work order.</p>
Experience Level	<p>The type or category of work order.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>A user defined code (system 00, type W9) that indicates the experience level for the work order.</p>
Originator	<p>The address book number of the person who originated the change request.</p>
Supervisor	<p>The address book number of the supervisor.</p> <p>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 at 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.</p>
Standard Description	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>For Equipment/Plant Maintenance users:</p> <p>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.</p>
Search Cross Reference	<p>An alphanumeric value used as a cross-reference or secondary reference number. Typically, this is the customer number, supplier number, or job number.</p>

► 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	<p>A user defined code (system 00, type 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.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>A processing option for order entry lets you enter a default value for this field.</p>
Freeze Code	<p>A code that indicates if the order is frozen. MPS/MRP will not plan for frozen orders.</p> <p>Valid codes are:</p> <p style="padding-left: 20px;">Y Yes, freeze the order</p> <p style="padding-left: 20px;">N No, do not freeze the order (Default)</p>

▶ 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	<p>The address book number of a manager or planner.</p> <p>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.)</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>If you leave this field blank, the system uses the planner for the item in the Branch/Plant table.</p>
Customer	<p>A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, special mailing addresses, and so on.</p>

► 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 Sales Order	<p>A number that identifies a secondary purchase order, sales order, or work order associated with the original order. This is for information only.</p>

► 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:

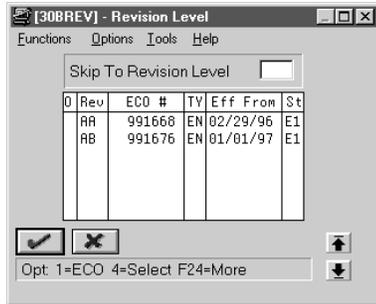
- Charge to Cost Center
- Cost Code

Field	Explanation
Charge to Cost Center	<p>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. The Business Unit field is alphanumeric.</p> <p>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 A/P and A/R by business units, to track equipment by responsible department.</p> <p>Business unit security can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses this value for Journal Entries if a value is not entered in the AAI table.</p> <p>..... <i>Form-specific information</i></p> <p>The default business unit for journal entries for the work order. The business unit on the AAI tables must be blank.</p>
Cost Code	<p>A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control and Manufacturing Accounting:</p> <p>If a value is not entered in the AAI table for subsidiary account, the system uses this value as a default in journal entries.</p>

► 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.



2. On Revision Level, select the revision level to be placed on the work order header.

The system closes the Revision Level window.

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

Field	Explanation
Bill 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.

Processing Options for Enter/Change Order

BACKSCHEDULING INFORMATION:

1. Enter the Unit of Measure Code _____

RECALCULATION OPTIONS:

2. Enter a '1' to automatically recalculate Parts List and Routing dates, hours and quantities. _____

ITEM LOCATION VALIDATION:

3. Enter a '1' to validate for existing Branch/Item record. _____

CHARGE TO BUSINESS UNIT DEFAULT:

4. 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:

5. Enter the version of Bill Availability to be called. Default is ZJDE0001. _____

DEFAULT PROCESSING:

- 6. Enter defaults for the following:
 - a. Document Type (Default is 'WO') _____
 - b. Type (Optional) _____
 - c. Priority (Optional) _____
 - d. Beginning Status (Optional) _____

- 6. (CONTINUED)
Enter default values for the following:
 - e. Category Code 1 (Optional) _____
 - f. Category Code 2 (Optional) _____
 - g. Category Code 3 (Optional) _____
 Or enter Item Branch Class Code fields to retrieve default values.
 - h. Category Code 1 (Optional) _____
 - i. Category Code 2 (Optional) _____
 - j. Category Code 3 (Optional) _____

SALES ORDER HOLD CODE:

- 7. Enter the Hold Code for the related sales order if the work order quantity or date changes. Blanks will not update the sales order. _____

PURCHASE ORDER HOLD CODE:

- 8. Enter the Hold Code for the related purchase order if the work order quantity or date changes. Blanks will not update the purchase order. Note- The purchase order will be updated only if the work order routings are recalculated. _____

FIELD DISPLAY:

- 9. Enter a '1' by the following fields to activate them:
 - a. Bill Type _____
 - b. Routing Type _____

PROCESS MANUFACTURING PROCESSING:

- 10. Enter a '1' to create the Resource List records for Co-/By-Products when a process work order is entered. If left blank, the Co-/By-Product resource list records will be created when the ingredients list is created. _____

INTERACTIVE BILL/ROUTING ATTACHMENT:

- 11. Enter a '1' to automatically create the WO Routing Instructions when creating the WO Parts List on-line. _____
- 12. Enter a '1' to automatically create the WO Parts List when creating the WO Routing Instructions on-line. _____

COMMITMENT AND SUBSTITUTE PROCESSING:

- 13. Enter commitment option for creating the WO Parts List on-line. _____
 - Blank - Commit to primary location
 - 1 - Commit per Commitment Control in Mfg Constants (P3009)
 - 2 - Same as '1', but use

- 3 substitutes for shortages
- Same as '1', but display substitute availability window when substitute qty available can cover shortage

ECO PROCESSING:

- 14. Enter the version of the ECO header to call from Revisions Window (P30BREV). If left blank, version ZJDE0001 will be used. _____

SERIAL NUMBER PROCESSING:

- 15. Enter the version of Assign Serial Numbers to call. If left blank, version ZJDE0001 will be used. _____

PRIOR REVISIONS:

- 16. Enter a '1' to permit attaching parts lists at prior revision levels. If left blank, prior revision levels will not be used. _____

WAREHOUSE PROCESSING:

- 17. Enter the request processing mode
 ' ' = No pick requests
 '1' = Generate requests only
 '2' = Generate requests and process using the subsystem _____

- 18. If processing pick requests using the subsystem, enter the DREAM Writer version to use. If blank, XJDE0002 is used.
(See Form ID P46171) _____

- 19. Enter the default staging location for moving goods out of the warehouse. The parts picked from the warehouse are staged at this location prior to use within manufacturing. (F1=Location Window) _____

- 20. 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. This option only applies to parts without work center locations. _____

QUALITY MANAGEMENT PROCESSING:

- 21. Enter a '1' to attach the Work Order/Routing tests on-line. _____

GENERIC TEXT COPY OPTIONS:

- 22. Enter a '1' to copy component generic text to the parts list. _____
- 23. Enter a '1' to copy the operation's generic text to the work order routing. _____

OBSOLETE ITEMS:

- 24. Enter the cross reference code for retrieving item replacements for _____

obsolete items.

What You Should Know About Processing Options

Obsolete Items (24)

When you enter an order that contains an item that will be obsolete for your work order time frame, the system lets you specify a replacement item if you set the processing option to R.

Attaching the Parts List Interactively

After you have entered 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
- In batch mode, using the Order Processing program

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 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 window when substitute quantity available can cover the shortage

Attaching the parts list interactively includes the following tasks:

- *Attaching the parts list*

- *Entering substitutions* (optional)
- *Choosing substitute items* (optional)
- *Entering multiple locations* (optional)

What You Should Know About

Attaching the parts list manually	You use the manual method if you need to change a part on the bill of material or attach different substitutes. Or, you can change these parts after interactive or batch attachment.
Attaching the parts list using the batch program	Use the Order Processing program, and the appropriate processing option, to attach the parts list to the work order header.
Copying a parts list from one work order to another	You can copy the parts list of a previously entered work order and attach it to a new work order. To do so: <ul style="list-style-type: none">• Locate the parts list of the existing work order• Change the order number to the new work order• Add the record
Using the generic text window	<p>Access the Work Order Component Master Text 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 you make to the text will not impact the text that was originally attached to the bill of material.</p> <p>You can also access the User Information and Text Model Selection windows to view user and date updates, as well as model selections.</p>

Warehouse Management interface

If you are using Warehouse Management and generating a parts list, the system searches for inventory in the staging or work center location. If you did not define a staging or work center location or inventory is not located, 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.

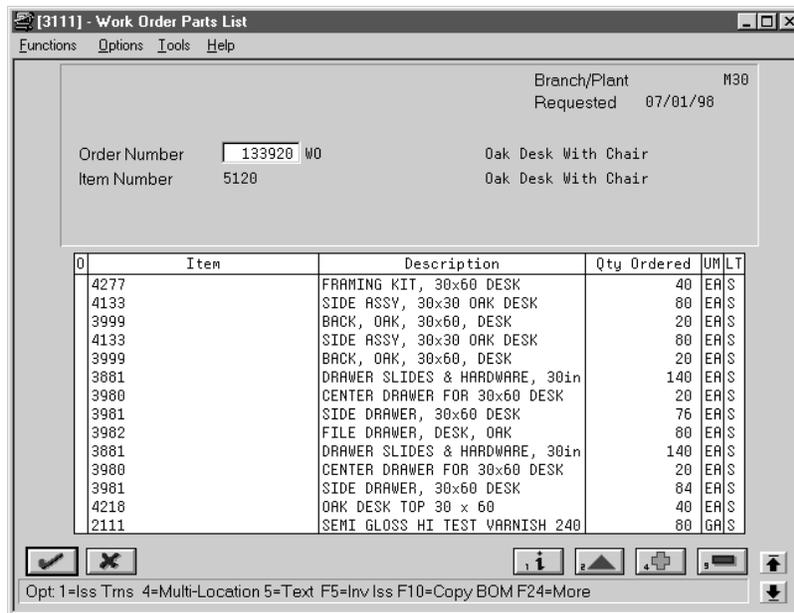
If you need to recreate the parts list and the items are in warehouse two things may occur:

- Order Processing (P31415) prints In Warehouse for all items with the proper material status code
- Order Processing (P31410) prints a message indicating warehouse pick request exists, parts list not generated

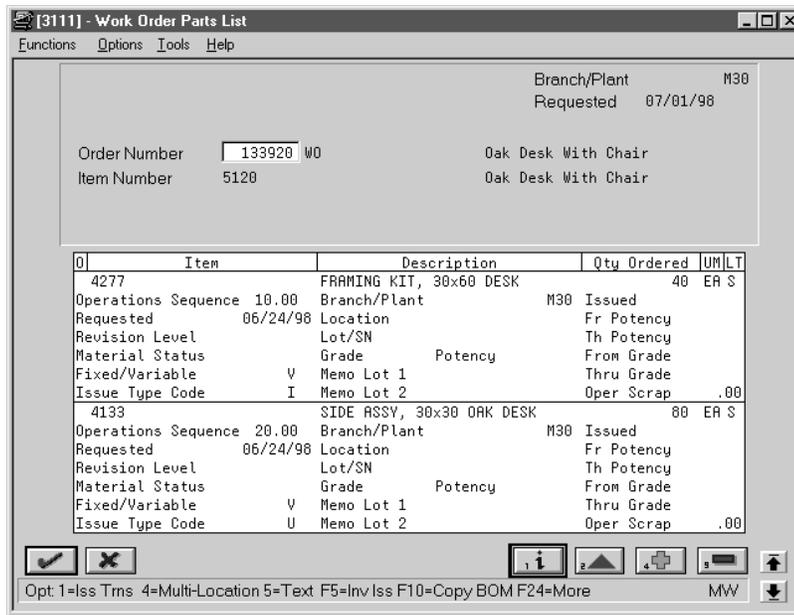
▶ **To attach the parts list**

On Enter/Change Order

1. Choose Work Order Parts List.



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 fold area.



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

Field	Explanation
Description	A brief description of an item, a remark, or an explanation.
Line Type	<p>A code that controls how the system treats 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. For example:</p> <ul style="list-style-type: none"> S Stock item J Job cost N Non-stock item F Freight T Text information M Miscellaneous charges and credits
Quantity Ordered Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>

Field	Explanation
Operation Sequence	<p>In routings, used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, 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.</p> <p>In engineering change orders, used to sequence the assembly steps for the engineering change.</p> <p>Skip To fields allow you to enter an operation sequence that you want to begin the display of information.</p> <p>You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.</p> <p>In the process, the sequence number that produces the intermediate product.</p>
Revision Level	<p>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).</p>
Material Status	<p>A code (table 31/MS) that identifies the current status of a particular component on the work order.</p>
Fixed or Variable Quantity	<p>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:</p> <ul style="list-style-type: none">F Fixed QuantityV Variable Quantity (Default)% Quantities are expressed as a percentage and must total 100% <p>For fixed quantity components, the Work Order and MRP systems do not extend the component's quantity per assembly value by the order quantity.</p> <p>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.</p>

Field	Explanation
Issue Type Code	<p>A code that defines how each component in the bill of material is issued from stock. In shop floor control, it indicates how a part is issued to a work order. Valid codes are:</p> <ul style="list-style-type: none"> 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 <p>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.</p>
Potency	<p>A code that indicates the potency of the lot 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).</p>
Grade	<p>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:</p> <ul style="list-style-type: none"> A1 premium grade A2 secondary grade <p>The grade for a lot is stored in Lot Master table (F4108).</p>
From Potency	<p>A number that indicates the minimum potency, or percentage of active ingredients, acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that fall below the minimum acceptable potency. The system does not allow you to sell items that fall below the minimum acceptable potency.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p> <p>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%.</p>

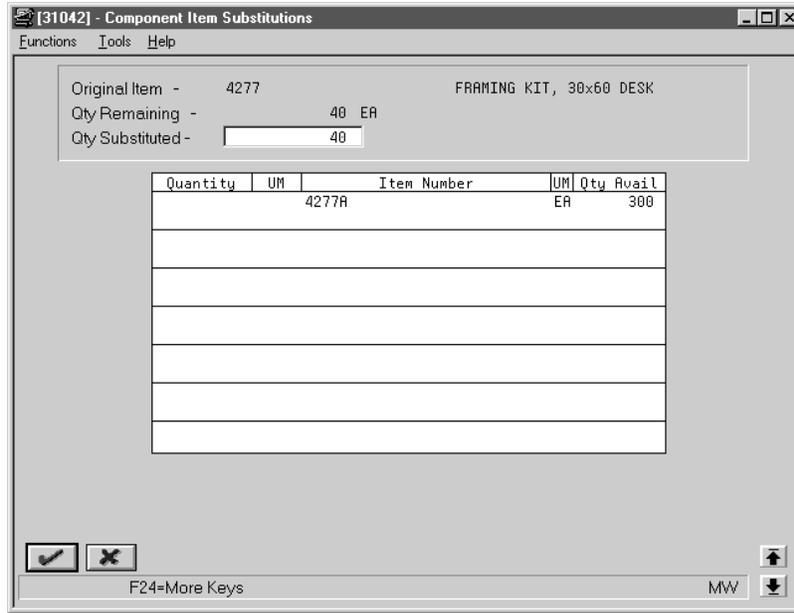
Field	Explanation
From Grade	<p>A code (system 40, type LG) that indicates the minimum grade acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that have a grade below the minimum grade acceptable. The system does not allow you to sell items that have a grade below the minimum acceptable level.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p> <p>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.</p>
Operation Scrap Percent	<p>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 (P3002) when you run the Planned Yield Update program (P3093). 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.</p>

► To enter substitutions

You can specify substitutions for the component items. To do this, enter the substitute quantities in the Component Item Substitutions form. This form does not display any information if there is no quantity available.

On Enter/Change Order

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



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
Quantity	The number of units affected by this transaction.

Field	Explanation
Unit of Measure	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 Available	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.

Quantity	UM	Item	UM	On Hand	Available
40	ER	4277	ER	200	190
		4277	ER	200	200

Enter=Select F3=Exit w/o Selection F24=More Keys

3. On Substitute Availability, review the following information:
 - Quantity
 - Item
 - Quantity on Hand
 - 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.

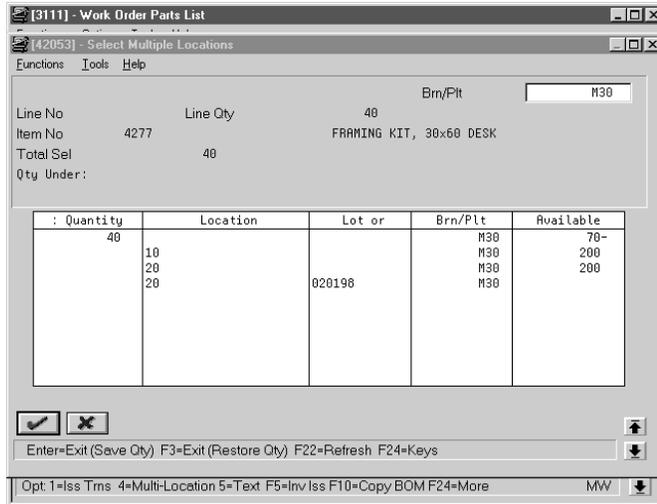
This quantity is calculated using the substitute item setup values (fixed or variable, partial, and so on).

► To enter multiple locations

You can specify more than one commitment location for the item.

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 (P410012).
Available Quantity	The quantity available can be on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up on Branch/Plant Constants form.

Attaching the Routing Instructions Interactively

After you have entered 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
- In batch mode, using the Order Processing program

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.

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

Attaching the routing instructions manually

You use the manual method if you need to change a step in the operation that the Order Processing program will assign, or you can change this after interactive or batch attachment. See also *Processing Work Orders*.

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.

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 has not been 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 must run the Order Processing batch program 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.

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.

Using the generic text window

Access the Work Order Routing Operation Master Text 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 you make to the text will not impact the text that was originally attached to the item's routing.

You can also access the User Information and Text Model Selection windows to view user and date updates, as well as model selections.

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 using Warehouse Management.

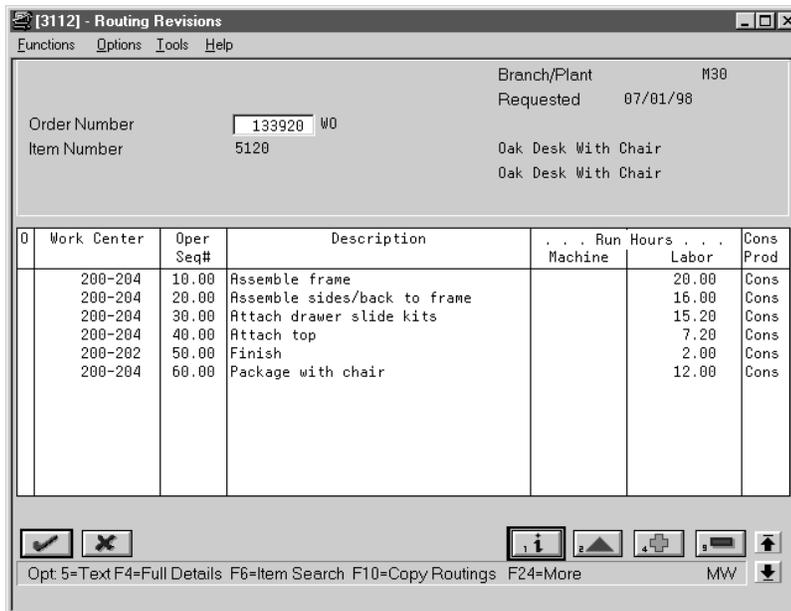
See Also

- *Processing Work Orders (P31410)* for instructions on running the Order Processing batch program

▶ To attach the routing instructions interactively

On Enter/Change Order

1. Choose Routing Revisions.



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 fold area.

The screenshot shows a software window titled "3112 - Routing Revisions". At the top, there are menu options: "Functions", "Options", "Tools", and "Help". The window is divided into several sections:

- Header Information:**
 - Branch/Plant: M30
 - Requested: 07/01/98
 - Order Number: 133920 WO
 - Item Number: 5120
 - Description: Oak Desk With Chair
- Routing Table:**

Q	Work Center	Oper Seq#	Description	Run Hours		Cons Prod
				Machine	Labor	
	200-204	10.00	Assemble frame		20.00	Cons
			Type Oper	% of Overlap	Setup Hours	2.50
			Requested 06/23/98	Pay Point 0	Equipment	Queue Hours 0.50
			Rel P0	Crew 1.0	Instruct No	Move Hours 2.50
			Yield % 0.00	Cum % 100.00	Time Basis 1	
	200-204	20.00	Assemble sides/back to frame		16.00	Cons
			Type Oper	% of Overlap	Setup Hours	
			Requested 06/24/98	Pay Point B	Equipment	Queue Hours
			Rel P0	Crew 1.0	Instruct No	Move Hours
			Yield % 0.00	Cum % 100.00	Time Basis 1	
- Footer:**
 - Opt 5=Text F4=Full Details F6=Item Search F10=Copy Routings F24=More MW

7. Review the following fields:
 - Equipment
 - Instruct Number
 - Start
 - Requested
 - Type Operation
 - Pay Point
 - Crew
 - Setup Hours

- Queue Hours
- Move Hours

Field	Explanation
Description	A second, 30-character description, remark, or explanation.
Machine Run Hours	This is the standard machine hours expected to be incurred in the normal production of this item.
Labor Hours	<p>This is the standard hours of labor expected in the normal production of this item.</p> <p>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.</p> <p>..... <i>Form-specific information</i></p> <p>For engineering change orders:</p> <p>This is the standard hours of labor expected to complete this step for the ECO.</p>
Consumed/Produced/Both	<p>This flag indicates whether consumed resources, produced resources, or both are defined for the operation. Possible values are:</p> <ul style="list-style-type: none"> 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. <p>NOTE: When using Process Manufacturing, if this field is highlighted, an intermediate exists for the operation.</p>
Yield Percent	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>This field is not input-capable. The system uses the value in the Routing table.</p>

Field	Explanation
Type Operation	<p>A user defined code (system 30, type OT) that indicates the type of operation. For example:</p> <ul style="list-style-type: none"> A Alternate routing TT Travel time IT Idle time T Text (Enter text at Description)
Pay Point Code	<p>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:</p> <ul style="list-style-type: none"> 0 Not a backflush work center B Backflush material and labor M Backflush material only L Backflush labor only P Preflush material only <p>If you leave this field blank, the system uses the value in the Enter/Change Routing table.</p>
Crew Size	<p>The number of people who work in the specified work center or routing operation.</p> <p>The system multiplies the Run Labor value in the Routing Master table (F3003):</p> <ul style="list-style-type: none"> • By crew size during costing to generate total labor dollars • During Process Work Orders and Order Maintenance to generate total labor hours <p>If the Prime Load Code is L or B, the system uses the total labor hours for back scheduling. If the Prime Load Code is C or M, the system uses the total machine hours – without modification by crew size – for back scheduling.</p>
Percent of Overlap	<p>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.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. Overlapping has no effect on move and queue calculations. 2. The percent entered must be less than or equal to 100%. <p>Enter percents as whole numbers: 5% as 5.00</p> <p>..... <i>Form-specific information</i></p> <p>If you leave this field blank, the system uses the value in the Routing table.</p>

Field	Explanation
Equipment	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 Code	<p>A user defined code (system 30, type TB) that identifies the time basis or rate to be used for machine or labor hours entered for any routing step. You can set rates per unit, per 10, per 1000, and so on.</p> <p>The system uses the values in the Description-2 field on the User Defined Codes form for costing and scheduling calculations. The Description field is a description of what the code represents, but is not used in calculations.</p>
Setup Hours	The standard setup hours you expect to incur in the normal completion of this item.
Queue Hours	<p>The time (in hours) that an order is expected to be in the queue while waiting to be processed through the work center.</p> <p>The system stores this value in the Item Branch table (F4102). This value is calculated by the Leadtime Rollup program (P30822) or you can enter it manually. When you run the Leadtime Rollup program, the system overrides manual entries with calculated values.</p>
Move Hours	<p>The planned time in hours that is required to move the order from this operation to the next operation in the same work center.</p> <p>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.</p>

Assigning Serial Numbers

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 LSNs. The system does not validate any serial number 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 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.

What You Should Know About

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

Before You Begin

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

▶ **To assign serial numbers**

On Enter/Change Order

1. Complete the following field to locate the work order you want to assign serial numbers to:
 - Order Number
2. Choose Assign Serial Numbers.

[3105] - Assign Work Order LSN's

Functions Options Tools Help

Branch M30
Requested 01/07/98

Order Number 129541 W0
Item Number 2434 CRT Chassis Subassembly
Qty Ordered 10 EA
Qty Completed 20
Qty Scrapped

LSN	Memo Lot 1	Memo Lot 2	Date Complete
9602290000	LY-34		01/07/98
9602290001	LY-34		01/07/98
9602290002	LY-34		01/07/98
9602290003	LY-34		01/07/98
9602290004	LY-34		01/07/98
9602290005	LY-34		01/07/98
9602290006	LY-34		01/07/98
9602290007	LY-34		01/07/98
9602290008	LY-34		01/07/98
9602290009	LY-34		01/07/98

Opt 8=LSN Master 9=Delete F5=LSN Generation F3=Exit F24=More Keys MW

3. On Assign Work Order LSN's, choose LSN Generation to assign serial numbers to your work order.
4. Relocate your order number to view the serial numbers that were assigned.

Process Work Orders

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 back scheduling
- 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

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.

Complete the following tasks:

- Run order processing
- Print a summary of work orders (optional)

Before You Begin

- Determine which processing options to use before running this program
- Set up valid work center locations. See *Setting Up Work Centers*.
- Use the processing options to initiate Warehouse Management system integration. See *Advanced Warehouse Management Guide* for information about setting up Warehouse Management.

What You Should Know About

Processing assembly inclusion rules

Use Order Processing to process assembly inclusion rules 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.

Consolidating a parts list

Use a processing option to print a consolidated parts list which will provide 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.

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.

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 have been 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.

Warehouse Management interface

If you are using Warehouse Management and processing 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.

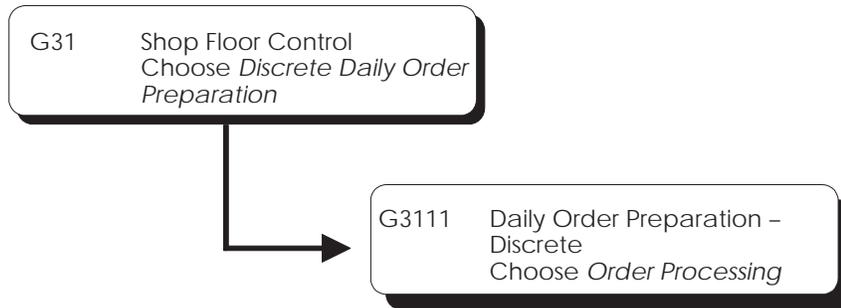
After the system creates the pick request, the Warehouse Management system processes instructions and creates suggestions for you to confirm. Then, the system updates the parts list and increases the quantity on hand for the To location and decreases the quantity on hand for the From location.

You can specify in the processing options if you want a consolidated picklist for multiple work orders to be printed, as well as the individual picklists.

See Also

- *Appendix C – Leadtimes* for an explanation of the calculation of fixed and variable leadtimes

Run 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 at the beginning of the accounting period.



When you use Order Processing to generate parts lists or routings for your work orders, the system replaces any parts lists or routings 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

Processing Options for Order Processing

GENERATION INFORMATION:

1. 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.
2. Enter a '1' to use the W.O. Date for Effectivity checking. (Default is the W.O. Start Date.) _____

UPDATE INFORMATION:

3. Enter the new Status Code for the Work Order Header. If left blank, status will not be changed. _____

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 DREAM Writer Version of the Parts List to print. If left blank, XJDE0001 is used. (See Form ID P31415.) _____
 9. Enter a '1' to print a consolidated Parts List. _____
- ROUTING INSTRUCTIONS PRINT INFO:
10. Enter a '1' to print Routing _____
 11. Enter a '1' to print Routing on a new page. _____
 12. Enter the DREAM Writer Version to be executed for the desired sequencing of the Routing. If left blank, the operation sequence is used. (See Form ID P314151.) _____
- BACKSCHEDULING INFORMATION:
13. Enter the Unit of Measure for backscheduling. _____
- SHOP PACKET SUMMARY INFORMATION:
14. Enter a '1' to print the Shop Packet Summary. _____
- SHORTAGE REPORT INFORMATION:
15. Enter the DREAM Writer Version of the Shortage Report to execute. If left blank, no shortage report will be printed. (See Form ID P31418.) _____
- BAR CODE INFORMATION:
16. Enter the DREAM Writer Version to be executed for the desired print overrides for Bar Coding. (See Form ID P31413.) _____
- INVENTORY ISSUE INFORMATION:
17. Enter the DREAM Writer Version of Batch Inventory Issues to execute. If left blank, the Inventory Issues program will not be called. (See Form ID P31420) _____
- PURCHASE ORDER INFORMATION:
(Used for Sub-Contract Routings)
18. Enter the Document Type _____
 19. Enter the Line Type _____
 20. Enter the Beginning Status _____
 21. Enter a '1' to default the tax area from the 'Ship-To' address book number. If left blank, the tax area will default from the Supplier address book number. _____
- SALES ORDER INFORMATION:
22. 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.
23. 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, status will not be changed. _____
24. Enter a '1' to print Sales Order Text lines. _____
- CONFIGURED ITEM COSTS:
25. Enter one of the following options for calculating the standard cost for configured items in the WO Variance file (F3102). _____
- 1 - Always calculate the standard cost.
 - 2 - Only calculate the standard cost if it has not already been done (no variance records exist.)
- If left blank, standard cost will not be calculated.
- BOM SUBSTITUTES:
26. Enter '1' to allow the use of Bill of Material substitutes in case of a shortage. _____
- PURCHASING JOURNAL ENTRIES:
27. Enter a '1' to load the Work Order Number into the Subledger field of the purchasing J/E's. _____
- BLANKET/QUOTE PROCESSING:
28. Enter a '1' for automatic blanket order release processing. _____
- BUILD AGAINST PRIOR REVISIONS:
29. 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:
30. 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.
31. If processing pick requests using the subsystem, enter the DREAM Writer version to use. If left blank, XJDE0002 will be used. (see Form ID P46171) _____
32. Enter the default staging location _____

for moving goods out of the warehouse. The parts picked from the warehouse are staged at this location prior to use within manufacturing. (F1=Location Window)

33. 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. This option only applies to parts without work center locations. _____

QUALITY MANAGEMENT OPTIONS:

34. Enter a '1' to attach the Work Order/Routing tests. _____

GENERIC TEXT PRINT OPTIONS:

35. Enter a '1' to print component generic text on the Parts List. _____

36. Enter a '1' to print operation generic text on the Routing. _____

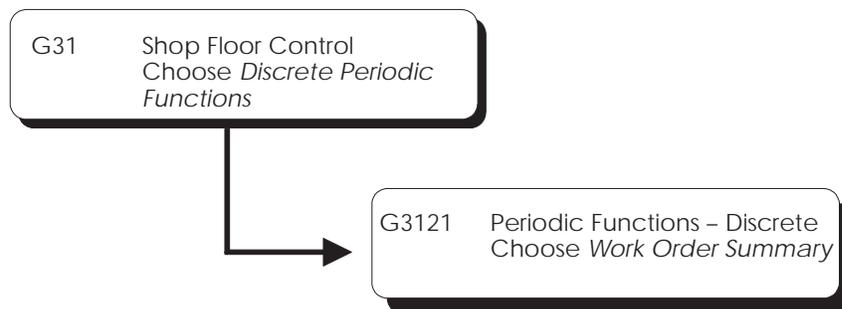
- The system did not create a pick request because "Warehouse Control" was not set to Y

What You Should Know About Processing Options

Ingredients list print information (5, 6, 7, and 8)

If you set the Warehouse Management picking interface on, the Work Order Print Parts List program prints "In Warehouse" in the location field for all parts with the proper material status code.

Printing a Summary of Work Orders



The Work Order Summary report lists selected work orders in the Work Order Master table (F4801). You 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.

Shop Floor Control Discrete Manufacturing

31400		J.D. Edwards & Company				Page	-	2		
		Work Order Summary				Date	-	3/17/98		
W.O. Number	Ty	Description	T P St	Planner	Item Number	Quantity Ordered	Quantity Completed	UM Started	Dates Due	Last Upd
400	WO	Rework Electrical	R H 10							11/19/93
764	WO	Electrical	D H 10	55222						07/01/93
772	WO	Electrical Phase II	D H 10	55222						07/01/93
781	WO	Electrical Phase III	D H 10	55222						07/01/93
799	WO	Other Electrical	D H 10	55222						07/01/93
801	WO	Electrical	D H 10	55222						07/01/93
810	WO	Hydraulic	D H 10	55222						07/01/93
828	WO	Structural	D H 10	55222						06/30/93
941	WO	Quote for Engineering Ph	Q 10	7020						07/01/93
959	WO	Quote for Engineering Ph	Q 10	7020						07/01/93
967	WO	Quote for Engineering Ph	Q 10	7020						07/01/93
975	WO	Text Template for Quotes	G 10							07/01/93
983	WO	Text Template for Quote	G 10							07/01/93
1901	WO	Replacement of Air Handl	1 1 MH			1				05/26/94
1919	WO	Convert Off. to Conferen		6001		1				08/07/92
2065	WO	OAK SHELF UNIT	97	9200				11/26/91		06/22/93
2137	WO	Replace locks								11/19/93
2305	WO	Safety Inspection	M H	7701		1				05/25/94
2318	WO	Oil Change	M 2 IA	7701		1				02/26/95
2327	WO	Rotate Tires	M M			1				05/25/94
2381	WO	Stain, assemble material								11/12/93
2399	WO	Install shelves: wall, f								09/28/93
2401	WO	Cabinet trimwork, cleanu								11/12/93
2468	WO	Install bookcases.								11/12/93
2487	WO	Replace Pump Motor	1 1 MA	55222		1		04/01/98		05/28/94
2604	WO	Purchase of Software								10/08/93
2605	WO	Purchase of Software	IA							10/08/93
2612	WO	Software implementation								10/08/93
2621	WO	Safety Inspection	6 3 ML	7701		1		01/01/98		05/28/94
2647	WO	Safety Inspection	6 3 ML	7701		1		01/01/98		05/26/94
2663	WO	Safety Inspection	6 1 MA	7701		1		01/15/98		05/25/94
3084	WO	Safety Inspection	6 3 MA	7701		1		01/09/98		05/25/94
3228	WO	Safety Inspection	6 3 50	7701		1		01/09/98		03/03/95
3236	WO	Safety Inspection	6 3 MA	7701		1		01/09/98		05/25/94



Exercises

See the exercises for this chapter.

Understand Rate Schedules

About Rate Schedules

A rate schedule is a request to produce a certain quantity of items on a specified periodic basis for a given length of time. Rate schedules eliminate the need to create multiple work orders for items that are produced monthly, weekly, or daily in regular quantities. They are generally used in repetitive manufacturing environments. In J.D. Edwards systems, you can use rate schedules exclusively or in conjunction with work orders.

[3104] - Enter/Change Rate Schedule

Functions Options Tools Help

Branch/Plant: M30
 Schedule Type: AC
 Item Number: 3390 LEG OAK, 1.5x1.5x30
 W/Center or Line:
 Effective From: to

0	Scheduled Qty	UM	P	Eff From	Eff Thru	W/C or Line	Item Number
	2546	EA	2	01/05/96	09/23/96	200-100	3390
	2596	EA	2	01/07/97	12/22/97	200-100	3390
	800	EA	2	01/12/98	01/30/98	200-100	3390



[3114] - Rate Schedule Workbench

Functions Options Tools Help

Branch/Plant: M30
 Schedule Type: AC
 Item Number: 3390 LEG OAK, 1.5x1.5x30
 W/Center or Line:
 Effective From: to

Item Number	Sched. Qty	UM	. . . Quantities . . .		UM	Date Complete	Seq	0
			Completed	Scrapped				
3390	800	EA			EA	04/29/96		

Why Should You Use Rate Schedules?

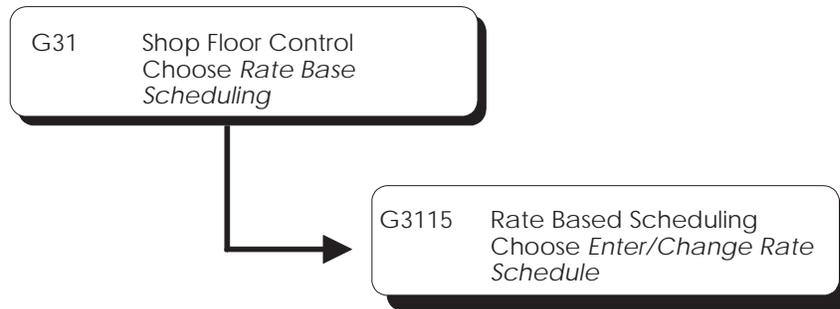
Creating and maintaining rate schedules allows you to:

- Define effective dates
- Enter quantity rates as monthly, weekly, or daily
- Define the day on which scheduled loads should occur
- Use different schedule types to create multiple sets of records to use for planning or more detailed tracking

The following table is an example of data used for a rate schedule.

Candy Manufacturer				
Work Center/Line Cell				
Schedule Quantity	10,000/week or 2,000/day			
Schedule Type	4 flavors AC			
Schedule Period	January 1 January 31			
Schedule Priority (sequence)				
<u>Spread</u>	<u>Lemon</u>	<u>Orange</u>	<u>Cherry</u>	<u>Grape</u>
Mon (00)	500	500	500	500
Tue (00)	500	500	500	500
Wed(00)	1000	1000		
Thu (00)			1000	1000
Jan 31(31)	500	500	500	500

Create Rate Schedules



Creating Rate Schedules

To create a rate schedule, you specify engineering information, such as schedule types and effective dates, and production information, such as the items and quantities on which the rate is based.

You can use processing options to define a default schedule type, schedule period, and spread value. You can also choose to display only active schedules. In addition, you can access associated forms, by indicating the version of these forms in the processing options. You can use these forms to view and modify information for routing, work center, MPS/MRP/DRP time series, rate generation, and scheduling.

Before You Begin

- Verify that your work centers and routing instructions are set up

What You Should Know About

Duplicating or overlapping schedules

You cannot enter duplicate or overlapping schedules for an item. The system does not take into account closed rate schedule records.

Changing data

If you change the work center or line cell, the system creates a new schedule. The only data that you can change on this form without creating a new schedule is the quantity, unit of measure, period, spread, and effective dates.

Deleting a rate schedule

You cannot delete a rate schedule. You must close out the schedule.

Bill of material and routing

Items that are included in rate schedules require a bill of material and routing. The system uses routings with a type value of blank. Type value R routings can also be used for alternate or substitute routings because they are not costed in manufacturing accounting. Type value R routings can be used whenever you want to route an item differently than normal, but you do not want to duplicate or affect the costing for the item.

▶ **To create rate schedules**

On Enter/Change Rate Schedule

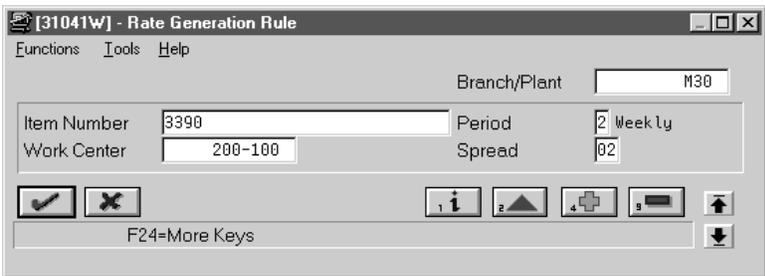
The screenshot shows a software window titled "[3104] - Enter/Change Rate Schedule". It contains several input fields and a data table. The input fields include: Branch/Plant (M30), Schedule Type (AC), Item Number (3390), W/Center or Line, and Effective From (with a "to" field). The data table below has the following structure:

0	Scheduled Qty	UM	P	Eff From	Eff Thru	W/C or Line	Item Number
	2546	EA	2	01/05/96	09/23/96	200-100	3390
	2596	EA	2	01/07/97	12/22/97	200-100	3390
	800	EA	2	01/12/98	01/30/98	200-100	3390

At the bottom of the window, there are navigation icons and a status bar with the text: "Opt 1=W/C Rev 7=C/B Rate Rev F6=BOM Inq F8=Routing F14=Graph F24=More MW".

1. Complete the following fields:
 - Branch/Plant
 - Schedule Type

- Schedule Quantity
 - Item Number
 - Work Center or Line
 - Effective From
 - Effective To
 - Sequence
2. Review the following default information:
 - Unit of Measure
 3. Choose Rate Generation Rule.



4. On Rate Generation Rule, complete the following field:
 - Work Center
5. Complete the following optional fields:
 - Period
 - Spread
6. Review the following default information:
 - Item Number
 - Branch/Plant

Field	Explanation
Schedule Type	A user defined code (system 31, type ST) that identifies the type of schedule, for example, AC for actual schedule and PL for planned schedule.

Field	Explanation								
Effective From	<p>A date that indicates one of the following:</p> <ul style="list-style-type: none"> • When a component part goes into effect on a bill of material • When a routing step goes into effect as a sequence on the routing for an item • When a rate schedule is in effect <p>..... <i>Form-specific information</i></p> <p>A date identifying when the rate schedule is in effect.</p>								
Quantity – Scheduled	<p>The rate quantity, in production units of measure, scheduled to go through a work center.</p>								
Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>If you leave this field blank, the system uses the production unit of measure from the Item Master table.</p>								
Month/Week/Day/Shift	<p>A code that determines the frequency of the schedule. Valid codes are:</p> <table style="margin-left: 20px;"> <tr><td>1</td><td>Monthly</td></tr> <tr><td>2</td><td>Weekly</td></tr> <tr><td>3</td><td>Daily</td></tr> <tr><td>4</td><td>Per Shift</td></tr> </table>	1	Monthly	2	Weekly	3	Daily	4	Per Shift
1	Monthly								
2	Weekly								
3	Daily								
4	Per Shift								
Schedule Spread	<p>A code that determines whether the schedule quantity is to be spread across all workdays or consolidated on a specific day. Valid codes are:</p> <table style="margin-left: 20px;"> <tr><td>00</td><td>Spread across all workdays.</td></tr> <tr><td>01</td><td>Consolidated on the first day of the week (Sunday) if the schedule is weekly. Consolidated on the first day of the month if the schedule is monthly.</td></tr> <tr><td>07</td><td>Consolidated on the seventh day of the week (Saturday) if the schedule is weekly. Consolidated on the seventh day of the month if the schedule is monthly.</td></tr> <tr><td>08-31</td><td>Consolidated on that day of the month. Valid only with monthly schedules.</td></tr> </table>	00	Spread across all workdays.	01	Consolidated on the first day of the week (Sunday) if the schedule is weekly. Consolidated on the first day of the month if the schedule is monthly.	07	Consolidated on the seventh day of the week (Saturday) if the schedule is weekly. Consolidated on the seventh day of the month if the schedule is monthly.	08-31	Consolidated on that day of the month. Valid only with monthly schedules.
00	Spread across all workdays.								
01	Consolidated on the first day of the week (Sunday) if the schedule is weekly. Consolidated on the first day of the month if the schedule is monthly.								
07	Consolidated on the seventh day of the week (Saturday) if the schedule is weekly. Consolidated on the seventh day of the month if the schedule is monthly.								
08-31	Consolidated on that day of the month. Valid only with monthly schedules.								
Schedule Priority	<p>Indicates the priority and sequence of a rate-based schedule in relation to other rate-based schedules through a work center.</p>								

Processing Options for Enter/Change Rate Schedule

SCREEN DEFAULTS:

- 1. Enter a Schedule Type for inquiry. _____
- 2. Enter a '1' to display only active schedules, no closed schedules will be displayed. If left blank, all schedules will be displayed. _____
- 3. Enter the default schedule Period to use. If left blank, data dictionary default will be used. _____
- 4. Enter the default schedule Spread to use. If left blank, data dictionary default will be used. _____

VERSIONS TO EXECUTE:

- Enter the Dream Writer version to use for each program listed. If left blank, version ZJDE0001 will be used.
- 5. Rate Scheduling Review (P31224) _____
 - 6. Rate Scheduling Workbench (P3114) _____
 - 7. MPS/MRP/DRP Time Series (P3413) _____
 - 8. Routing Revisions (P3003) _____

Understand Commitments

About Commitments

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

The J.D. Edwards 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.

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. You use a processing option in Enter/Change Order to specify the commitment option for creating the parts list on-line. The commitment options are:

- Blank = Commit to primary only
- 1 = Commit using allocation rules
- 2 = Commit using allocation rules and preload the selection option to use substitutes

The system can process commitments the same or differently when you use the Order Processing batch program or when you process the orders manually (Enter/Change Order), depending on how you set the processing options for each program. 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 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.

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

Enter/Change Order

Automatically generate:

- Routing instructions when you create the parts list on-line
- Parts list when you create the routing instructions on-line

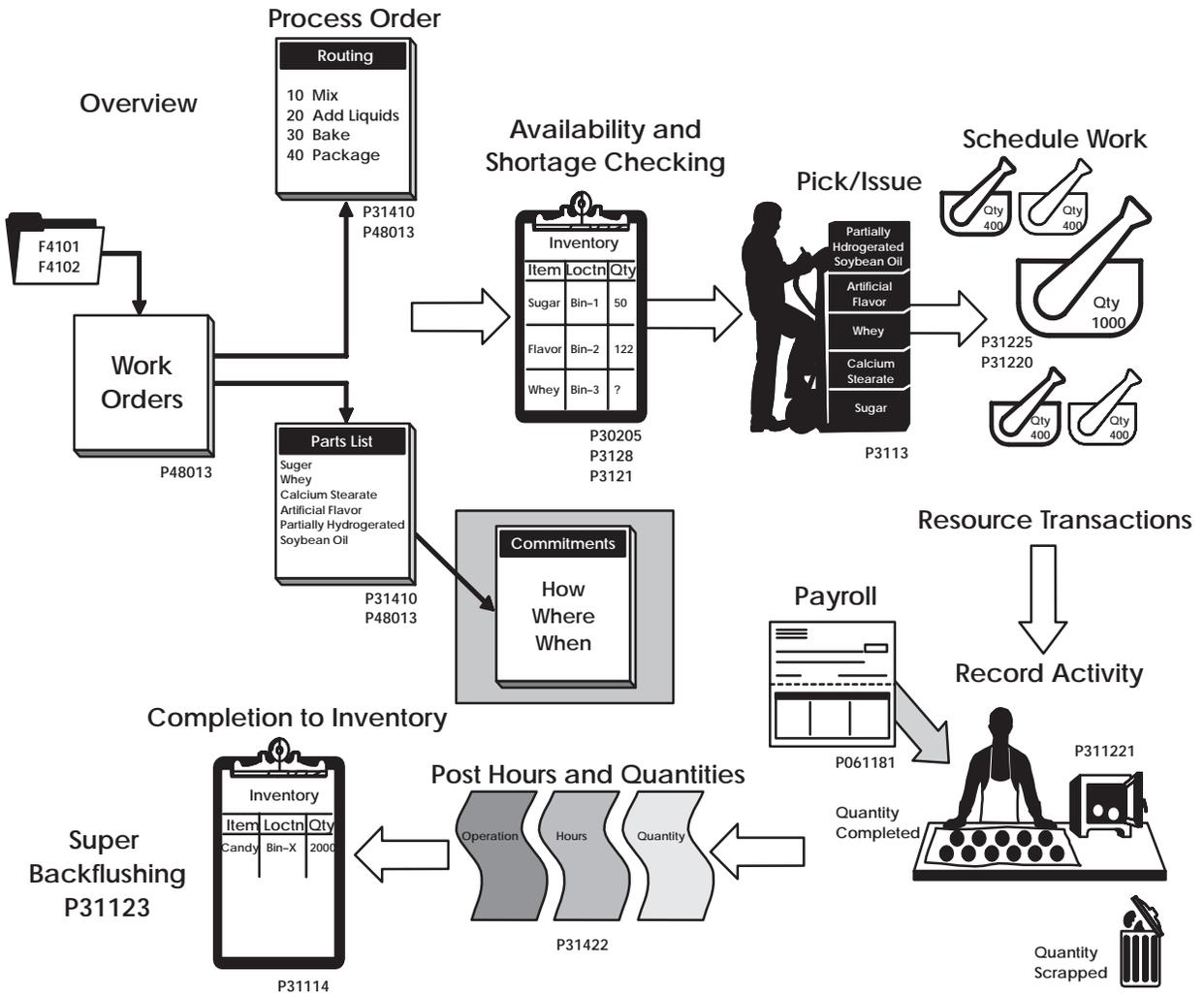
What Is a Soft Commitment?

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 needed for current work requests to available inventory.

What Is a Hard Commitment?

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

Where in the Process Do You Commit Inventory?



Discrete Manufacturing

See Also

- *Understanding Lot Processing*
- *Understanding Grade and Potency*

Work with Commitments

Working with Commitments

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.

Working with commitments includes the following tasks:

- Defining commitment rules
- Defining commitments at a work center location
- Managing commitments for grade and potency controlled items (optional)
- Creating commitments for potent units (optional)
- Reposting work order commitments

What You Should Know About

Activating substitution checking

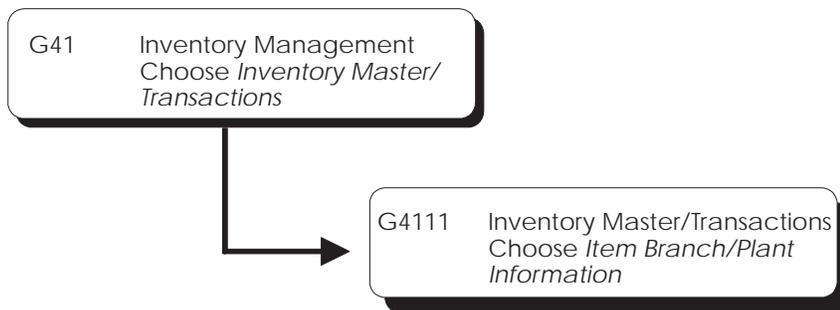
When the system creates commitments, either manually or using the batch program, you can activate a processing option to check if substitutes exist for an item. When you create commitments manually, the item number is highlighted during the attachment process.

Defining the Commitment Rules

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

- Inventory commitment method for the item
- Inventory commitment control and type of commitment for the work order

► **To define the commitment method for the item**



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

On Item Branch/Plant Information

Branch/Plant		M30	
Item Number	333	ORAK SHELF UNIT	
Stocking Type	M	Line Type	<input type="checkbox"/>
G/L Class	IN20		
Item Price Group		Sales Taxable	<input checked="" type="checkbox"/>
Basket Reprice Group		Purchasing Taxable	<input checked="" type="checkbox"/>
Order Reprice Group			
Backorders Allowed	<input checked="" type="checkbox"/>	Serial No. Required	<input type="checkbox"/>
Check Availability Y/N	<input checked="" type="checkbox"/>	Lot Status Code	<input type="checkbox"/>
Shelf Life Days		Lot Process Type	<input type="checkbox"/>
ABC Codes	- - -	Commitment Method	1
Margin Maintenance (%)			
Country of Origin		USA	
Planner Number	9200	Dobson, Jane	
Buyer Number	8200	Wright, Allen	
Supplier			
Print Message	ENG455	Engineering Changes #455	

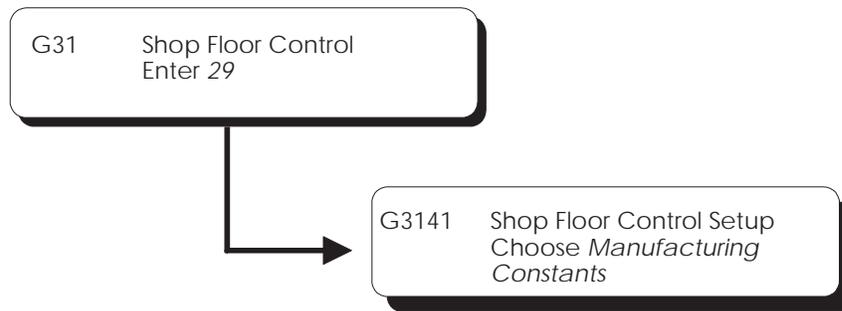
F5=Codes F6=Cost F9=Price F10=Manufacturing F15=Bulk Info F24=Keys MW

Complete the following field:

- Commitment Method

Field	Explanation
Commitment Method	<p>A code that indicates the method the system uses to commit lot items from inventory. Valid codes are:</p> <ol style="list-style-type: none"> <li>1 The normal commitment method for inventory (default). The system commits inventory from the primary location, then from secondary locations. The system uses locations with the most inventory and moves to the location with the least. The system commits backorders to the primary location. <li>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. <li>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**



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

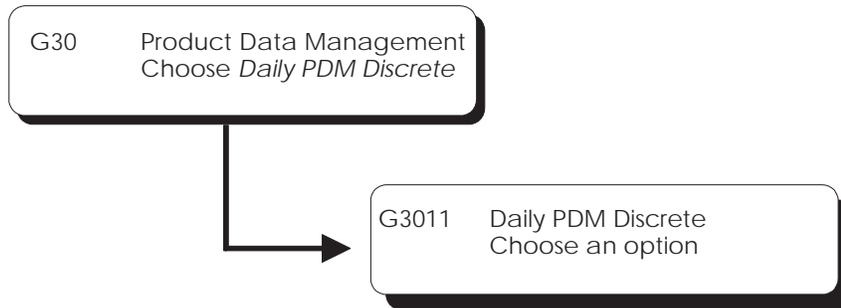
[3009] - Manufacturing Constants	
Branch	M30
Log Bill of Material Changes	N
On-Line BOM Validation (Y/N)	Y
Work Hours Per Day	8.00
Backflush Options	1
Master Routings (Y/N)	N
Commitment Control	3
Hard/Soft Commit	1
Overheads as Percents or Rates	P
Modify cost by Work Center Eff	Y
Include Efficiency in Overhead	Y
Include Var. Labor Overhead in cost	Y
Calculate Var. on Direct Labor	Y
Calculate Var. on Setup Labor	Y
Include Fixed Labor Overhead in cost	Y
Calculate Fixed on Direct Labor	Y
Calculate Fixed on Setup Labor	Y
Include Var. Machine Overhead in cost	Y
Include Fixed Machine Overhead in cost	Y

Complete the following fields:

- Commitment Control
- Hard/Soft Commit

Field	Explanation
Commitment Control	<p>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:</p> <ol style="list-style-type: none"> <li>1 Make commitments to the primary location in the branch/plant where the work order originates. <li>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. <li>3 Same as 2, but the system cannot cross branch boundaries. <p>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.</p>
Hard/Soft Commit	<p>Determines how the Shop Floor Control system commits inventory. Valid codes are:</p> <ol style="list-style-type: none"> <li>1. The system performs a hard commitment at the creation of the parts list. The hard commitment remains in effect until inventory is relieved. <li>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. <li>3. The system performs a soft commitment at creation of the parts list. The soft commitment remains in effect until inventory is relieved. <p>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.</p>

Defining Commitments at a Work Center Location



Defining commitments at a work center consists of:

- Defining the work center in the items routing
- Defining the location at the work center
- 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 work center in the items routing**

On Enter/Change Routing

[3003] - Enter/Change Routing

Functions Options Tools Help

Branch/Plant: M30
 Item Rev:
 Routing Type: M
 Line/Cell: *

Item Number: 333 ORK SHELF UNIT
 Batch Quantity: EA
 As of Date: * Drawing No: 12287
 Skip to Operation:

0	Work Center	Oper Seq#	Description	Run Hours Mach	Run Hours Labor	Setup Hours	Cons Prod
	200-203	10.00	Assemble shelf unit		4.60	0.50	Cons
	200-204	20.00	Check glue joints				
	200-4344	25.00	Outside treatment				Cons
	200-204	30.00	Finish sand/spray		1.50	0.25	Cons
	200-204	35.00	NOTE: TACK RAG B4 SPRAYING				
	200-204	40.00	Final inspection		1.00	0.30	Cons

Opt: 1=Components 3=Intermediates 8=Text F6=Item Search F24=More Keys MW

Review the following field:

- Work Center

What You Should Know About

Using the generic text window

Access the Routing Operation Master Text 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 Information and Text Model Selection windows to view user and date updates, as well as model selections.

► To define the location at the work center

On Enter/Change Work Center

Complete the following fields:

- Location
- Branch

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

On Enter/Change Bill

The screenshot shows the 'Enter/Change Bill' window for item 333, 'OAK SHELF UNIT'. The window includes fields for Branch/Plant (M30), Bill Type (M), and Item Rev. Level. Below these are fields for Parent Item (333), Batch Quantity, As of Date, Drawing # (12287), and Skip to Comp Line No. A table lists the components of the bill of materials:

Component Item	Description	Quantity	Per	UM	V	I
212	OAK SHELF SIDES	2		EA	V	I
121	OAK SHELF TOP/BOTTOM	2		EA	V	I
424	OAK SHELVES	4		EA	V	I
444	OAK SHELF CABINET INSERT ASS	1		EA	V	I
123	HARDWARE KIT	1		EA	V	I
122	BULK HARDWARE	12		EA	V	I

At the bottom, there are navigation icons and a legend: Opt. 1=Item Master 2=Next Lvl 6=Subs 7=Text F8=Inquiry F12=Prv Lvl F24=More MW

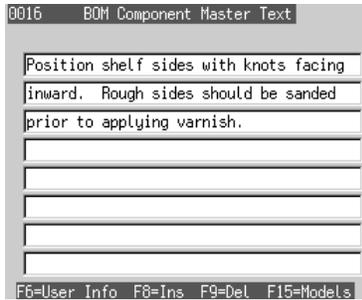
- Complete the following fields:
 - Branch/Plant
 - Parent Item
- Access the fold area.

This screenshot shows the same window as above, but with the component line 212 expanded to show detailed information:

212	OAK SHELF SIDES	2	EA	V	I
Effective From	10/07/91	Feature Planned %	100.00	Stocking Type	M
Effective Thru	12/31/10	Feature Cost %	100.00	Line Type	S
Leadtime Offset		Unit Price		Revision Level	
Comp. Br/Pl	M30	Unit Cost	0.0000	From Grade	
Operation Sequence	10.00	Standard/Optional/Feature		S Thru Grade	
Percent of Scrap	20.00	Required (Y/N)		N From Potency	
Operation Scrap %	0.00	Default Component		Thru Potency	
Component Line Nr	1.0	Remark			
Bubble Sequence	10	Drawing Number	12287		
Partials Allowed (Y/N)	Y				

The legend at the bottom remains the same: Opt. 1=Item Master 2=Next Lvl 6=Subs 7=Text F8=Inquiry F12=Prv Lvl F24=More MW

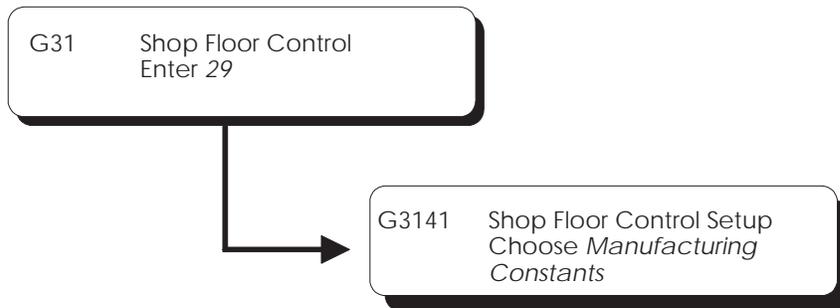
3. Complete the following field:
 - Operation Sequence
4. Choose BOM Component Master Text.



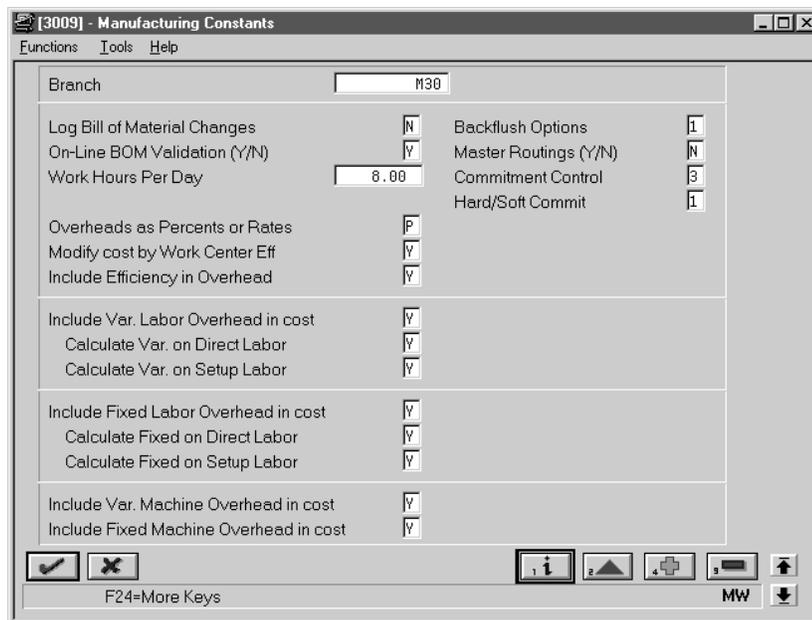
5. Create a separate generic text entry for a component item of the parent item.

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.

► **To define how the system commits inventory during backflush**



On Manufacturing Constants

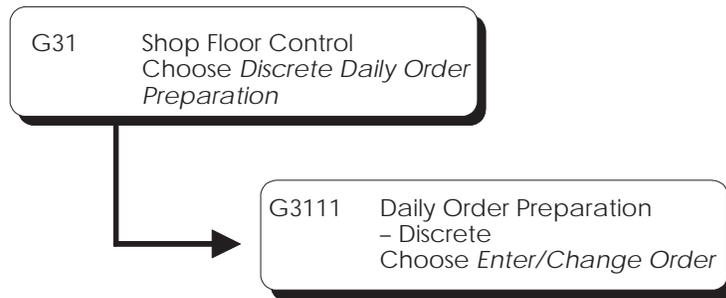


Complete the following field:

- Backflush Options

Field	Explanation
Backflush Options	<p>Determines how the system performs commitment and release of inventory during the backflush process. Valid codes are:</p> <ol style="list-style-type: none"> 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. <p>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.</p>

Managing Commitments for Grade and Potency Controlled Items



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:

	<u>Location</u>	<u>Exp. Date</u>	<u>Grade</u>	<u>On Hand</u>	<u>Commit</u>
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

- *Understanding Grade and Potency*

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.

	<u>Location</u>	<u>Potency</u>	<u>On Hand</u>	<u>Potent Units</u>	<u>Commit at standard & 70%</u>
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 ($30 \text{ GP} / .7 = 43 \text{ GA}$).

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.

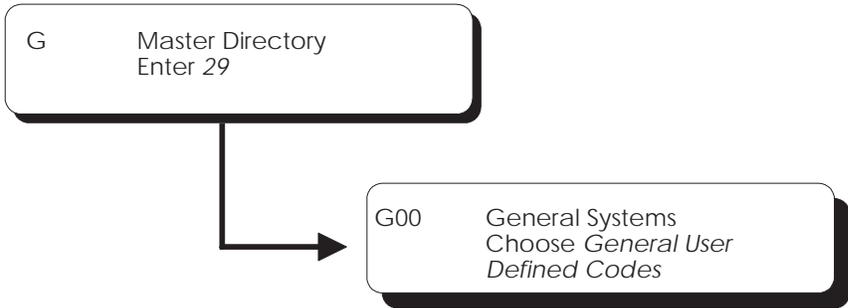


The system issues a warning message when it changes the standard value for grade or potency on the branch/plant record. Commitments can be brought out of balance if the primary unit of measure for an item is non-potent and commitments exist from a sales order or work order in a potent unit of measure.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

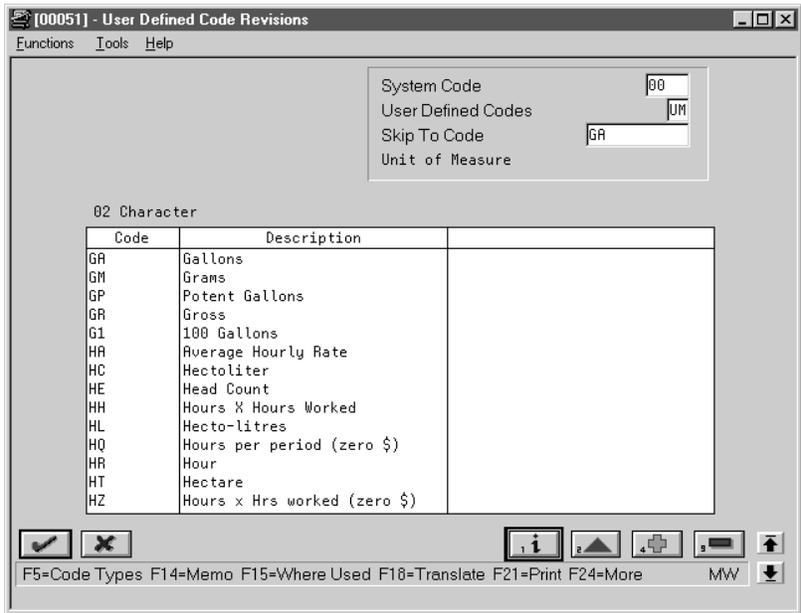
Creating commitments for potent units consists of:

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

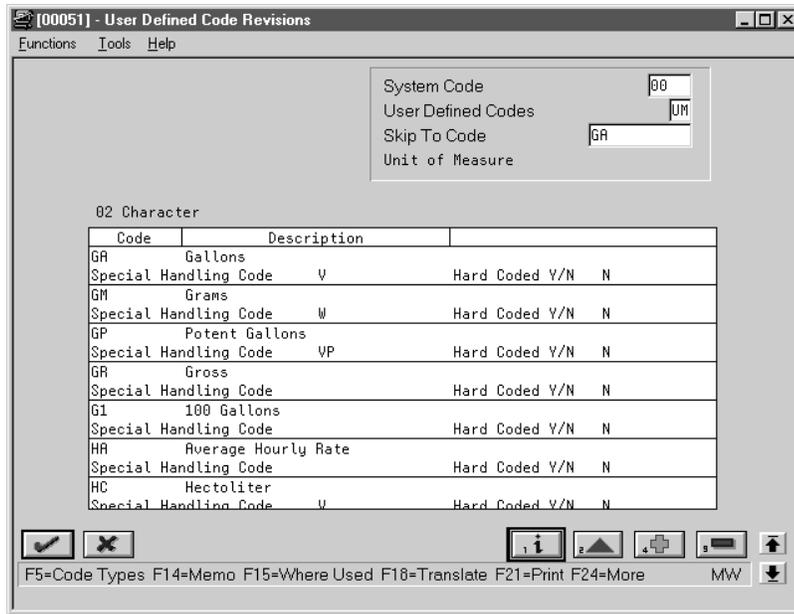
► To define potent units



On General User Defined Codes



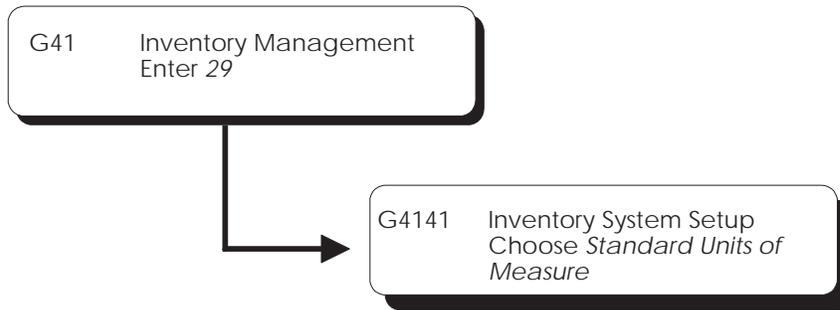
1. Access the fold area.



2. Complete the following field:
 - Special Handling Code

Field	Explanation
Special Handling Code	<p>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.</p> <p>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.</p> <p>..... <i>Form-specific information</i></p> <p>If a "P" is in the second position, the system identifies that unit of measure as a potent unit of measure.</p>

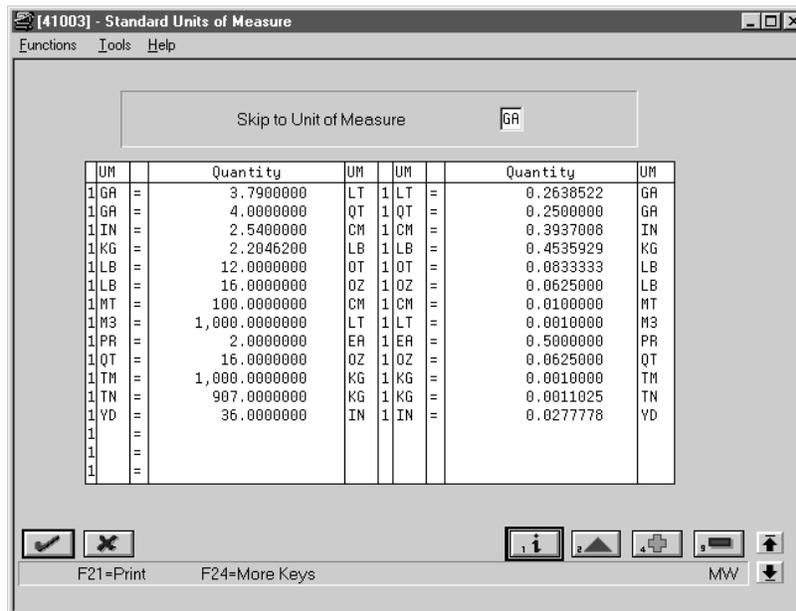
► **To set up a unit of measure conversion**



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

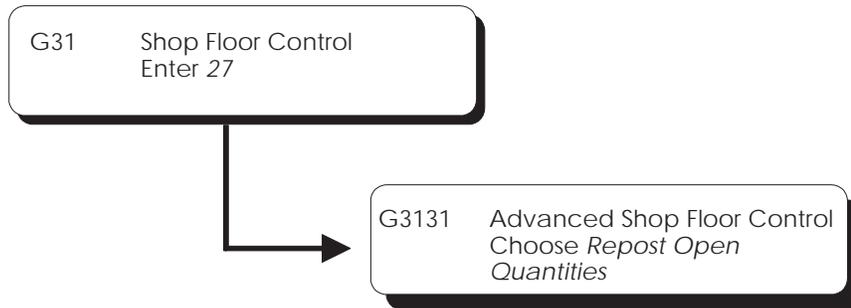
On Standard Units of Measure



Complete the following fields:

- Unit of Measure
- Quantity
- Unit of Measure

Reposting Work Order Commitments



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 *Defining Commitment Rules*.

What You Should Know About

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 reposting open and on-order quantities on your work orders, the system:

- Clears (sets to zero) all values for the Quantity Committed to WO and Quantity on WO fields in the Item Branch table (F4102).
- Reposts the value in the Quantity on WO field 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 value for components in the Quantity Committed to WO field 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 for Repost Open Quantities**WORK ORDER STATUS INFORMATION:**

1. Enter the work order status for update. Any order with a status less than the status input, will be reposted. If left blank, the status will default to '99'.

Test Yourself: Committing Inventory

1. What is the difference between a hard and soft commitment?

2. List the three fields that control how commitments are performed for a branch.

3. Can you commit inventory to a work center? _____

4. What is the Repost Open Quantities program?

Mark the following statements true or false. For those statements that are false, change them to make them true.

5. At the branch level, you can commit inventory by lot number or lot expiration date. True / False
6. Hard commitments remain in effect until inventory is relieved. True / False
7. Using the normal inventory commitment method, inventory is committed from the primary location only. True / False
8. The Commitment Control field is only active when you are creating hard commitments. True / False
9. You can change commitments for a work order. True / False
10. When the Commitment Method field is set to 2 or 3, the Hard/Soft Commit field must be set to either 1 or 2. True / False

The answers to this Test Yourself are in *Appendix B*.

Understand Grade and Potency

About 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 J.D. Edwards 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-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.

Setting Up Grade and Potency Control

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 table 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 fold 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.

Defining 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. Enter one of the following values in the Lot Process Type field:

- 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.

The screenshot shows a software window titled "[41026] - Item Branch/Plant Information". The window contains a form with the following fields and values:

- Branch/Plant: M30
- Item Number: 2434 CRT Chassis Subassembly
- Stocking Type: M
- G/L Class: IN20
- Line Type:
- Item Price Group:
- Basket Reprice Group:
- Order Reprice Group:
- Sales Taxable: Y
- Purchasing Taxable: Y
- Backorders Allowed: Y
- Check Availability Y/N: Y
- Shelf Life Days: 99999
- ABC Codes: - -
- Margin Maintenance (%):
- Serial No. Required: 4
- Lot Status Code:
- Lot Process Type: 5
- Commitment Method: 2
- Country of Origin: USA
- Planner Number: 9100
- Buyer Number: 8100
- Supplier:
- Print Message:

At the bottom of the window, there are several icons and a legend: F5=Codes, F6=Cost, F9=Price, F10=Manufacturing, F15=Bulk Info, F24=Keys, MW, and a scroll arrow.

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/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.

Understand Lot Processing

About Lot Processing

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 so you can sell the items with the earliest receipt dates 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, yet allowing that lot to have quantities 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 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, J.D. Edwards 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).

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).

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 program for system 41, type 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.

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).

Working with lots involves the following tasks:

- Entering lot information
- Working with lot availability
- Working with lot transactions
- Changing lot classifications

See Also

- *Defining System Constants (P4009W)* in the *Inventory Management Guide* for information about allowing different types of items in the same lot

Enter Lot Information

Entering Lot Information

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

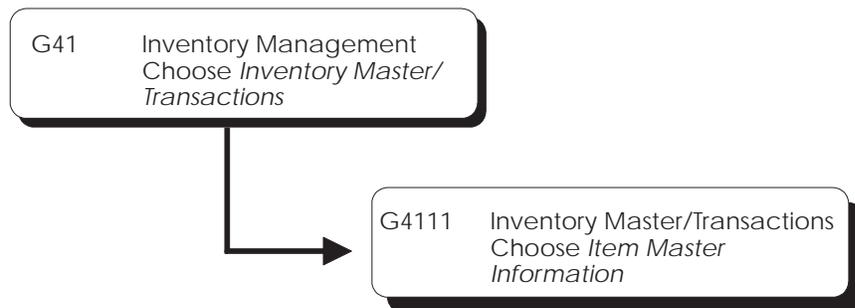
- Lot information for items
- Lot information for lots

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 contained in the lot, the expiration date for the lot, and so on.

To work with lots, you must:

- Enter lot information for items
- Enter information for lots

Entering Lot Information for Items



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

You can also specify:

- The method by which lot numbers are assigned to the item
- The number of days that the item can remain in inventory before expiring

You can further break down lots by attaching serial numbers to items within the lots.

► To enter lot information for items

On Item Master Information

The screenshot shows the 'Item Master Information' dialog box for item 6605. The window title is '[4101] - Item Master Information'. The 'Item Number - Short' field contains '6605'. The dialog is divided into two columns of fields. The left column includes: Product No (2434), Catalog No (CHASSIS), Stocking Type (M), G/L Class (IN20), Unit of Measure (EA), Item Price Group, Basket Reprice Group, Order Reprice Group, Dispatch Group, Backorders Allowed (Y), Check Availability Y/N (Y), Shelf Life Days (99999), ABC Codes, Planner Number (9100), Buyer Number (8100), and Print Message. The right column includes: Desc (CRT Chassis Subassembly), Srch (chassis,crt), Line Type (S), Bulk/Packed Flag (P), Inventory Cost Level (3), Sales Price Level (3), Purchase Price Level (3), Kit Pricing Method, Serial No. Required (N), Lot Status Code, Lot Process Type, Commitment Method (1), Item Flash Message, and Std UOM Conversion. At the bottom, there are several icons and a legend: F5=Codes, F8=Measures, F10=Manufacturing, F13=Branch/Plant, F24=More Keys, and MW.

Complete the following fields:

- Lot Status Code
- Lot Process Type
- Commitment Method
- Shelf Life Days
- Serial No. Required

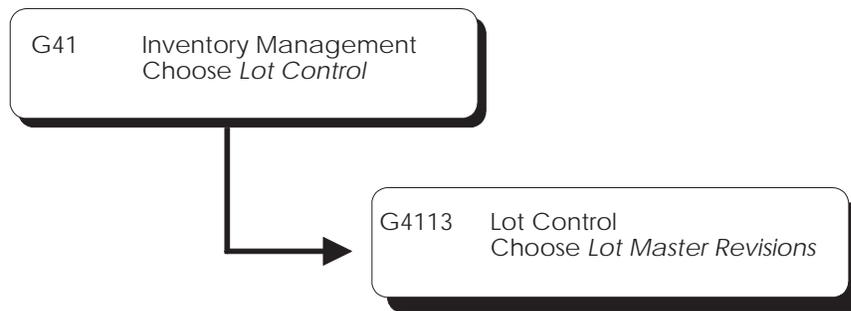
Field	Explanation
Lot Status Code	<p>Indicates the status of the lot, such as if the lot is approved and available for usage (blank lot status) or is held. The system stores the lot status at both the lot master level (F4108) and the item location level (F41021). This means that a lot can be available 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.</p> <p>..... <i>Form-specific information</i></p> <p>The default value for the lots to which you assign this item.</p>

Field	Explanation
Lot Process Type	<p>A code that indicates whether lot or serial number is assigned. Lot and serial number processes use the Lot Master table (F4108).</p>
	<p>Valid codes are:</p>
	<p>0 Lot assignment is optional. You can manually assign numbers. Quantity can be greater than one. (Default)</p>
	<p>1 Lot assignment is required. The system assigns numbers using the system date in YYMMDD format. Quantity can be greater than one.</p>
	<p>2 Lot assignment is required. The system assigns numbers in ascending order using Next Numbers. Quantity can be greater than one.</p>
	<p>3 Lot assignment is required. You must manually assign numbers. Quantity can be greater than one.</p>
	<p>4 Serial number assignment is optional except during shipment confirmation. Quantity must not exceed one.</p>
	<p>5 Serial number assignment is required. The system assigns numbers using the system date in YYMMDD format. Quantity must not exceed one.</p>
	<p>6 Serial number assignment is required. The system assigns numbers in ascending order using Next Numbers. Quantity must not exceed one.</p>
	<p>7 Serial number assignment is required. You must manually assign numbers. Quantity must not exceed one.</p>
	<p>..... <i>Form-specific information</i></p>
	<p>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.</p>
	<p>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.</p>

Field	Explanation
Commitment Method	<p>A code that indicates the method the system uses to commit lot items from inventory. Valid codes are:</p> <ol style="list-style-type: none"><li>1 The normal commitment method for inventory (default). The system commits inventory from the primary location, then from secondary locations. The system uses locations with the most inventory and moves to the location with the least. The system commits backorders to the primary location.<li>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.<li>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	<p>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.</p>

Field	Explanation
Serial Number Required	<p>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.</p> <p>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.</p> <p>For basic serial number processing, valid values are:</p> <ul style="list-style-type: none"><li>Y Yes, the system requires a serial number for all transactions pertaining to this item in related inventory, sales, and purchase order programs<li>N No, the system does not require a serial number <p>The system does not use this information if you use advanced serial number processing. Advanced serial number processing lets you 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 in Item Master Information (P4101).</p> <p>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:</p> <ul style="list-style-type: none"><li>3 Supplier lot number required (purchasing only)<li>4 Supplier lot number required (purchasing only), and Memo Lot 1 required<li>5 Supplier lot number required (purchasing only), Memo Lot 1 required, and Memo Lot 2 required

Entering Information for Lots



When you assign a new lot number to an item, the system creates a lot. For example, if you assign lot number 123 to a group of items upon receipt, and the lot number does not already exist, the system creates a new lot called 123. You can specify information for lot 123 by locating it on Lot Master Revisions.

You might want to 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.

When you enter lot information, you can specify the lot 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 add 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 allow the system to process a lot that contains only one item, yet whose quantities are located in multiple warehouses. For example, suppose that lot 234 consists of one item, bicycle tires. Suppose that warehouse A represents the bulk warehouse, where the majority of the tires arrive. 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 (the item in all three warehouses is identical and can belong to the same lot). Although the tires are spread across multiple warehouses, you can easily track them through the unique lot number.

Entering lot information includes:

- Manually creating lots
- Entering lot control information
- Entering supplier information

What You Should Know About

Assigning new lot numbers to items

You can assign new lot numbers to items when you perform purchase order receipts, inventory adjustments, and work order completions. 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 are controlled by grade or potency, the system uses the standard grade or potency from Item Master or Item Branch Information.

Item/Lot Ledger

You can track changes to lot status, grade, and potency on Item/Lot Ledger.

See Also

- *Assigning Item Locations (P41024)* in the *Inventory Management Guide* for information about adding new lots to item locations
- *Entering Grade/Potency Control Values (P41013)* in the *Inventory Management Guide* for information about item grades and potencies
- *Set Up System Constants (P4009W)* in the *Inventory Management Guide* for information about allowing duplicate lots
- *Viewing Item Information (P4111)* in the *Inventory Management Guide* for information about viewing the Item/Lot Ledger

▶ **To create a lot manually**

On Lot Master Revisions

Discrete Manufacturing

Complete the following fields:

- Branch/Plant
- Lot
- Item Number
- Lot Expiration

Field	Explanation
Lot	<p>A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.</p> <p>..... <i>Form-specific information</i></p> <p>If a lot number has leading zeros, you must type them as part of the lot number.</p>
Lot Expiration Date	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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).</p>

▶ **To enter lot control information**

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	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>The default for this field comes from the lot status code you assign to the item on Item Master Information or Item Branch/Plant Information.</p> <p>The code you enter here serves as the lot status default when you create a new item location for the lot.</p>
Lot Potency	A code that indicates the potency of the lot 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).

Field	Explanation
Lot Grade	<p>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:</p> <p style="margin-left: 40px;">A1 premium grade A2 secondary grade</p> <p>The grade for a lot is stored in Lot Master table (F4108).</p>
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 damaged in shipment or goods placed in quarantine.
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 the actual grade was lower than expected or because the lot was downgraded due to aging.

► To enter supplier information

On Lot Master Revisions

Complete the following fields:

- Supplier
- Supplier Lot
- Order Number

Field	Explanation
Supplier	<p>The address book number of the preferred provider of this item.</p> <p>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.</p>
Supplier Lot	The supplier's lot number for the item.

Field	Explanation
Order Number	A number identifying the original document. This can be an invoice number, work order number, sales order number, journal entry number, and so on. <i>..... Form-specific information</i> 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 for Lot Master Revisions

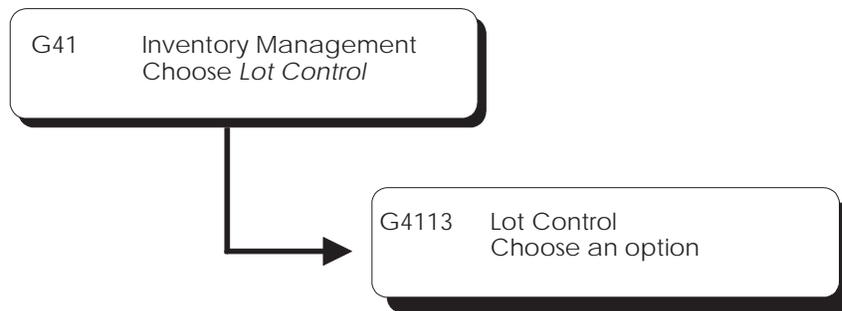
PROCESS CONTROL:

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. _____

Work with Lot Availability



Working with Lot Availability

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.

To work with lot availability, you can:

- View lot availability
- Work with lot quantities
- Work with lot activity dates
- Work with lot statuses

Viewing Lot Availability

You can view availability for:

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

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

► To view lot availability

On Lot Availability

Lot Number	S	Status	Rea	Expires	Quantity on Hand / Held	Available
9309150015		Approved		09/15/94		
9601050006		Approved		01/05/97		
9601050007		Approved		01/05/97		
9601050008		Approved		01/05/97		
9601120000		Approved		01/12/97		
9601120001		Approved		01/12/97		
9601120002		Approved		01/12/97		
9601120003		Approved		01/12/97	5000	5000
9601180000		Approved		01/18/97		
9601180001		Approved		01/18/97		
9601180002		Approved		01/18/97		

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

- Branch/Plant
- History
- From Grade
- Thru Grade
- From Potency
- Thru Potency
- Lot
- Item Number

2. Review the following fields:

- Lot Status Code
- Status Change Reason
- Expiration Date
- Quantity on Hand/Held
- Available

Field	Explanation
History	<p>A code that tells the system to display information for all locations and lots or only for those with on-hand balances. Valid codes are:</p> <p>N Display only locations and lots with on-hand balances</p> <p>Y Display all locations and lots</p>
From Grade	<p>A code (system 40, type LG) that indicates the minimum grade acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that have a grade below the minimum grade acceptable. The system does not allow you to sell items that have a grade below the minimum acceptable level.</p>
Thru Grade	<p>A code (system 40, type LG) that indicates the maximum grade acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that have a grade above the maximum grade acceptable. The system does not allow you to sell items that have a grade above the maximum grade acceptable.</p>
From Potency	<p>A number that indicates the minimum potency, or percentage of active ingredients, acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that fall below the minimum acceptable potency. The system does not allow you to sell items that fall below the minimum acceptable potency.</p> <p>..... <i>Form-specific information</i></p> <p>This is the minimum potency acceptable for items in this lot.</p>
Thru Potency	<p>A number that indicates the maximum potency, or percentage of active ingredients, acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that have a potency above the maximum potency acceptable. The system does not allow you to sell items that have a potency above the maximum potency acceptable.</p> <p>..... <i>Form-specific information</i></p> <p>This is the maximum potency acceptable for items in this lot.</p>

Field	Explanation
Quantity on Hand/Held	The number of units that are physically in stock. The quantity on hand displays in the primary unit of measure. <i>Form-specific information</i>
	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 on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up on Branch/Plant Constants form.

What You Should Know About

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

See Also

- *Locating Detailed Quantity Information (P41023)* in the *Inventory Management Guide* for information on how the system calculates item availability
- *Locating Summary Quantity Information by Item and Location (P41202)* in the *Inventory Management Guide* for information on viewing detailed item availability by location and lot

Processing Options for Lot Availability

DREAM WRITER VERSIONS:

1. Enter the Version of the Trace/Track Inquiry to call. _____
2. Enter the Version of Item Master Revisions to call. _____
3. Enter the Version of Work Order Entry to call. _____
4. Enter the Version of Branch/Plant Item Information to call. _____

FIELD DISPLAY CONTROL

5. Enter a '1' to protect Lot Status from being updated. _____

GRADE AND POTENCY:

6. Enter a '1' to display the grade range. If left blank, no range will be displayed for selection. _____

7. Enter a '1' to display the potency range. If left blank, no potency will be displayed for selection.

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 in user defined codes (system 40, type LQ). These quantity types might reflect the quantity of items:

- Received
- Issued
- Adjusted
- Completed
- Approved
- Sold

You set up user defined codes (system 40, type 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, which display 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.

Working with lot quantities involves:

- Reviewing lot quantities
- Setting up the system to track lot quantities

► **To review lot quantities**

On Lot Master Revisions

Branch/Plant: M30

Lot/SN: 9603010009

Item Number: 1261 Multivitamin Tablets

Lot Description: Multivitamin Tablets

Lot Expiration: 03/02/97

Lot Status Code: Approved

Lot Potency: Not Graded

Supplier Lot: 110525 W0

Order Number: 110525 W0

Dates:

Received/Created	11/29/94
Issued	
Recalibrated	
Completed	03/01/96
Approved	
Sold	

Quantities:

Quantity on Hand	5000
Available	5000
Quantity Held	
Received	
Issued	
Adjusted	
Completed	5,000
Approved	
Sold	

F10=Category Codes F15=Location Lot Status Window F24=More Keys MW

1. Complete the following fields to view quantities for a particular lot:
 - Branch/Plant
 - Lot
 - Item Number

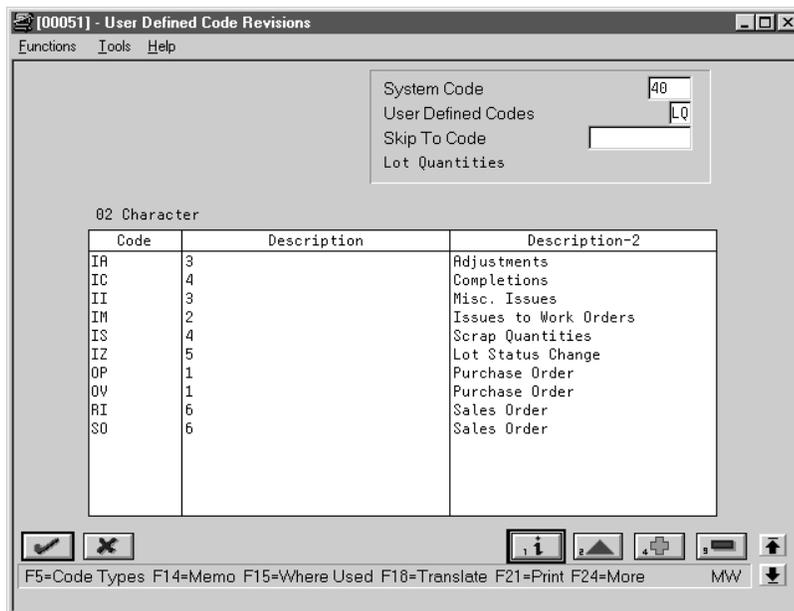
2. Review the following fields:
 - Quantity on Hand
 - Available
 - Quantity Held
 - Quantities Received
 - Quantities Issued
 - Quantities Adjusted
 - Quantities Completed
 - Quantities Approved
 - Quantities Sold

Field	Explanation
Quantities Received	<p>A type of quantity. This field represents quantity category 1. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items received in this lot.</p>
Quantities Issued	<p>A type of quantity. This field represents quantity category 2. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items issued from this lot.</p>
Quantities Adjusted	<p>A type of quantity. This field represents quantity category 3. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items adjusted to this lot.</p>
Quantities Completed	<p>A type of quantity. This field represents quantity category 4. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items completed and assigned to this lot.</p>
Quantities Approved	<p>A type of quantity. This field represents quantity category 5. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items approved in this lot.</p>

Field	Explanation
Quantities Sold	<p>A type of quantity. This field represents quantity category 6. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items sold from this lot.</p>

► To set up the system to track lot quantities

On Lot Quantities



- Complete the following fields for each document type:
 - 02 Character Code
 - Description
 - Special Handling Code
 - Hard Coded Y/N
- Assign one of the category types to each document type by entering its associates number in the following field:
 - Description-2

Processing Options for Lot Master Revisions

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. _____

Processing Options for Lot Quantities

DEFAULT CODE/TYPE:

1. Enter the desired Install System Code. _____
2. Enter the desired Record Type. _____

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 table 40/LD. These activity dates might reflect the last time that an item was:

- Received/Created
- Issued
- Recalibrated
- Completed
- Approved
- Sold

You set up user defined codes (system 40, type 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, which display on Lot Master Revisions.

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.

Working with activity dates involves the following tasks:

- Reviewing and changing activity dates for a single lot
- Changing activity dates for multiple lots
- Setting up the system to track lot dates

► **To review and change activity dates for a single lot**

On Lot Master Revisions

1. To view dates for a particular lot, complete the following fields:
 - Branch/Plant
 - Lot
 - Item Number
2. Review and/or change the following dates for the appropriate lots:
 - Date Received/Created
 - Date Issued
 - Date Recalibrated
 - Date Completed
 - Date Approved
 - Date Sold

Field	Explanation
Date Received/Created	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, receipts).</p> <p>This field represents date category 1. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The last date that items were created or received in the lot.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>
Date Issued	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, issues to work orders).</p> <p>This field represents date category 2. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The last date that items from the lot were issued to work orders.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>
Date Recalibrated	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, recalibration dates).</p> <p>This field represents date category 3. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The last date that inventory adjustments were made to this lot.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>

Field	Explanation
Date Completed	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, inventory completions).</p> <p>This field represents date category 4. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The last date that inventory completions were made to this lot.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>
Date Approved	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, lot status approvals).</p> <p>This field represents date category 5. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The date that the lot was approved.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>
Date Sold	<p>The last date that a particular activity occurred. You determine the type of activity that the category represents (for example, sales).</p> <p>This field represents date category 6. You specify the document types that update this category in user defined codes (system 40, type LD).</p> <p>..... <i>Form-specific information</i></p> <p>The last date that items were sold from this lot.</p> <p>Although you can change this date, the system automatically updates this field based on how you set up the user defined code (system 40, type LD).</p>

► To change activity dates for multiple lots

On Speed Lot Update

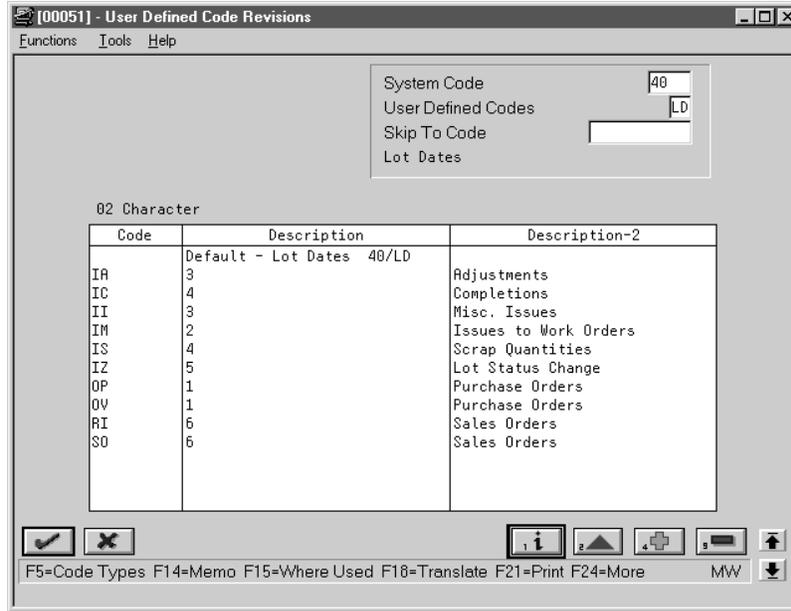
Serial Number	Date Received	Date Issued	Date Tested	Date Complete	Quantity On Hand	Quantity Available
9601120003	11/28/94			01/12/96	5000	5000
9603010009	11/29/94			03/01/96	5000	5000
9603080009	11/29/94			03/08/96	5000	5000
9603150010	11/29/94			03/15/96	5000	5000
9603220009	11/29/94			03/22/96	5000	5000
9603290009	11/29/94			03/29/96	5000	5000
9605030008	11/29/94			05/03/96	5000	5000
9605100008	11/29/94			05/10/96	5000	5000
9605170008	11/29/94			05/17/96	5000	5000
9605240002	11/29/94			05/24/96	3000	3000
9701260000	12/15/94			01/26/97	11000	11000
9702030000	12/15/94			02/03/97	5000	5000
9702030001	12/15/94			02/03/97	5000	5000
9704090000	12/15/94			04/09/97	10000	10000
9704100000	12/15/94			04/10/97	10000	10000

1. Complete the following fields:
 - Branch/Plant
 - History (Y/N)
 - Item Number
 - Supplier Lot

2. Review and/or change the following dates for the lots you select:
 - Date Received
 - Date Issued
 - Date Tested
 - Date Complete

► **To set up the system to track lot dates**

On Lot Dates



Discrete Manufacturing

1. Complete the following fields for each document type:
 - 02 Character Code
 - Description
 - Special Handling Code
 - Hard Coded Y/N
2. Assign one of the category types to each document type by entering its associated number in the following field:
 - Description-2

Processing Options for Speed Lot Update

PROCESS CONTROL:

1. Enter a '1' to protect the lot grade from being updated. _____
2. Enter a '1' to protect the lot potency from being updated. _____

DEFAULT PROCESSING:

3. Enter the document type to be used when updating the lot grade. _____
 If left blank, the default document type 'CG' will be used.

4. Enter the document type to be used when updating the lot potency. If left blank, the default document type 'CP' will be used.

Processing Options for Lot Dates

DEFAULT CODE/TYPE:

1. Enter the desired Install System Code.
2. Enter the desired Record Type.

Working With Lot Statuses

You set up lot status codes to identify 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 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

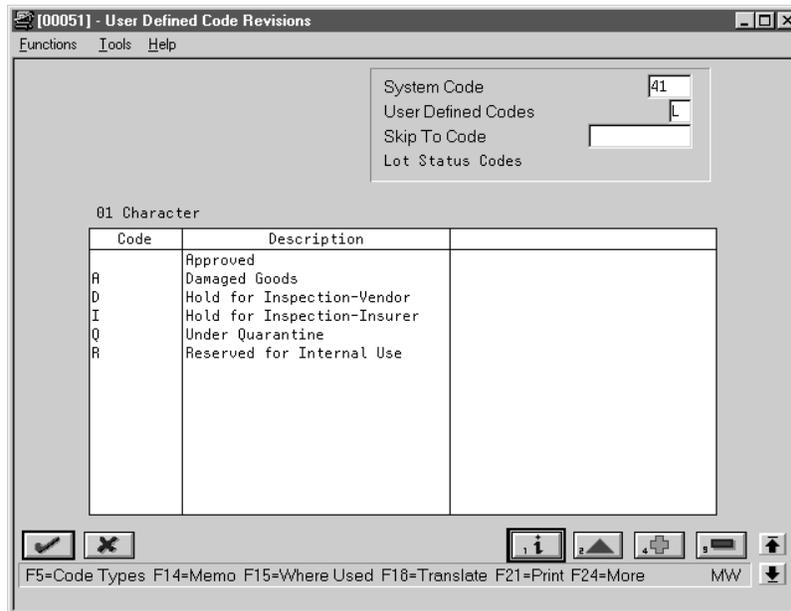
You can run the Lot Status Update program to place expired lots on hold. You can preview a list of all lots that will be put on hold by running the program in proof mode.

41082	J.D. Edwards & Company Hold Expired Lots	Page No. 3 Date 4/10/98		
		Branch/Plant 30 Lot Expiration Date. 08/30/98 Mode - Processing. . . Proof Lot Status Code. . . Q		
Item Number	Description	Location	Lot Number	Date Expires
V001	Natureway High Energy Vitamins	. .	00000004	05/16/98
V001	Natureway High Energy Vitamins	. .	00000005	08/26/98
12829	Parselenium		9309150009	08/14/98
V001	Natureway High Energy Vitamins	. .	9310140000	08/15/98
V001	Natureway High Energy Vitamins	. .	9310140001	08/16/98
V001	Natureway High Energy Vitamins	. .	9310140002	08/26/98
V001	Natureway High Energy Vitamins	. .	9310140003	08/26/98
I0006-I	Spray Dry Powder 1200 Grams		9503120000	02/19/98
12845	Buffer, inert		9601050000	01/04/98
12845	Buffer, inert		9601110000	01/10/98

Discrete Manufacturing

▶ **To set up lot status codes**

On Lot Status Codes



Complete the following fields for each status code:

- 01 Character Code

- Description
- Special Handling Code
- Hard Coded Y/N

▶ To assign status codes to different lot locations

On Lot Master Revisions

1. Locate the appropriate lot and item.

Lot Status	Rsn	Location	Quantity On Hand / Held	Available
New				
Current			5000	5000

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

What You Should Know About

Assigning status codes to locations

You can assign status codes to locations as well as lots. The system determines if a lot is on hold before determining if the location is on hold.

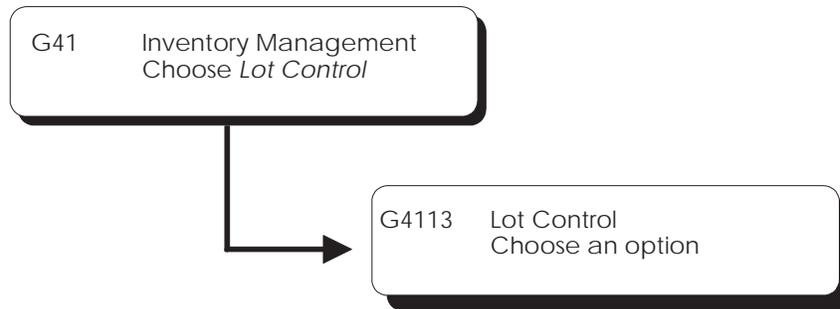
The system can process items out of locations on hold depending on the program in which you are working and the way that processing options are set.

Processing Options for Lot Status Update

PROCESS CONTROL:

1. Enter the expiration date. Any lots having an expiration date less than or equal to this date will be placed on hold. _____
2. Enter the lot status code to be used for placing lots on hold. _____
3. Enter the reason code for changing the lot status. If left blank, no code will be written. _____
4. Enter a '1' to process in final mode. If left blank, processing will be in proof mode only. _____
5. Enter a '1' to generate a report. If left blank, no report will be produced. _____

Work with Lot Transactions

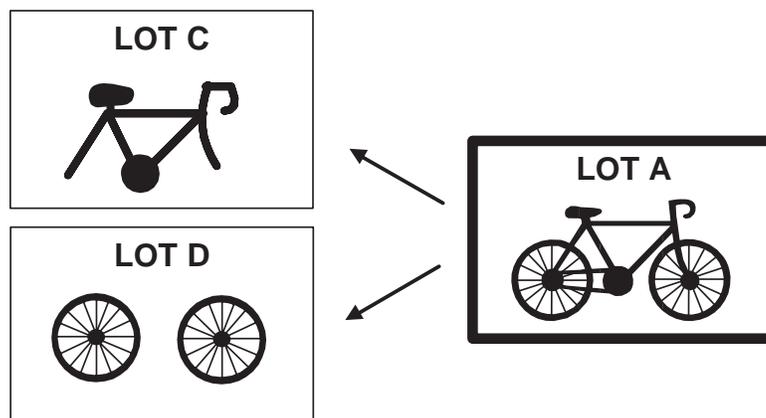


Working with Lot Transactions

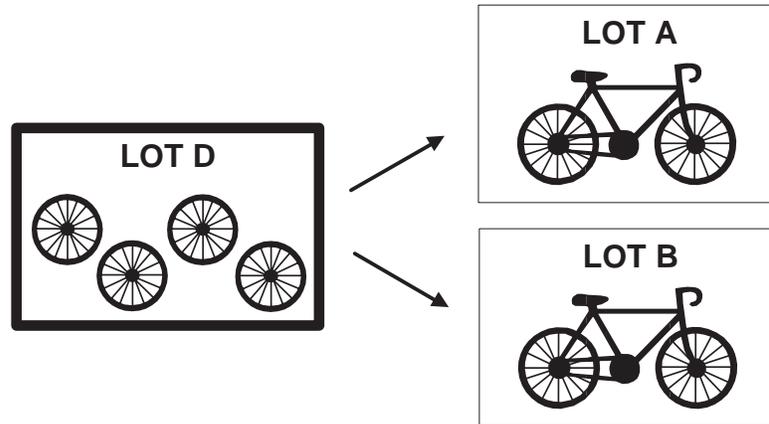
You might want to view the transactions that have affected a lot, such as:

- The receipts, inventory issues, and so on, that resulted in items being assigned to the lot
- The inventory issues, work order completions, sales, and so on, that resulted in items being removed from the lot

You 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.



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.



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.

Viewing lot transactions involves:

- Setting up trace/track inclusion rules
- Reviewing trace and track information
- Defining a trace/track mode

Setting Up Trace/Track Inclusion Rules

Before you use Lot Tracing and Lot Tracking, you must set up trace/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 Order Management system, you can specify that the document type OP (purchase orders) apply to lot tracing. Then, each time you receive a lot item, the receipt transaction displays on Lot Tracing.

► To set up trace/track inclusions rules

On Trace/Track Inclusion Rules

The screenshot shows a window titled "[00051] - User Defined Code Revisions". It contains a form with the following fields:

- System Code: 40
- User Defined Codes: DC
- Skip To Code: (empty)
- Trace/Track Document Types: (empty)

Below the form is a table with the following data:

02 Character		
Code	Description	Description-2
IA	Inventory Adjustment	B Bottom
IC	Work Order Completions	C Completion
IM	Work Order Issues	I Issue
IR	Inv. Receipts/Adjustments	B Bottom
OP	Receipts	B Bottom
OV	Receipts	B Bottom
RI	Sales Invoice	
SO	Sales Orders	C Completions
SW	Software	

At the bottom of the window, there are several icons and a legend: F5=Code Types, F14=Memo, F15=Where Used, F18=Translate, F21=Print, F24=More, MW, and a scroll arrow.

- Complete the following fields for each document type:
 - 02 Character Code
 - Description
 - Special Handling Code
 - Hard Coded Y/N
- Assign a value to each document type in the following field:
 - Description-2

What You Should Know About

Issue transactions You must include the issues document type (IM) in inclusion rules if you perform multi-level tracing and tracking. You must assign the issues document type a value of I in the Description-2 field.

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.

Reviewing Trace and Track Information

You can review trace and track information online or print a report that provides the information. You determine whether the report shows tracing or tracking information using processing options for the Trace/Track Print program.

Trace Order

Parent Lot Lot Number	Item Number	Branch	Level	Trans Qty	Date	Trans Description	Order No	Ty	Customer/Vendor
41505						Idaho Power Lot Tracing Report			
									Page - 2 Date - 8/08/98
13363	TELEPHONE		10	Lot Grade	Lot Potency				
51013827	TELEPHONE UNIT		10	1	10- 03/08/95	Inventory Issue	13363	IM	
				Lot Grade	Lot Potency				
51013827	TELEPHONE UNIT		10	.2	100 03/08/95	Inventory Receipt	34	OV	Edwards, J.D. & Co
				Lot Grade	Lot Potency				
51013828	TELEPHONE CORD		10	1	10- 03/08/95	Inventory Issue	13363	IM	
				Lot Grade	Lot Potency				
51013828	TELEPHONE CORD		10	.2	100 03/08/95	Inventory Receipt	34	OV	Edwards, J.D. & Co
				Lot Grade	Lot Potency				
51013829	TELEPHONE RECEIVER		10	1	10- 03/08/95	Inventory Issue	13363	IM	
				Lot Grade	Lot Potency				
51013829	TELEPHONE RECEIVER		10	.2	100 03/08/95	Inventory Receipt	34	OV	Edwards, J.D. & Co
				Lot Grade	Lot Potency				

Track Order

Lot Number Parent Lot	Item Number	Branch	Level	Trans Qty	Date	Trans Description	Order No	Ty	Customer/Vendor
41505						Idaho Power Lot Tracking Report			
									Page - 2 Date - 8/08/98
13363	TELEPHONE		10	Lot Grade	Lot Potency				
13363	TELEPHONE		10	1	10 03/08/95	Inventory Complet	13363	IC	
				Lot Grade	Lot Potency				

► **To review trace and track information**

On Lot Tracing or Lot Tracking

The screenshot shows a window titled "[41203] - Lot Tracing (down)" with a menu bar (Functions, Options, Tools, Help) and a "Mode" field containing the number 3. Below the menu is a form with the following fields:

- Lot/SN: 9603010009
- Item Number: 1261
- Branch/Plant: M30
- Lot Grade: (empty)
- Lot Potency: (empty)

Below the form is a table with the following columns: Level, Serial Number, Item Number, Quantity, Trn Date, and Explanation. The table contains 16 rows of data:

Level	Serial Number	Item Number	Quantity	Trn Date	Explanation
1	9309150013	12706	125-	03/01/96	Inventory Issue
2	9309150013	12706	10000	09/15/93	Inventory Comple
3	9309150000	12714	500-	09/15/93	Inventory Issue
4	9309150000	12714	5000	06/15/98	Inventory Receipt
3	9309150001	12722	750-	09/15/93	Inventory Issue
4	9309150001	12722	7500	06/15/98	Inventory Receipt
1	9309150014	12781	30-	03/01/96	Inventory Issue
2	9309150014	12781	10000	09/15/93	Inventory Comple
3	9309150007	12790	30-	09/15/93	Inventory Issue
4	9309150007	12790	300	06/15/98	Inventory Receipt
3	9309150008	12802	2400-	09/15/93	Inventory Issue
4	9309150008	12802	24000	06/15/98	Inventory Receipt

At the bottom of the window, there are several buttons and keyboard shortcuts: a checkmark button, an 'X' button, a right arrow button, and a left arrow button. The text below these buttons reads: "Opt: 1=Lot Master F15=Trace/Track F24=More Keys MW".

1. Complete the following fields for the lot you want to trace or track:
 - Mode
 - Lot
2. If system constants are set to allow duplicate lots, complete the following fields:
 - Item Number
 - Branch/Plant
3. Review the following fields, as necessary:
 - Level
 - Lot Number
 - Item Number
 - Quantity
 - Transaction Date
 - Explanation
 - Order
 - Branch/Plant
 - Lot Grade

- Lot Potency
- 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.
Trn Date	The date that an order was entered into the system. This date determines which effective level is used for inventory pricing.
Explanation	This text identifies the reason that a transaction occurred.

Defining a Trace/Track Mode

You determine the types of lot transactions that display on Lot Tracing and Lot Tracking by specifying a mode:

Mode 1	Single level transactions
Mode 2	Only origination and completion transactions
Mode 3	Multi-level transactions for kit, parent, or manufacturing assembly items
Mode 4	Multi-level transactions for kit, parent, or manufacturing assembly items displayed in a hierarchical format

You use mode 1 and mode 2 for non-assembled items. For tracing, you can view the transactions that resulted in items being assigned to the lot, such as receipts. For tracking, you can view the transactions that resulted in items being moved out of the lot, such as sales. Mode 2 does not display intermediate level transactions, which are transactions that apply to both tracing and tracking.

Modes 3 and 4 are for items made up of several components. You can view all transactions affecting the lot, including receipts, issues, completions, and sales.

▶ **To specify a trace/track mode**

On Lot Tracing or Lot Tracking

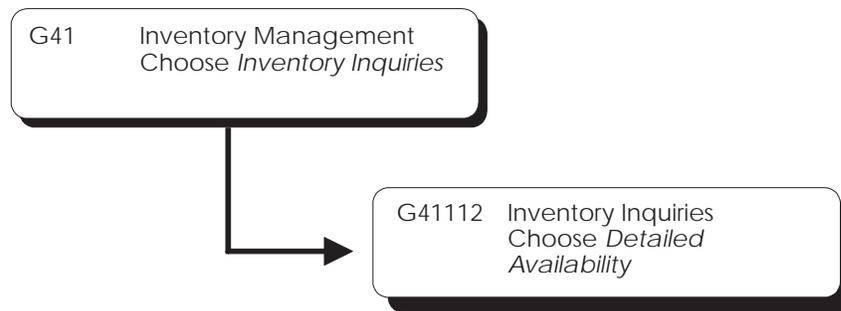
Complete the following field:

- Mode

Processing Options for Lot Tracing Inquiry

Enter a '1' to track lot usage. Default
is to trace lot usage. _____

Change Lot Classifications



Changing Lot Classifications

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

For example, property changes that occur over time in technical grade sulfuric 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.

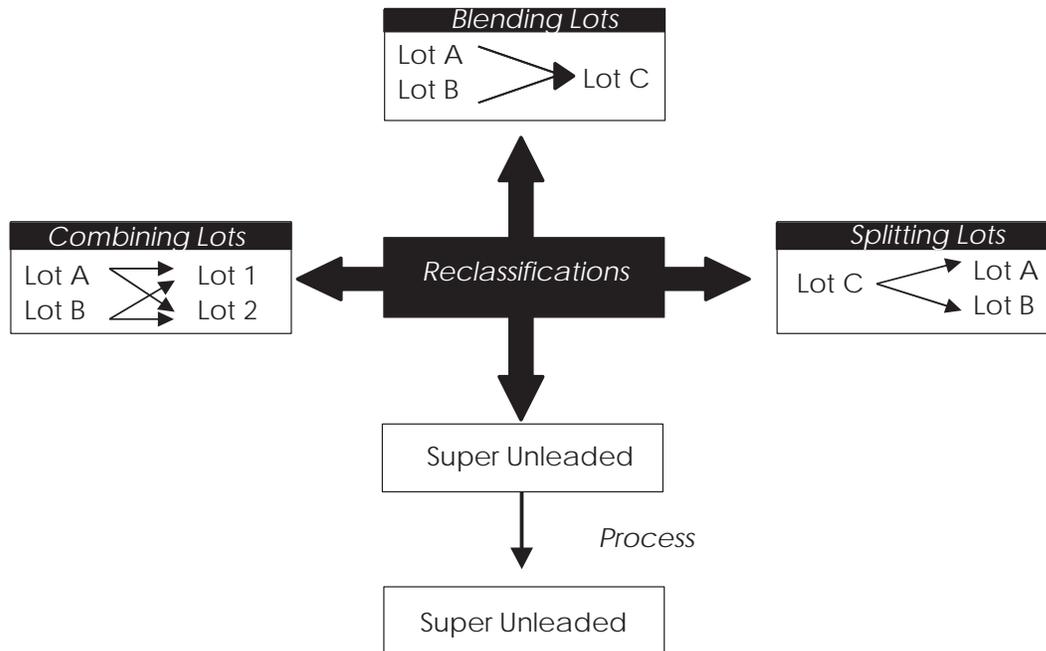
In a similar example, if you blend several lots of sulfuric acid and dilute them with water, you can create a new lot with a new potency and grade.

You can change a lot and any of the associated items in the following ways:

- 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

Example: Types of Reclassifications

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



When 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). The system updates this information only if you are using the Warehouse Management system in conjunction 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 the general ledger accounts in the Account Master table (F0901) are set up
- Verify that the automatic accounting instructions (AAIs) are set up for distribution



Use the Item/Lot Change Transactions program for reclassifying items and lots instead of the Issues program, Adjustments program, or the Transfers program. Using any of these programs to reclassify items or lots can adversely affect information throughout the Sales Order Management and Purchase Order Management systems.

▶ To change lot classifications

On Detailed Availability

Quantity Category	Quantity
Quantity on Hand	5000
Quantity on Soft Commit SO/WO	
Quantity on Hard Commit SO	
Quantity on Future Commit SO	
Quantity on Hard Commit WO	
Quantity on SO - Other 1	
Quantity on SO - Other 2	
Quantity Held	
Safety Stock	
Quantity on Purchase Order	
Quantity on PO - Other 1	
Quantity on Work Order Receipt	
Quantity in Transit	
Quantity in Inspection	
Quantity in Operation 1	
Quantity in Operation 2	
Total	5000

1. Complete the following fields to review uncommitted quantity information for the item and the related lot that you are reclassifying:
 - Branch/Plant
 - Item Number
 - Unit of Measure
2. Complete the following field to view item information for a location other than the primary one:
 - Location

3. Exit Detailed Availability.
4. Choose Reclassifications.

Item Number	Quantity	UM	Location	Lot o
F V001	1-	EA	1 .A .1	00000004
T V001	10	EA	1 .A .2	00000005

5. On Reclassifications, complete the following fields to enter reclassification information:
 - From Branch/Plant
 - To Branch/Plant
 - Transaction Date
 - Document Number
 - Document Type
 - Explanation
 - G/L Date
6. Access the fold area.

[4116] - Reclassifications

Functions Options Tools Help

Trans. Date 06/30/98

Document Number 127
 Document Type IT Explanation Combine Lots
 G/L Date Batch Number 77518
 From Branch/Plant 30 To Branch/Plant 30

Q	F	Item Number	Quantity	UM	Location	Lot o
	F	V001	1-	EA 1 .A .1		00000004
		Reason Code	Unit Cost		16.1500	Grade
		G/L Date 06/30/98	Extended Cost		16.15-	Potency
		Trans. Line 1.00	Branch/Plant		30	Lot Status
		Lot Expires 05/16/98	Lot Desc		Natureway High Energy Vitamins	
		Memo Lot 1	Memo Lot 2			
	T	V001	10	EA 1 .A .2		00000005
		Reason Code	Unit Cost		16.0000	Grade
		G/L Date 06/30/98	Extended Cost		160.00	Potency
		Trans. Line 1.00	Branch/Plant		30	Lot Status
		Lot Expires 08/26/98	Lot Desc		Natureway High Energy Vitamins	
		Memo Lot 1	Memo Lot 2			

Opt: 1=Item Search 2=Reverse 0=New Transaction F13=J/E F24=More

7. Complete the following fields to enter reclassification information for each branch/plant in which the item is stored:
 - From/To
 - Item Number
 - Quantity
 - Unit of Measure
 - Location
 - Reason Code
 - Unit Cost
 - Extended Cost
 - Transaction Line Number

8. Complete the following fields to create a new location and record for the lot:
 - Lot
 - Grade
 - Potency
 - Lot Description
 - Lot Expiration
 - 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	<p>The destination business unit that you want to copy accounts to.</p> <p>..... <i>Form-specific information</i></p> <p>The destination branch/plant that you want to move inventory to.</p>
From/To	<p>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.</p>
Transaction Line Number	<p>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.</p>

What You Should Know About

- Reclassifying uncommitted quantities of items** You can reclassify only uncommitted quantities of items and lots. See *Entering Item Master Information* in the *Inventory Management Guide* for information about how to determine if quantities are uncommitted for an item.
- 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.
- Correcting errors** You can correct a reclassification made in error by adding a reversing entry. Because records of each reclassification are kept for accounting purposes, you cannot delete the record. The system reverses the item in the same document number and batch as the original reclassification.
- Recording document numbers** When 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

When you add several reclassifications at the same time, you can group them for processing.

When 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 as one transaction.

Depending on how the processing options are set, the system validates that the From and To quantities balance.

Processing Options for Detailed Availability

- PURCHASE ORDERS:
 - 1. Enter the version of Open Purchase Orders to be used. If left blank, ZJDE0001 will be used. _____
- SALES ORDERS:
 - 2. Enter the version of Customer Service Inquiry to be used. If blank, ZJDE0001 will be used. _____
- WORK ORDERS:
 - 3. Enter the version of Open Work Orders to be used. If left blank, ZJDE0001 will be used. _____

Processing Options for Reclassifications

- DEFAULT VALUES :
 - 1. Document type for item change. _____
- PROCESS CONTROL :
 - 2. 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.

 - 3. Journal Entries (P09101) _____
 - 4. G/L Functional Server (XT0911Z1) _____
 - 5. Item Search (P41200) _____
 - 6. Item Ledger (P4111) _____
 - 7. Warehouse Requests (P46100) _____
- PROCESSING CONTROL :
 - 8. Enter a '1' to protect costs or a '2' to make costs non-display. _____

If left blank, the update of costs is allowed.

9. 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.
10. Enter a '1' to allow transfers from held lots. _____
11. Enter a '1' to allow transfers greater than quantity available. _____
12. 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.
13. 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.)



Exercises

See the exercises for this chapter.

Test Yourself: Changing Item Classification

- 1. List the three functions of the Item Change Transactions program.

- 2. To reclassify an item, can you split one existing location/lot into multiple locations/lots? Explain.

- 3. How do you reverse an item reclassification?

- 4. List two methods for assigning an expiration date for newly created lots.

The answers to this Test Yourself are in *Appendix B*.

Review Availability and Shortages

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.

Reviewing availability and shortages includes the following tasks:

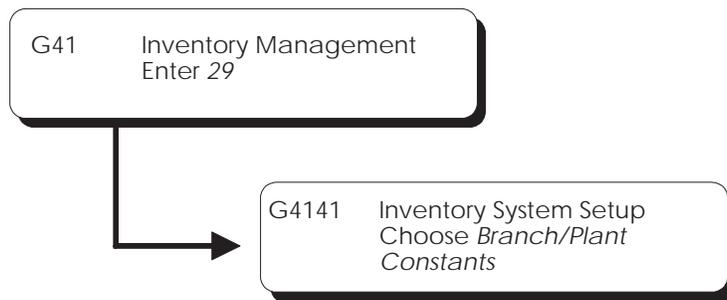
- Defining availability calculations for a branch
- Reviewing availability (optional)
- Managing shortage information (optional)
- Printing shortages (optional)

What You Should Know About

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.

Defining Availability Calculations for a Branch

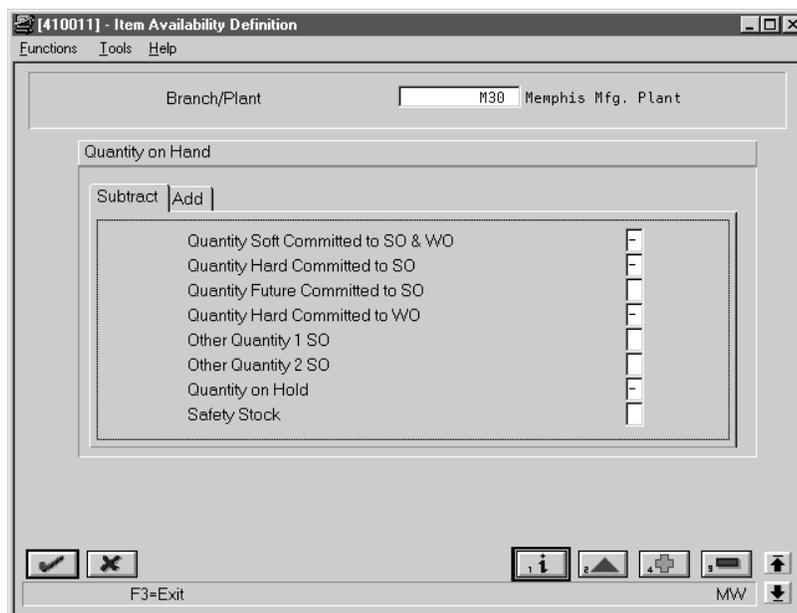


The system uses the quantities defined for each branch in the Inventory Management system to calculate availability. Therefore, you indicate the quantities you want the system to add or subtract from the on-hand balance when the system calculates availability at your branch. If you leave any field blank, the system excludes that quantity from the calculation.

► **To define availability calculation for a branch/plant**

On Branch/Plant Constants

1. Choose Item Availability.



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

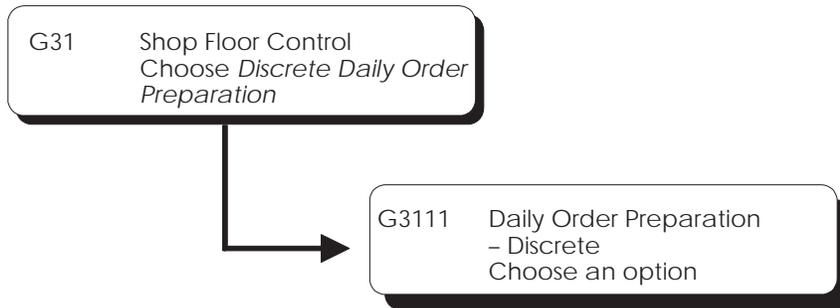
The screenshot shows the 'Item Availability Definition' window for item [410011] at the Memphis Mfg. Plant (M30). The 'Quantity on Hand' section is active, and the 'Subtract' tab is selected. The following items are listed with input fields:

Item	Input Field
Quantity on Purchase Order Receipts	<input type="text"/>
Quantity on PO - Other 1	<input type="text"/>
Quantity on Work Order Receipts	<input type="text"/>
Quantity in Transit	<input type="text"/>
Quantity in Inspection	<input type="text"/>
Quantity in Operation 1	<input type="text"/>
Quantity in Operation 2	<input type="text"/>

The window also includes a 'Functions' menu, 'Tools' and 'Help' buttons, and a status bar with 'F3=Exit' and several icons.

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

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

On Part Availability

Branch/Plant: M30
 Type Bill: M
 Mode: 1
 As of: 04/29/96

Parent Item: 5120 Oak Desk With Chair
 Requested Quantity: 1 EA
 Requested w/Shrink: 1

0	Lvl	Component Item	Description	Required	On Hand	Available	UM
	1	4277	FRAMING KIT, 30x60 D	1	550	149	EA
	1	4133	SIDE ASSY, 30x30 OAK	4	2540	1096	EA
	1	3999	BACK, OAK, 30x60, DE	1	660	299	EA
	1	3881	DRAWER SLIDES & HARD	7	1800	1007	EA
	1	3980	CENTER DRAWER FOR 30	1	800	399	EA
	1	3981	SIDE DRAWER, 30x60 D	4	1300	304	EA
	1	3982	FILE DRAWER, DESK, O	2	1000	198	EA
	1	4218	OAK DESK TOP 30 x 60	1	4271	599	EA
	1	2111	SEMI GLOSS HI TEST V	2	7342	2	GA
	1	5666	CHAIR, 5 LEG, W/TILT	1	4171	406	EA

Opt 1=Item Master 3=Item Avail 4=X-Ref 5=Item Search F24=More Keys MW

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

Field	Explanation
Quantity – 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.
Quantity Required	The number of units to which the system applied the transaction. <i>Form-specific information</i> For Shop Floor Control: The quantity of the component required.
Available Quantity	The quantity available can be on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up on Branch/Plant Constants form.

Processing Options for Part Availability

SAFETY STOCK:

1. Enter a '1' if Safety Stock is to be subtracted from the Quantity on Hand. If left blank Safety Stock will not be subtracted.

DISPLAY OPTIONS:

2. Enter the default Bill Type:
3. Enter '1' to prevent displaying phantom items when exploding the bill of materials.

► **To review parts list availability**

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

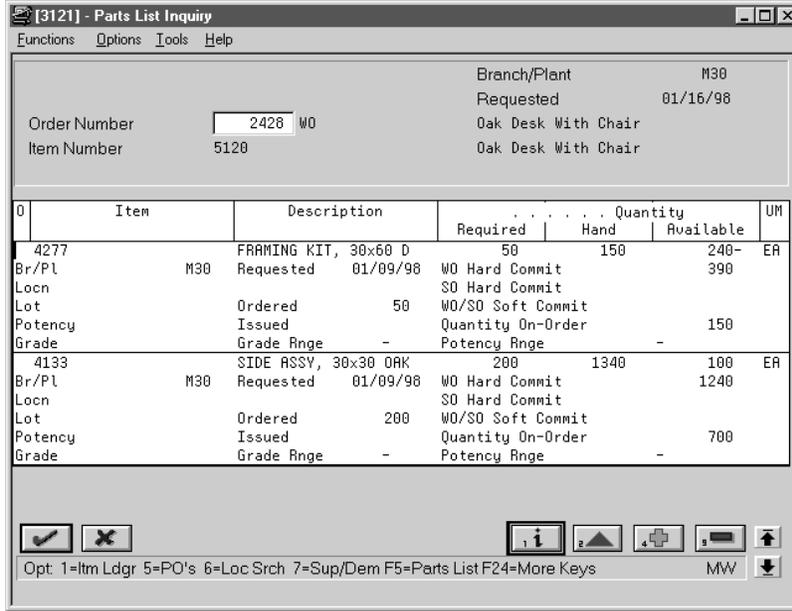
If you created a soft commitment for the item, the quantities displayed indicate the item's availability at all locations. If you created a hard commitment for the item, only quantities from the hard-committed locations display. You can also display the quantities of each item that have hard and soft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

On Parts List Inquiry

		Quantity		UM	
Item	Description	Required	Hand	Available	
4277	FRAMING KIT, 30x60 D	50	150	240-	EA
4133	SIDE ASSY, 30x30 OAK	200	1340	100	EA
3999	BACK, OAK, 30x60, DE	50	360	50	EA
3881	DRAWER SLIDES & HARD	350	1250	1190-	EA
3980	CENTER DRAWER FOR 30	50	450	100	EA
3981	SIDE DRAWER, 30x60 D	84	500	680-	EA
3981	SIDE DRAWER, 30x60 D	116	400	180	EA
3982	FILE DRAWER, DESK, O	100	900	100	EA
4218	OAK DESK TOP 30 x 60	50	4071	400	EA
2111	SEMI GLOSS HI TEST V	100	7042	300-	GA
5666	CHAIR, 5 LEG, W/TILT	50	3671	93-	EA

Opt: 1=Item Ldgr 5=PO's 6=Loc Srch 7=Sup/Dem F5=Parts List F24=More Keys Opt: 1=Item Ld MW

1. Complete the following field:
 - Order Number
2. Access the fold area.



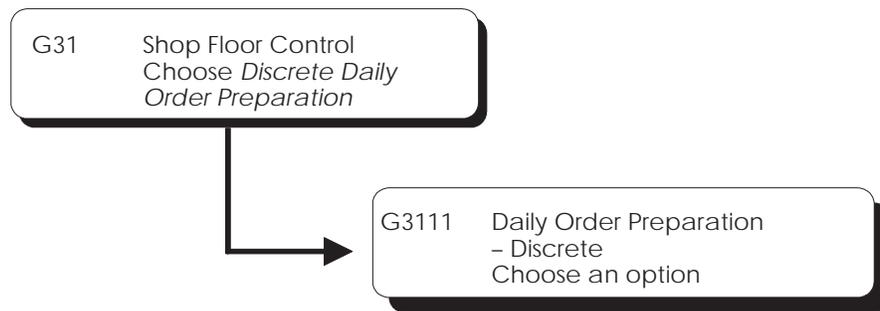
Field	Explanation
Required Quantity	The total quantity requested.
Quantity – Work Order Hard Commit	The number of units hard committed to work orders in the primary unit of measure.
Sales Order Hard Commit	The number of units committed to a specific location and lot.
Work Order/Sales Order Soft Commit	The number of units 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 for Parts List Inquiry

DREAM WRITER VERSIONS:

1. Enter the version of Purchase Order Inquiry to execute. If blank, version 'ZJDE0001' will be used. _____
2. Enter the version of Supply/Demand Inquiry to execute. If blank, version 'ZJDE0001' will be used. _____

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

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

The screenshot shows the 'Shortage Workbench' window with the following fields and data:

Branch/Plant: M30
 Ingredient: [Empty]
 Order Number: 65111 WO

Q P	Order Number	Or Ty	Due Date	Short Quantity	UM	Cumulative Quantity	Date Entered	Deliver to W/C
	65111	WO	09/02/98	240	EA	N/R	02/23/95	200-203
	65111	WO	09/02/98	400	EA	N/R	02/23/95	200-203
	65111	WO	09/02/98	100	EA	N/R	02/23/95	200-203

Opt: 1=Issues 2=Maintenance F4=More Detail F24=More Keys MW

Complete the following fields:

- Branch/Plant
- Item Number

Processing Options for Shortage Workbench

ORDER INVENTORY ISSUES:

1. Enter the DREAMWriter version of Order Inventory Issues to be called. The default is ZJDE0001. _____

SHORTAGE MAINTENANCE:

2. Enter the DREAMWriter version of Shortage Maintenance to be called. The default is ZJDE0001. _____

WORK ORDER TYPE:

3. Enter the default work order type. The default is 'WO'. _____

► **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

The screenshot shows a window titled "[3118] - Shortage Maintenance" with a menu bar (Functions, Options, Tools, Help). It contains input fields for "Item Number", "Order Number" (65111), and "WO". A "Branch/Plant" field is set to "M30". Below these is a table with the following data:

O/P	Order Number	Or Ty	Due Date	W/O Item Number	Short Quantity	UM	Deliver To W/C
	65111	WO	09/02/98	212	240	EA	200-203
	65111	WO	09/02/98	424	400	EA	200-203
	65111	WO	09/02/98	444	100	EA	200-203

At the bottom, there are icons for save, delete, help, and other functions, along with a legend: "Opt. 1=Open WO 2=Open PO 9=Delete F2=Shortage Workbench F24=More MW".

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 fold area.



4. Review the following default information:
 - From Order
 - Due

Field	Explanation
Due Date	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>The date that the component is needed. If you leave this field blank, the system uses the date in the work order parts list.</p>

Processing Options for Shortage Maintenance

OPEN WORK ORDERS:

1. Enter the DREAMWriter version of 'Open Work Orders' to be called. If blank, 'ZJDE0001' will be used.

OPEN PURCHASE ORDERS:

2. Enter the DREAMWriter version of 'Open Purchase Orders' to be called. If blank, 'ZJDE0001' will be used.

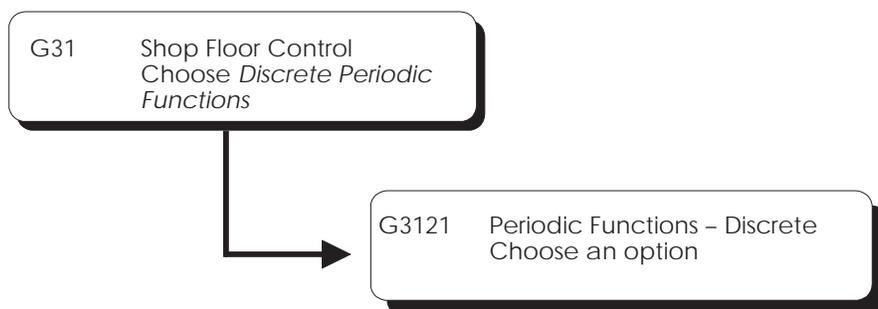
SHORTAGE WORKBENCH:

3. Enter the DREAMWriter version of 'Shortage Workbench' to be called. If blank, 'ZJDE0001' will be used.

WORK ORDER TYPE:

4. Enter the default work order type. If left blank, 'WO' will be used

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

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.

Printing Component Shortages

The Component Shortages 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.

31418										
J. D. Edwards and Company										
Work Order Component Shortage List										
Page - 2										
Date - 14.03.98										
W.O. Number	Ty	Item Number	Item Description	Start Date	Planner	Quantity Available	Quantity On Order	Quantity Required	Quantity Short	UM
16451	WO	COMP2	Component #2 - Grade C	28.02.95		442-		200	200-	EA
		COMP3	Component #3 - Regular	28.02.95		3000-		300	300-	EA
16513	WO	COMP2	Component #2 - Grade C	03.03.95		642-		40	40-	GA
16514	WO	COMP1	Component #1 - Potency	03.03.95		1		13	12-	GA
			Potency 10,000-	65,000						
		COMP2	Component #2 - Grade C	03.03.95		682-		26	26-	GA
64995	WO	COMP1	Component #1 - Potency	21.12.94		12-		10	10-	EA
		COMP2	Component #2 - Grade C	21.12.94		708-		2224	2224-	EA
		COMP3	Component #3 - Regular	21.12.94		3300-		333	333-	EA
		COMP3	Component #3 - Regular	21.12.94		3633-		30	30-	EA
68241	WO	CHOCOLATE	Chocolate	03.01.95				5000	5000-	LB
		MILK	Potency - 100,000	03.01.95				500	500-	QT
		CARAMEL	Potency - 100,000	03.01.95				600	600-	OZ
		CASHEWS	Potency - 100,000	03.01.95				100	100-	GM
			Potency - 100,000							

Processing Options for Component Shortages

SHORTAGE LIST PRINT INFORMATION:

1. Enter a '1' to Print only parts with a shortage. If left blank, all selected items will be printed.

Shop Floor Control Discrete Manufacturing

Printing 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.

3118P		J. D. Edwards and Company				Page - 2			
		Shortage Revisions Print				Date - 14.03.98			
Branch/Plant	Item	Description	Order Number	Or Ty	Due Date	Deliver To Branch/Plant	Deliver To Desc.	Short Quantity	UM
NY	CJ02	Chair Arms	157825	WO	16.01.95	NY	New York Warehouse	100	EA
Date Entered	17.01.95	From Order.		WO	Type	.	Configured Item		
		Branch					New York Warehouse	100	EA
10	4664D	4664-D	156697	WO	09.01.95	10	Modesto Distributio	100	EA
Date Entered	10.01.95	From Order.		WO	Type	.	Mfg. Assembly or Sub-Assembly		
		Branch					Modesto Distribution Center	100	EA
CHI	3980	CENTER DRAWER FOR 30x6	1821	WO	25.05.98	CHI	Chicago Warehouse	20	EA
Date Entered	25.05.98	From Order.		WO	Type	.	Mfg. Assembly or Sub-Assembly		
CHI	3981	SIDE DRAWER, 30x60 DES	1821	WO	25.05.98	CHI	Chicago Warehouse	80	EA
Date Entered	26.05.98	From Order.		WO	Type	.	Mfg. Assembly or Sub-Assembly		
CHI	2111	SEMI GLOSS HI TEST VAR	1821	WO	25.05.98	CHI	Chicago Warehouse	40	EA
Date Entered	25.05.98	From Order.		WO	Type	.	Purchased inc. Raw Material		
CHI	5666	CHAIR, 5 LEG, W/TILT	1142	WO	09.01.98		48-204 Final Assembly/Insp	50	
Date Entered	10.01.98	From Order.		WO	Type	.	Purchased inc. Raw Material		
CHI	5666	CHAIR, 5 LEG, W/TILT	1151	WO	16.01.98	WAREHOUSE	Warehouse Storage	150	
Date Entered	17.01.98	From Order.		WO	Type	.	Purchased inc. Raw Material		
CHI	5666	CHAIR, 5 LEG, W/TILT	1821	WO	25.05.98	CHI	Chicago Warehouse	20	EA
Date Entered	27.05.98	From Order.		WO	Type	.	Purchased inc. Raw Material		
CHI	123	HARDWARE KIT	1821	WO	25.05.98		200-103 Screw Machine	40	EA
Date Entered	03.03.95	From Order.		WO	Type	.	Purchased inc. Raw Material		
		Branch					Chicago Warehouse	160	EA
YARD	AR101278	Engine Oil Filter	157585	WM	02.04.95	MECH	Mechanical	1	EA
Date Entered	18.01.95	From Order.		WO	Type	.	Purchased inc. Raw Material		
YARD	AR101278	Engine Oil Filter	157585	WM	02.04.95	YARD	Yard	1	EA
Date Entered	18.01.95	From Order.		WO	Type	.	Purchased inc. Raw Material		
		Branch					Yard	2	EA
								362	EA

Test Yourself: Availability and Shortages

1. What is the main difference between the part availability and the parts list inquiries?

2. Where do you define item availability?

3. How do you exclude soft-committed items from being included in the quantity available?

4. From the Parts List Inquiry form, how do you access the Order Item Shortage window?

Mark the following statements true or false. For those statements that are false, change them to make them true.

5. The Part Availability form allows you to check availability against the bill of material for an item. True / False
6. The parts list displays the items required to complete the quantity for all work orders. True / False
7. Both the Part Availability form and Parts List form show the on-hand, required, and available quantities. True / False
8. Quantities in safety stock are always considered on hand. True / False
9. The shortage workbench allows you to locate shortage information for items associated with a work order. True / False

The answers to this Test Yourself are in *Appendix B*.

Understand Issue Transactions

About 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.

When Do You Issue Inventory?

You do not have to generate an issue transactions at the same time inventory is physically moved. The J.D. Edwards 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.

How Do You Issue Inventory?

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

Manual issues

The system deducts materials from inventory when you enter the issue transactions on the Issues form. See *Issuing Materials Manually*.

Preflushing	The system automatically deducts materials from inventory when you process a work order using the Order Processing program. See <i>Issuing Materials by Preflushing</i> .
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 <i>Completing a Work Order through Backflush</i> .
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 <i>Processing a Work Order by Super Backflush</i> .

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

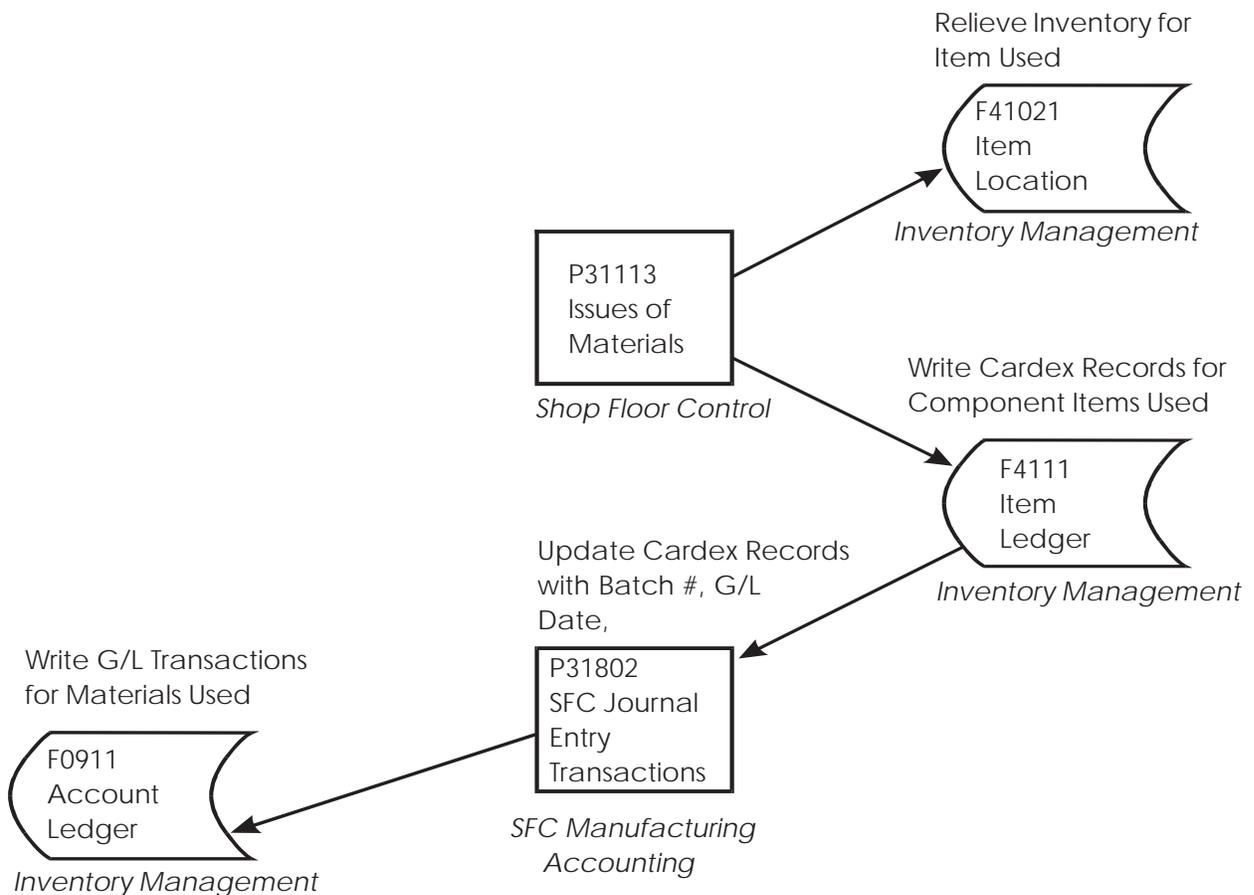
Processing options control whether the Operation Sequence and Date Requested fields allow you to enter an issue type code to restrict the items listed for issue.

Where Is Inventory Issued From?

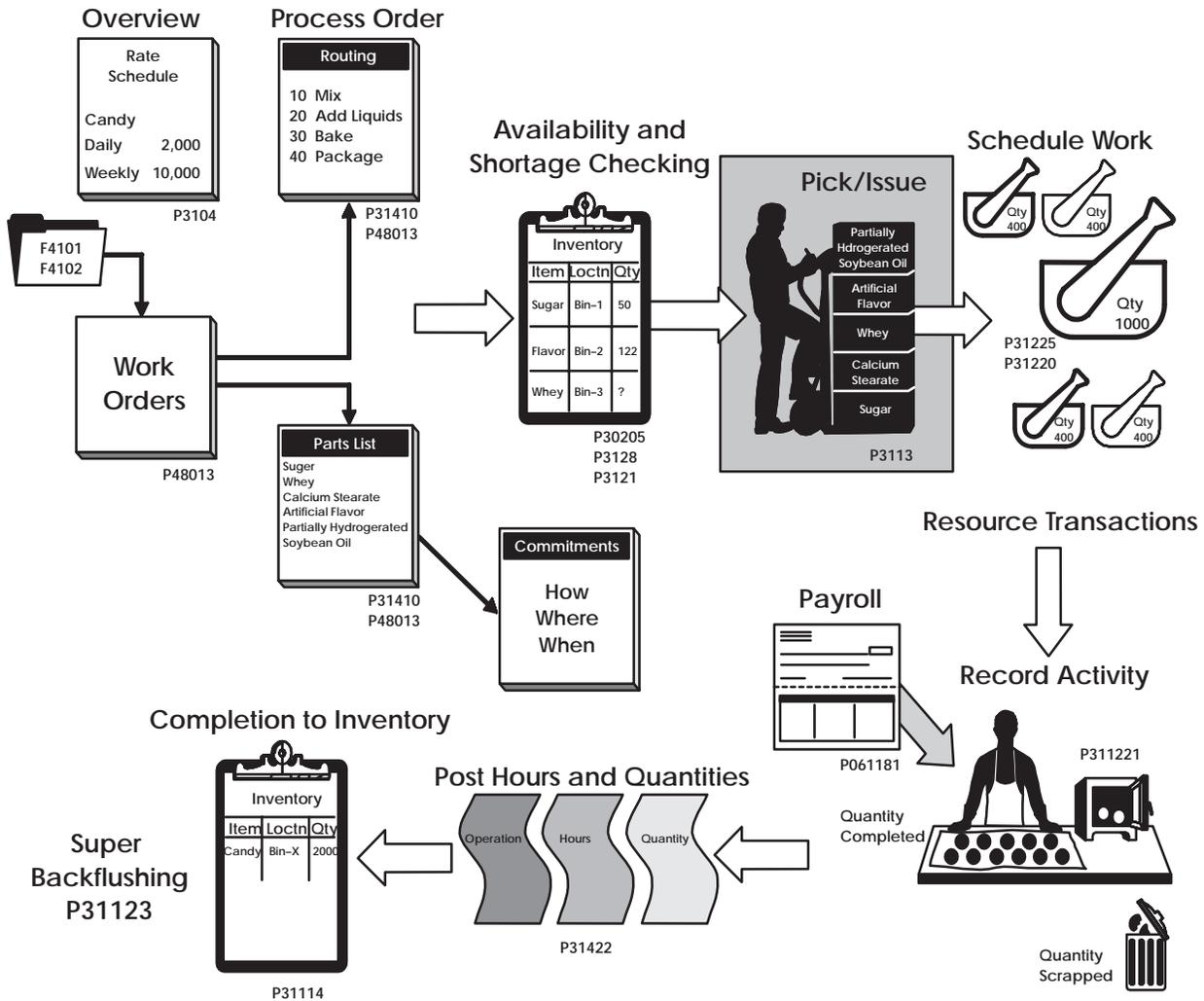
Inventory is issued from the location at which it is committed. You can change the commitment location for an item, so that it will be issued from a different location.

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.

What Tables Store Data when Issuing Inventory?



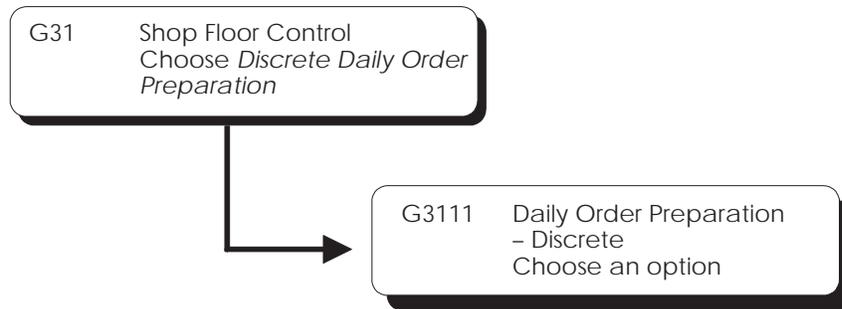
Where in the Process Do You Issue Inventory?



See Also

- *Completing Rate Schedules (P3114)* for information on recording completions for rate schedules
- *Inventory Management Guide* for more information on specifying locations for a commitment
- *Understanding Lot Processing* for information on issuing material that is lot controlled
- *Understanding Grade and Potency* for information on issuing material that is grade or potency controlled

Issue Materials



Issuing Materials

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.

Complete the following tasks:

- Issue materials by preflushing
- Issue materials manually (optional)
- Record component scrap (optional)

What You Should Know About

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 *Advanced Warehouse Management Guide* for information on how to confirm a pick request.

See Also

- *Understanding Grade and Potency* for information on issuing material that is grade or potency controlled

Issuing Materials by Preflushing

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.



J.D. Edwards 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

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.

What You Should Know About Processing Options

Inventory Issue Information (16)

Specify the DREAM Writer version of the batch inventory issues to execute. If you leave this option blank, the system does not call the Inventory Issues program.

Issuing Materials Manually

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

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 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 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 LSNs to view numbers previously assigned to work order assemblies.

See Also

- *Completing Rate Schedules (P3104)*

► **To issue material from a single location**

On Inventory Issues

The screenshot shows a window titled '[31113] - Inventory Issues' with a menu bar (Functions, Options, Tools, Help). The main area contains the following fields:

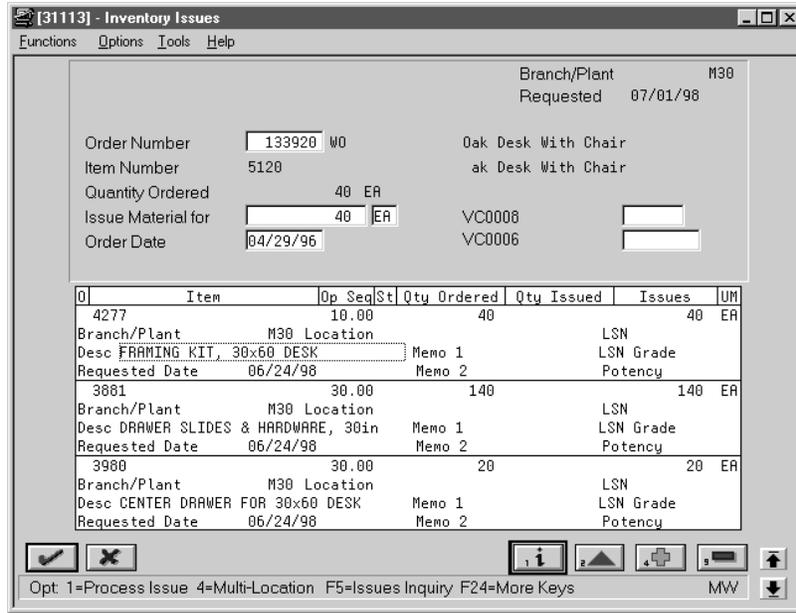
- Branch/Plant: M30
- Requested: 07/01/98
- Order Number: 133920 W0
- Item Number: 5120
- Quantity Ordered: 40 EA
- Issue Material for: 40 EA
- Order Date: 04/16/96
- VC0008
- VC0006

Below the fields is a table with the following data:

Op	Seq	St	Qty Ordered	Qty Issued	Issues	UM
1	4277		10.00	40	40	EA
1	3881		30.00	140	140	EA
1	3980		30.00	20	20	EA
1	3981		30.00	76	76	EA
1	3982		30.00	80	80	EA
1	3881		30.00	140	140	EA
1	3980		30.00	20	20	EA
1	3981		30.00	84	84	EA

At the bottom of the window, there is a status bar with the text: 'Opt 1=Process Issue 4=Multi-Location F5=Issues Inquiry F24=More Keys MW' and several icons.

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 fold area.



5. Review the following default information:

- Location
- LSN

Field	Explanation
Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>

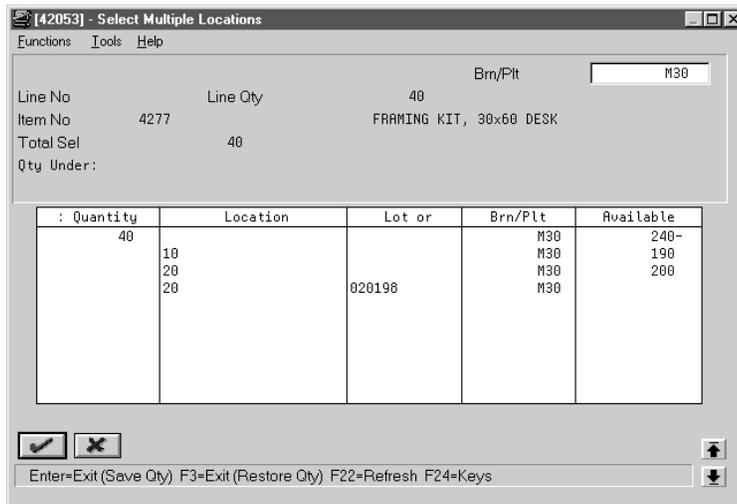
► To issue material from multiple locations

This task is only necessary if you want 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.



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

- Quantity
- Location
- Lot
- Branch/Plant

Field	Explanation
Available Quantity	The quantity available can be on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up on Branch/Plant Constants form.

Processing Options for Work Order Inventory Issues

UPDATE INFORMATION:

1. Enter the Document Type associated with an Inventory Issue. _____
2. Enter the Status Code for update to the Work Order Header. (Blanks will not update the header.) _____
3. Enter the default value for the the Material Status Code. (Blanks will not default a code.) _____
4. Enter the Status Code beyond which Issues cannot be made. _____

INQUIRY INFORMATION:

5. Enter a '1' to display only valid Issue Type Codes. (Blanks will _____)

display all Parts List Items.)

6. Enter a '1' to preload all screen detail lines with the Process Issue selection option value. _____

OPERATION SEQUENCE & DATE INQUIRY:

7. Enter a '1' to display operations that 'Equal' the entered Operation Sequence only. If left blank, the value will be used as a 'Skip To'. _____

8. Enter a '1' to display operations that 'Equal' the entered Requested Date only. If left blank, the value will be used as a 'Skip To'. _____

EDIT INFORMATION:

9. Enter a '1' to give an error if the quantity on hand is negative. (Blanks will not give an error.) _____

ITEM SALES HISTORY INFORMATION:

10. Enter a '1' if you wish issues to effect Item Sales History (F4115). _____

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. Blanks will not allow issues to held lots. _____

VERSION CONTROL:

12. Enter the Version of Shortage Maintenance to be called. If left blank, version 'ZJDE0001' will be used. _____

UNPLANNED ISSUES:

13. Enter '1' to allow for unplanned issues. _____

Recording 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).

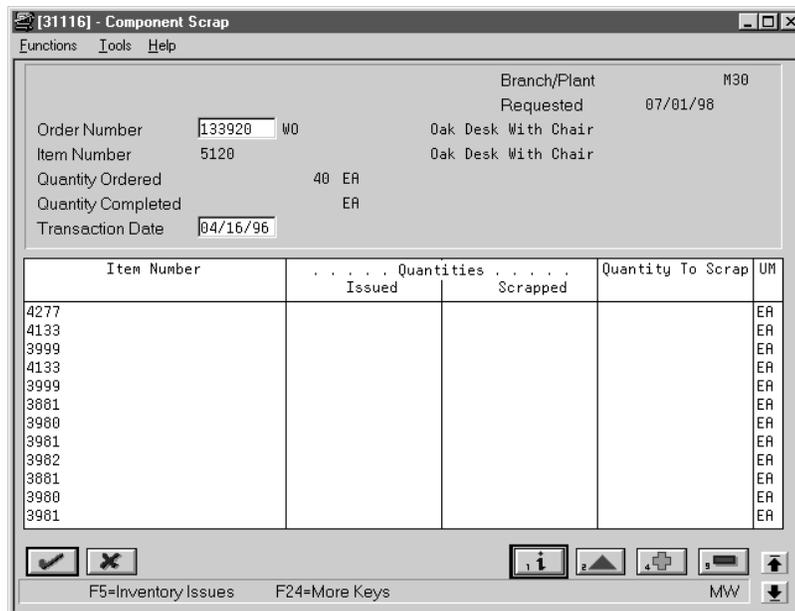
What You Should Know About

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



1. Complete the following fields:
 - Order Number
 - Transaction Date
 - Quantity To Scrap
2. Access the fold area.

Item Number	Quantities		Quantity To Scrap	UM
	Issued	Scrapped		
4277				EA
Reason Code	Explanation		Date	04/16/96
Description	FRAMING KIT, 30x60 DESK	Ordered	40	
Location	Lot	Br/Pl	M30	
4133				EA
Reason Code	Explanation		Date	04/16/96
Description	SIDE ASSV, 30x30 OAK DESK	Ordered	80	
Location	Lot	Br/Pl	M30	
3999				EA
Reason Code	Explanation		Date	04/16/96
Description	BACK, OAK, 30x60, DESK	Ordered	20	
Location	Lot	Br/Pl	M30	

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 for Component Scrap

DEFAULT FORMAT:

1. Enter a '1' for Item Number entry.
Blanks will default to Work Order
Number entry.

DEFAULT VALUES:

2. Item Ledger Transaction date.
(Blanks will default to the
current date).

3. Reason Code.

4. Enter the document type associated
with the Component Scrap
Transaction.

SERIAL NUMBER PROCESSING:

5. Enter the Document type used for
Serial Number Issues. If left blank
'IM' will default.



Exercises

See the exercises for this chapter.

Schedule Work Orders

Scheduling Work Orders

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.

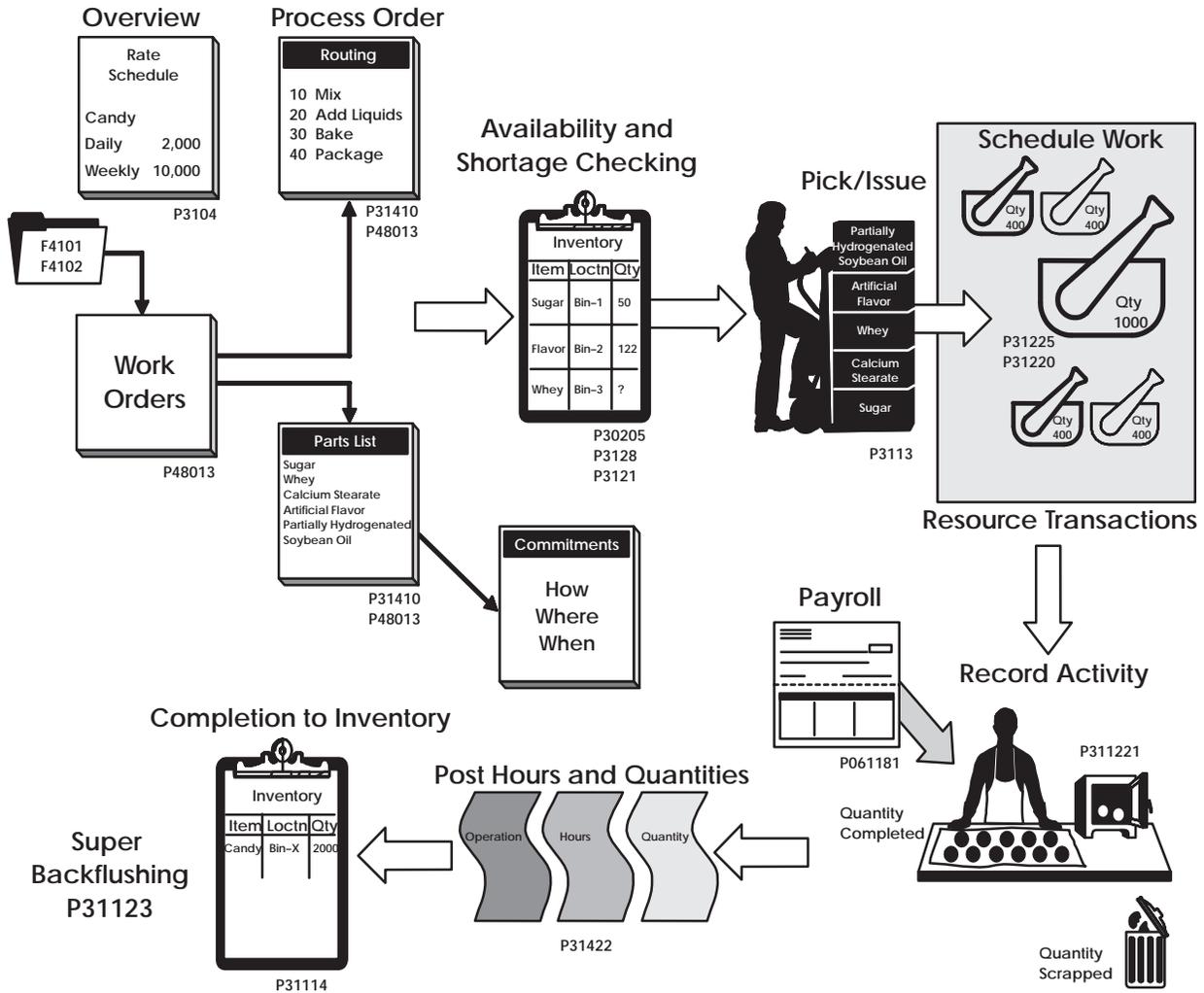
Scheduling work orders includes the following tasks:

- Reviewing work order information
- Revising work order information (optional)
- Reviewing the load on a work center, line, or cell
- Printing scheduling information for work centers (optional)

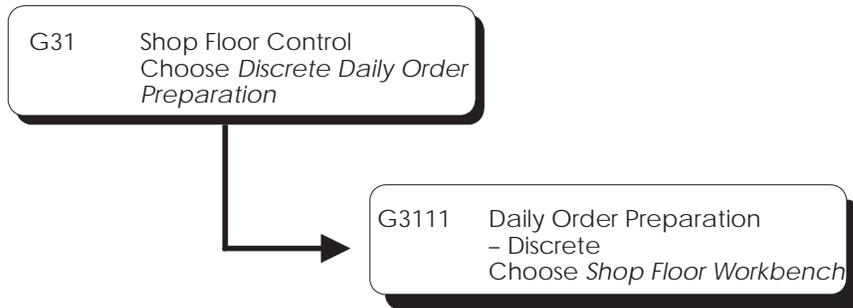
See Also

- *Appendix C – Leadtimes* for information on how the system calculates leadtime for a work order
- *Reviewing Material Information (P4021)*

Where in the Process Do You Schedule Work?



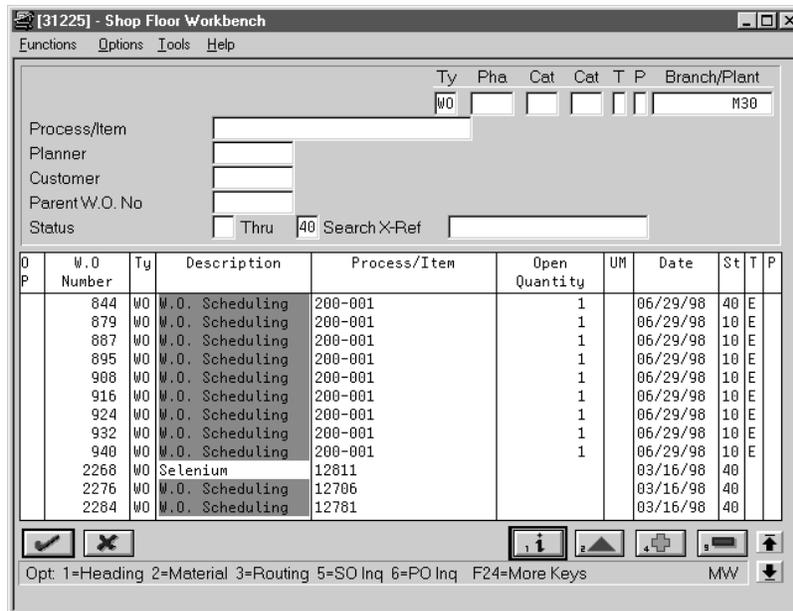
Reviewing Work Order Information



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.

► **To review work order information**

On Shop Floor Workbench



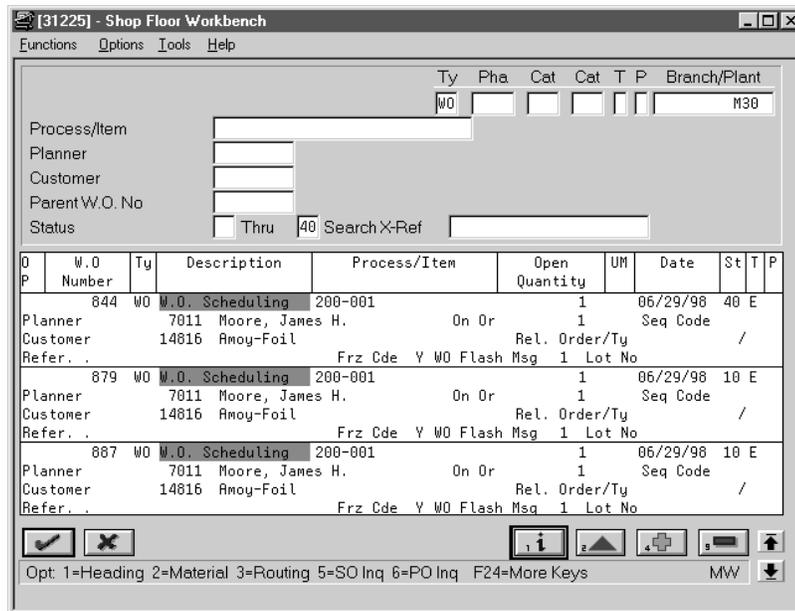
1. Complete the following field:

- Branch/Plant

2. Complete the following optional fields:

- Document Type
- Phase/Matter Code
- Category Code 1
- Category Code 2
- Work Order/ECO Type
- Work Order Priority
- Parent Item
- Planner
- Customer
- Parent Work Order Number
- Status From
- Status Through
- Search Cross Reference
- Priority Rating

3. Access the fold area.



4. Complete the following optional fields:

- Freeze Code Designation
- Type of Flash Message

Field	Explanation
Status Through	<p>Enter a status code that you want the system to use as an ending point for selecting work order information.</p> <p>There are three ways to enter the status code information:</p> <ul style="list-style-type: none"> • 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, enter 10 in the From field and leave the Through field blank to display all work orders with a status of 10 or more. • Enter only a Through code to view work orders ending with a particular status. For example, leave the From field blank and enter 40 in the Through field to display all work orders with a status of 40 or less.
Work Order Flash Message	<p>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.</p>

Revising Work Order Information

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 fold 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 for Shop Floor Workbench

PROGRAM VERSIONS:

1. Enter the Version of Sales Order Inquiry to be called. Default is ZJDE0001. _____
2. Enter the Version of Purchase Order Inquiry to be called. Default is ZJDE0001. _____
3. Enter the Version of Work Order Completions to be called. Default is ZJDE0001. _____
4. Enter the Version of Work Order Entry to be called. Default is ZJDE0001. _____
5. Enter the Version of Sales Order Entry to be called. Default is ZJDE0001. _____
6. Enter the Version of Purchase Order Entry to be called. Default is ZJDE0001. _____

DISPLAY OPTIONS:

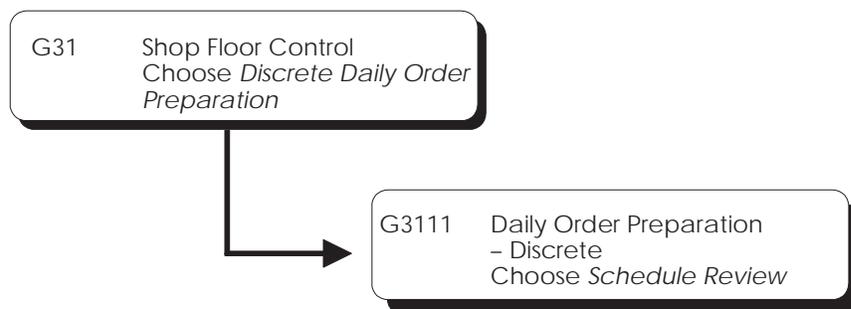
7. Enter a '1' to display Requested Date or enter a '2' to display Start Date. (Default is '1'). _____
8. Enter a '1' to sequence the records by Requested date. Enter a '2' to sequence the records by Start date. If left blank the sequence will be based on values for the customer, parent work order number, cross reference, item or planner fields. _____

DEFAULT VALUES:

9. Enter the default value for Category Code 1. _____
10. Enter the default value for Category Code 2. _____
11. Enter the default value for Category Code 3. _____
12. Enter the default value for Type. _____
13. Enter the default value for Priority. _____
14. Enter the default value for Planner Number. _____
15. Enter the default value for From Status. _____
16. Enter the default value for Thru Status. _____

17. Enter the default value for Item Number. _____
18. Enter the default value for Customer Number. _____
19. Enter the default value for Search X-Ref. _____
20. Enter the default Document Type. _____
- PROCESS MANUFACTURING PROCESSING:
21. Enter a '1' to automatically create the WO Routing Instructions when creating the WO Parts List on-line. _____
22. Enter a '1' to automatically create the WO Parts List when creating the WO Routing Instructions on-line. _____
- COMMITMENT AND SUBSTITUTE PROCESSING:
23. Enter commitment option for creating the WO Parts List on-line. _____
- Blank = Commit to Primary location
- '1' = Commit per Commitment Control in Mfg Constants (P3009)
- '2' = Same as '1', but use substitutes for shortages
- '3' = Same as '1', but only use substitutes if their quantity available can cover shortages
- '4' = Same as '1' but display substitute availability window when substitute qty available can cover shortage

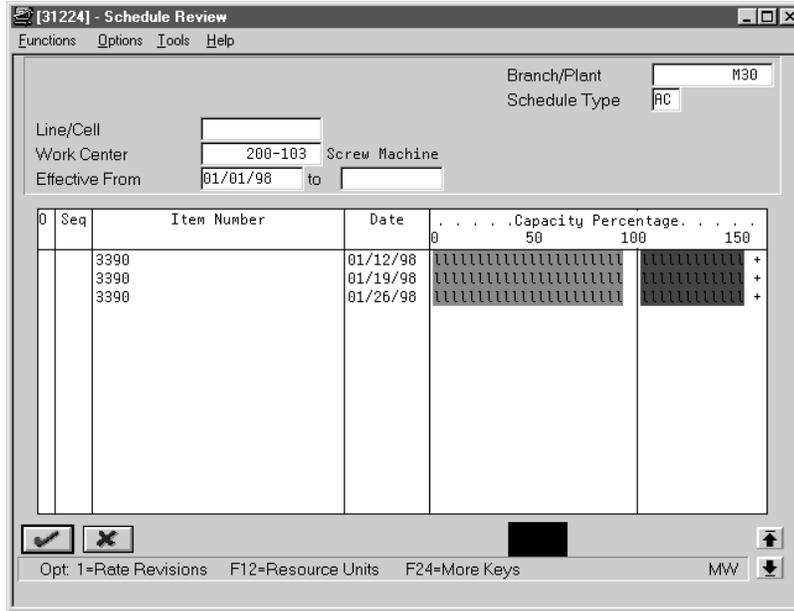
Reviewing the Load on a Work Center, Line, or Cell



After your work order is scheduled, you might need to review the work scheduled at either a work center or a line or cell. The system displays this information by item number at each operation sequence. You must set a processing option to display work order loads on this form.

► To review the load on a work center, line, or cell

On Schedule Review



1. Complete the following fields:
 - Branch/Plant
 - Schedule Type
 - Line/Cell or Work Center
2. Complete the following optional fields:
 - Effective From
 - Effective To
 - Sequence

Field	Explanation
Line/Cell or Work Center	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.
Quantity	This is the remaining quantity for an operation. The remaining quantity is calculated by subtracting the quantity completed from the standard quantity.

Processing Options for Scheduling Review

SCREEN DEFAULTS:

Enter the values to preload to the screen at initial inquiry. If left blank, no value will be preloaded.

- 1. Schedule Type. _____
- 2. Resource Unit of Measure _____

VERSIONS TO EXECUTE:

- 3. Enter the version of Rate Revisions to call. Default is 'ZJDE0001'. _____

DATE DISPLAY

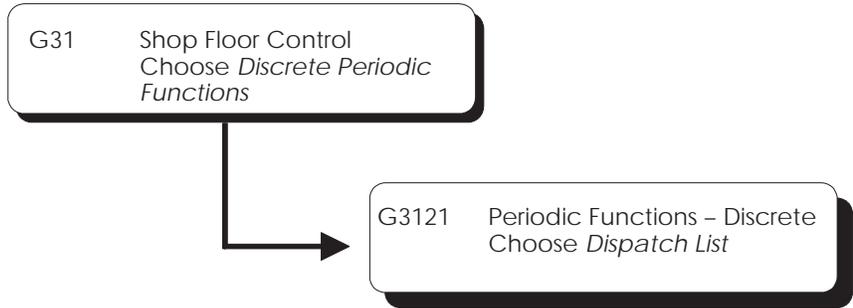
- 4. Enter one of the following for the subfile dates to display: _____
 - "1" = Monthly
 - "2" = Weekly
 - "3" = Daily
 The default is Daily ("3").

WORK ORDER PROCESSING:

- 5. Enter a '1' to include Work Order generated loads BEFORE Rate loads. Enter a '2' to include Work Order generated loads AFTER Rate loads. If left blank, no Work Order loads will be recognized. _____
- 6. Enter the operation status 'from' and 'to' values to use to select active operations to include.
 - a. From Status _____
 - b. Through Status. _____



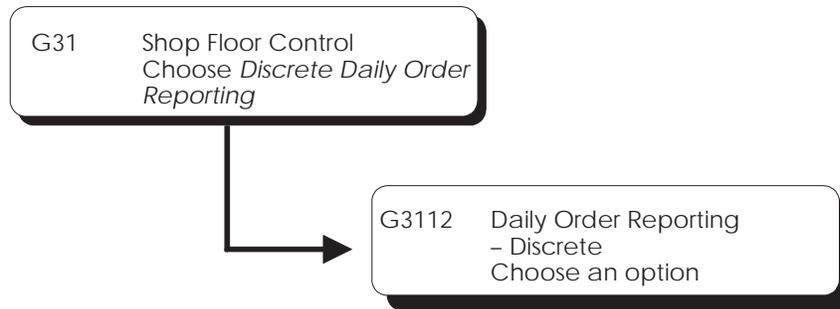
Printing Scheduling Information for Work Centers



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.

Work Unit	Oper Seq#	Order Number	WO Ty	T St	Op Y St	Related Order	TY	Start Date	Request Date	Remaining Machine	Remaining Labor	Remaining Setup	Quantity Remaining	UM		
MACH	2,00	164048	WM	99	Z			27.02.95	27.02.95		10,00		10			
MACH	2,00	164056	WM	99	Z			27.02.95	27.02.95		10,00		10			
MACH	2,00	164064	WM	98	6			27.02.95	27.02.95				0			
MACH	2,00	164072	WM	98	6			27.02.95	27.02.95				0			
MACH	2,00	164208	WM	40	6			27.02.95	27.02.95	10,00			1			
		Requested.											10,00	20,00		
MACH	2,00	16461	WM	98	6			28.02.95	28.02.95	10,00			1			
		Requested.											10,00			
MACH	2,00	164081	WM	30	6			02.03.95	02.03.95	10,00			1	EA		
MACH	2,00	16492	WM	98	6			02.03.95	02.03.95	10,00			1			
MACH	2,00	16493	WM	30	6			02.03.95	02.03.95	10,00			1			
		Requested.											30,00			
MACH	2,00	473	WM	30	6			07.03.95	07.03.95	10,00			1			
MACH	2,00	474	WM	30	6			07.03.95	07.03.95	10,00			1			
MACH	2,00	475	WM	30	6			07.03.95	07.03.95	10,00			1			
		Requested.											30,00			
MACH	2,00	164082	WO	10	5			03.04.95	03.04.95	10,00	5,00		1	EA		
		Requested.											10,00	5,00		
MACH	2,00	164136	WO	05	5			04.04.95	04.04.95	10,00	5,00		1			
		Requested.											10,00	5,00		
MACH	2,00	16479	WO	30	6			04.05.95	04.05.95	10,00			1	EA		
		Requested.											10,00			

Work with Hours and Quantities



Working with Hours and Quantities

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 J.D. Edwards 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 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 post them to the Manufacturing system for further tracking and cost accounting. You can review the hours and quantities either online or using a report.

Working with hours and quantities includes the following tasks:

- Entering hours and quantities manually
- Entering hours and quantities through payroll time entry (optional)
- Updating hours and quantities
- Reviewing the status of hours (optional)
- Reviewing the status of quantities (optional)
- Reviewing hours and quantities transactions (optional)
- Reviewing the status of operation quantities (optional)

What You Should Know About

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).

What You Should Know About Processing Options

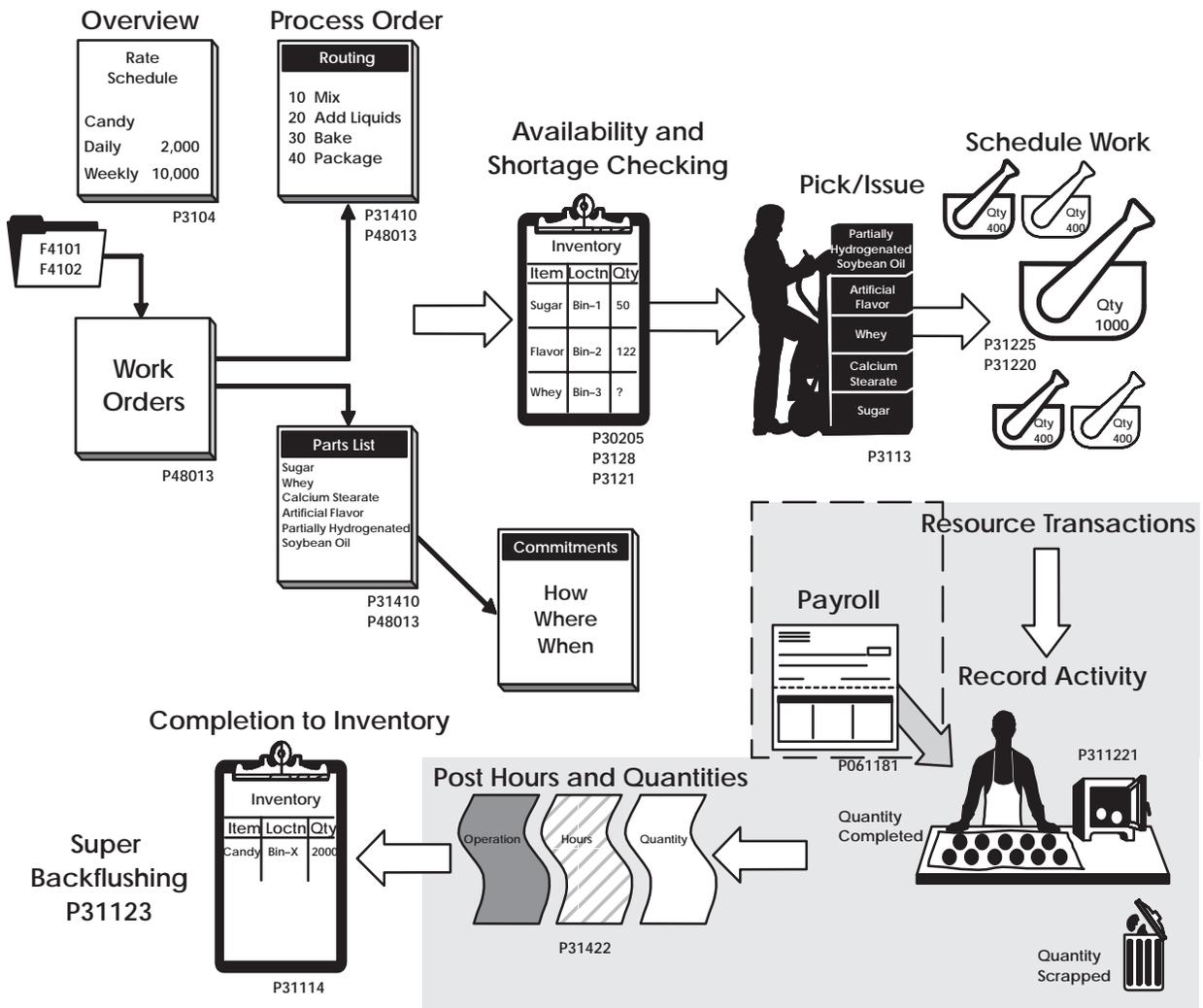
Quality Management Options (6, 7, and 8)

These processing options are not available.

See Also

- *Payroll Guide* for more information about the Payroll system

Where in the Process Do You Enter Hours and Quantities?



Discrete Manufacturing

Entering Hours and Quantities Manually

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 the following important information about entering hours and quantities:

- 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.

► To enter hours and quantities manually

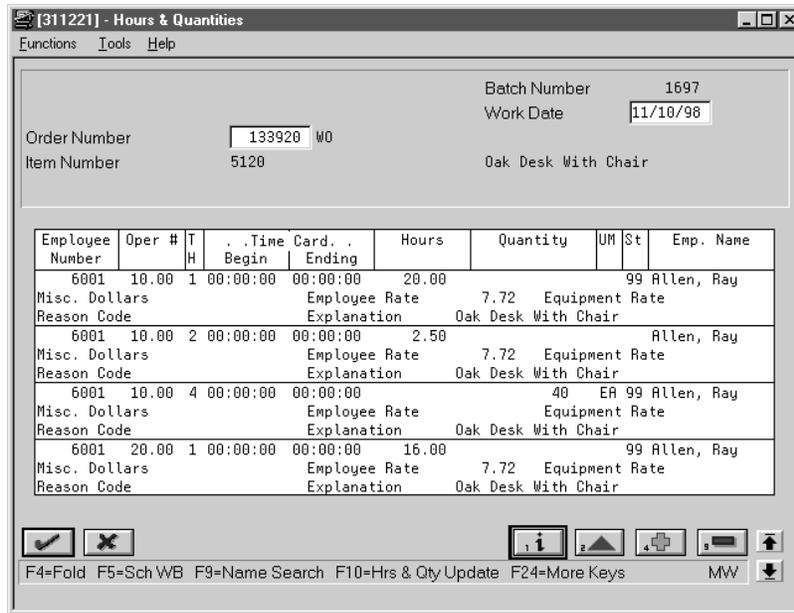
On Hours and Quantities – Order Number format

Employee Number	Oper #	T	H	. . .Time Card. .	Hours	Quantity	UM	St	Emp. Name
				Begin Ending					
6001	10.00	1		00:00:00 00:00:00	20.00			99	Allen, Ray
6001	10.00	2		00:00:00 00:00:00	2.50			99	Allen, Ray
6001	10.00	4		00:00:00 00:00:00		40	ER	99	Allen, Ray
6001	20.00	1		00:00:00 00:00:00	16.00			99	Allen, Ray
6001	20.00	4		00:00:00 00:00:00		40	ER	99	Allen, Ray
6001	30.00	1		00:00:00 00:00:00	15.20			99	Allen, Ray
6001	30.00	2		00:00:00 00:00:00	0.25			99	Allen, Ray
6001	30.00	4		00:00:00 00:00:00		40	ER	99	Allen, Ray
6001	40.00	1		00:00:00 00:00:00	7.20			99	Allen, Ray
6001	40.00	4		00:00:00 00:00:00		40	ER	99	Allen, Ray
6001	50.00	1		00:00:00 00:00:00	2.00			99	Allen, Ray
6001	50.00	4		00:00:00 00:00:00		40	ER	99	Allen, Ray

1. Complete the following fields:
 - Work Date
 - Order Number
 - Operation Sequence Number

- Type of Hours
- Hours
- Quantity
- Unit of Measure
- Status

2. Access the fold 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 that the transaction is to be posted to. 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
Operation Sequence Number	<p>In routings, used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, 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.</p> <p>In engineering change orders, used to sequence the assembly steps for the engineering change.</p> <p>Skip To fields allow you to enter an operation sequence that you want to begin the display of information.</p> <p>You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.</p> <p>In the process, the sequence number that produces the intermediate product.</p> <p>..... <i>Form-specific information</i></p> <p>This is the sequence number of the routing step on the work order. You must enter this number.</p>
Type of Hours	<p>A code to indicate the type of time entered. Valid codes are:</p> <ul style="list-style-type: none"> 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 Worked	<p>The number of hours associated with each transaction.</p>
Amount – Gross Pay	<p>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.</p> <p>When using Work Order Time Entry, use this field to record miscellaneous pay for an employee, such as piece rate bonus.</p>

Field	Explanation
Billing Rate – Equipment	<p>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:</p> <p style="margin-left: 40px;">Billing Rate = 200 100 Rate 1 (Ownership Component) 25 Rate 2 (Operating Component) 50 Rate 3 (Maintenance Component) 25 Rate 4 (Other Costs Component)</p> <p>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.</p> <p>NOTE: You are not required to use rate components.</p>
Explanation	A name or remark that describes an element in the J.D. Edwards systems.

Processing Options for Hours and Quantities

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.' If left blank, the verification is not performed. _____
5. Enter a '1' to block employee rate being written to screen. Leave blank to show employee rates. _____

QUALITY MANAGEMENT OPTIONS:

6. Enter the Status Code for update to the Work Order if the Test Fails. _____
7. Enter the Status Code for update to the Work Order Operation if the Test Fails. _____
8. Enter the Status Code for update to the Lot if the Test Fails. _____

Entering Hours and Quantities through 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 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 J.D. Edwards Payroll system is set up and running

What You Should Know About

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 the Hours and Quantities form. Before the data is updated, you can locate it and change it on either entry form, as necessary.

▶ To record hours and quantities through payroll time entry

On Payroll Time Entry

Pay	Order No	Op Seq	Time Card	Hours	Units	UM	St	Ovr/Rt	0
			Begin Ending						
H 904				40.00				Secured	
H 903									
H 903									

Complete the following fields:

- Employee
- Date
- Order Number

- Operation Sequence Number
- Type
- Beginning Hours
- Ending Hours
- Units
- Unit of Measure
- Status
- Hourly Rate

Processing Options for Payroll Time Entry

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 _____
Doubletime - B _____
Triplettime - 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). _____

-----MANUFACTURING INFORMATION-----

1. Enter the Document Type associated with Shop Floor Activity. _____
2. Enter the Status Code beyond which Shop Floor Activity cannot be entered _____
3. Enter the Version of Shop Floor Hours and Quantity Entry to call. _____
(Default is version ZJDE0001)

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 post 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 posting you use depends on how you enter the transaction data:

- If you use Super Backflush to enter hours and quantities, the quantities transactions are posted real time. However, you must run the Hours and Quantities Update to post the hours. Super Backflush enters the transactions for you at the point in the routing that you specify.
- 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

On Hours and Quantities

The screenshot shows a window titled "[311221] - Hours & Quantities" with a menu bar (Functions, Tools, Help). The form contains the following fields:

- Order Number: 133920 WO
- Item Number: 5120
- Batch Number: 1697
- Work Date: 11/10/98
- Item Description: Oak Desk With Chair

Below these fields is a table with the following columns: Employee Number, Oper #, T, H, .Time Card. (Begin, Ending), Hours, Quantity, UM, St, and Emp. Name.

Employee Number	Oper #	T	H	.Time Card. (Begin)	(Ending)	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1		00:00:00	00:00:00	20.00			99	Allen, Ray
6001	10.00	2		00:00:00	00:00:00	2.50				Allen, Ray
6001	10.00	4		00:00:00	00:00:00		40	ER	99	Allen, Ray
6001	20.00	1		00:00:00	00:00:00	16.00				Allen, Ray
6001	20.00	4		00:00:00	00:00:00		40	ER	99	Allen, Ray
6001	30.00	1		00:00:00	00:00:00	15.20			99	Allen, Ray
6001	30.00	2		00:00:00	00:00:00	0.25				Allen, Ray
6001	30.00	4		00:00:00	00:00:00		40	ER	99	Allen, Ray
6001	40.00	1		00:00:00	00:00:00	7.20				Allen, Ray
6001	40.00	4		00:00:00	00:00:00		40	ER	99	Allen, Ray
6001	50.00	1		00:00:00	00:00:00	2.00			99	Allen, Ray
6001	50.00	4		00:00:00	00:00:00		40	ER	99	Allen, Ray

At the bottom of the window, there are several icons and a keyboard shortcut legend: F4=Fold, F5=Sch WB, F9=Name Search, F10=Hrs & Qty Update, F24=More Keys, and MW.

Complete the following field:

- Order Number/Employee Number

The system only posts 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

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

Reviewing the Status of Hours

Review work order information before you enter hours in the system. You can display the actual machine, labor, and setup hours entered for each operation associated with a work order. You can also view the standard and variance values for the hours, along with the status code, which can be updated for the operation.

Before You Begin

- Before entries will display on the status form, you must do one of the following:
 - Enter the hours on the Hours and Quantities form and run the Hours and Quantities Update
 - Use the online update function to post the entries

What You Should Know About

Resources

The header information on this form comes from the Work Order Master table (F4801). The detail information comes from the Shop Floor Control Routing Instructions table (F3112).

▶ **To review the status of hours**

On Order Hours Status

Branch/Plant M30
Requested 07/01/98

Order Number 133920 W0
Item Number 5120

Oak Desk With Chair
Oak Desk With Chair

Oper Seq#	Description	Machine	Hours			St
			Machine	Labor	Setup	
10.00	Assemble frame	A				
20.00	Assemble sides/back to frame	A				
30.00	Attach drawer slide kits	A				
40.00	Attach top	A				
50.00	Finish	A				
60.00	Package with chair	A				

F4=Standards F5=Order Completion F15=Work Order Qty's F24=More Keys MW

Complete the following field:

- Order Number

Field	Explanation
Machine Hours	This is the actual machine time in hours recorded against the work order.
Labor Hours	This is the actual labor time in hours recorded for the work order.
Setup Hours	The actual time in hours of setup labor recorded against the work order operation.
Amount – Variance 1, 2, and 3	The variance amount, hours, or quantity associated with an operation.

Reviewing the Status of Quantities

You can display the quantities entered against the operations scheduled for a work order, including the actual quantity ordered, completed, and scrapped for each operation. You can also view the standard and variance values, along with the status code, which can be updated for the operation.

Before You Begin

- Before entries will display on the status form, you must do one of the following:
 - Enter the hours on the Hours and Quantities form and run the Hours and Quantities Update
 - Use the online update function to post the entries

What You Should Know About

Resources

The header information on this form comes from the Work Order Master table (F4801). The detail information comes from the Shop Floor Control Routing Instructions table (F3112).

▶ **To review the status of quantities**

On Order Quantities Status

[31122] - Order Quantities Status

Functions Tools Help

Order Number 133920 W0 Branch/Plant M30
 Item Number 5120 Requested 07/01/98
 Quantity Ordered 40 EA Oak Desk With Chair
 Quantity Completed Oak Desk With Chair
 Quantity Scrapped
 Projected Completion 40
 Projected Order Yield % 100.00

Oper #	Description		Quantities		UM	St	Percent Yield
			Completed	Scrap			
10.00	Assemble frame	A			EA		
20.00	Assemble sides/back to frame	A			EA		
30.00	Attach drawer slide kits	A			EA		
40.00	Attach top	A			EA		
50.00	Finish	A			EA		
60.00	Package with chair	A			EA		

F4=Standards F5=Order Completion F15=Work Order Hours F24=More Keys MW

Complete the following field:

- Order Number

Field	Explanation
Quantity – Projected Completion	The projected order completion quantity is calculated by totaling all “quantities at operation” for each non-completed operation, and adding the “quantity completed” at the last operation. In Process Manufacturing, when an intermediate is defined for an operation, the “quantity at operation” will first be expressed in terms of the end item’s quantity and unit of measure. The system does this by multiplying the “quantity at operation” by the ratio of “standard operation quantity” over “work order quantity”.
Percent – Projected Order Yield	The system calculates the projected order yield percent by dividing the projected completion quantity by the order quantity and multiplying the result by 100.
Amount – Standard 3	The standard amount, hours, or quantity associated with an operation.
Units – Quantity at Operation	The quantity that is physically at the step at the work center at that time.
Percent – Percent Yield	The percentage of the planned amount that has been completed.

Reviewing Hours and Quantities Transactions

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 post them to the system. Before they are posted, the transactions can be changed and updated. After you post them, they cannot be changed.

31322		J.D. Edwards & Company										Page	2
		Hours & Quantities Journal										Date	03.16.98
W.O. Number	Ty	W.O. Description	Employee Number	Employee Name	Op Seq	Work Date	T H	Hourly Rate	Machine	Labor	Setup	Quantity 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	06.15.98	1	7.72		12,00			EA
				Order Number						12,00			
2057 WO OAK SHELF UNIT					25.00	12.30.98	4					100	EA
				Order Number									

Reviewing the Status of Operation Quantities

You can display the routing instructions, operation quantity, quantity completed, and quantity scrapped for a work order, including the projected quantity complete and projected yield for each operation and for the entire order. Processing options allow you to define the default From and Through statuses.

► **To review the status of operation quantities**

On Operation Quantities Status

Oper #	St	Description	Quantities			UM
			At Operation	Completed	Scrapped	
10.00		Assemble frame	50			EA
20.00		Assemble sides/back to frame				EA
30.00		Attach drawer slide kits				EA
40.00		Attach top				EA
50.00		Finish				EA
60.00		Package with chair				EA

Complete the following fields:

- Branch/Plant
- Item Number

Processing Options for Operation Quantities Status

DEFAULT STATUS INFORMATION:

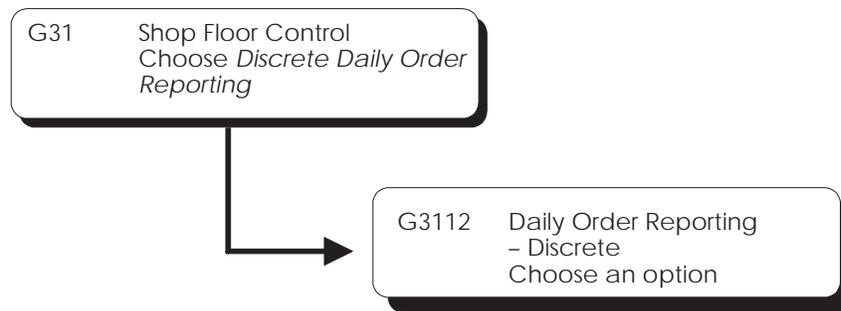
1. Enter the From Status
2. Enter the Thru Status



Exercises

See the exercises for this chapter.

Complete Work Orders



Completing Work Orders

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

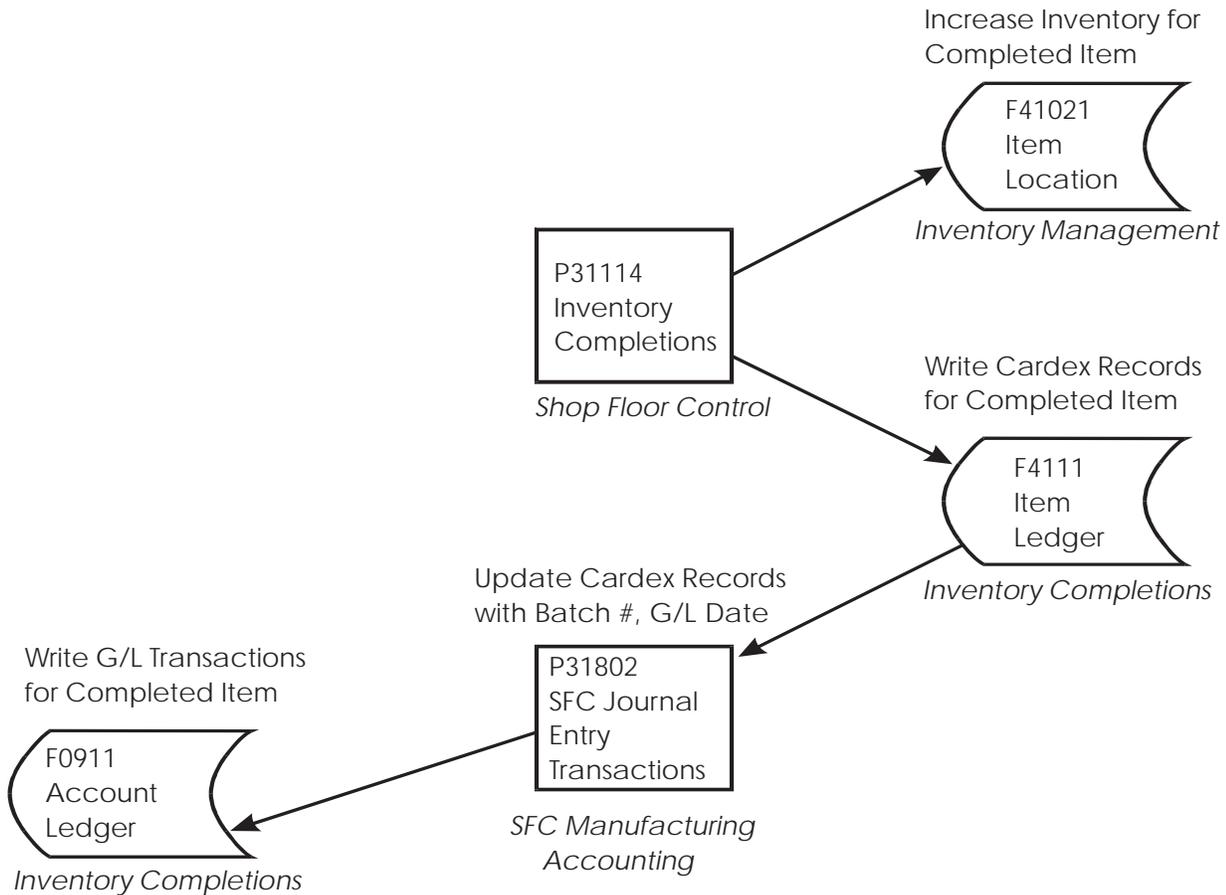
When you choose to report completions depends on your production cycle time. Depending on the nature of the manufactured item, you can report partial completions or report total completions in one transaction. Reporting partial completions also can indicate the stage or progress that is being made on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

The following graphic displays the tables updated after completions.



Completing work orders includes the following tasks:

- Completing a work order without backflushing
- Completing a work order through backflush (optional)
- Completing partial quantities on a work order (optional)
- Processing a work order through super backflush (optional)
- Processing a work order using quantity at operation (optional)
- Completing a work order with serialized components (optional)

What You Should Know About

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 fold 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.

See Also

- *Understanding Lot Processing*

Completing a Work Order without Backflushing

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

► **To complete a work order without backflushing**

On Partial Completion

DescriptionQuantities. . . .		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock			EA	06/01/98		
Branch/Plt	M30	Locn		LSN		
Memo Lot 1	Reason Code					
Memo Lot 2						

1. Complete the following fields:
 - Order Number
 - Quantity Complete
 - Quantity Scrapped
 - Date Complete
 - Status
 - Lot Status

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

Field	Explanation
Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>

Processing Options for Work Order Inventory Completion

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 after a successful inventory completion execution. _____
4. Enter the DREAM Writer version of Work Order Issues to be called. If left blank, version 'ZJDE0001' will be used. _____

WORK ORDER HEADER:

5. Enter the Status Code for update to the Work Order Header. (Optional) _____

EDIT INFORMATION:

6. Enter the Status Code beyond which Completions may not be made. _____

ITEM LOCATION PROCESSING:

7. Enter the lot hold codes (up to 5) to allow completions to, or enter a '*' to allow completions to all held lots. Blanks will not allow completions 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.

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SALES ORDER OPTIONS (CONT):

9. Enter a '1' to update the Sales Detail Fields (Lot Number & Location) as depicted in Option 8. If left blank, Sales Detail will not be updated.
 - * Processing Option 9 must be used in conjunction with Processing Option 8. If Option 8 is blank, 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.

SALES ORDER OPTIONS (CONT):

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, version 'ZJDE0001' will be used.

SHORTAGE WORKBENCH:

14. Enter the DREAM Writer version of Shortage Workbench to be called. If left blank, version '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.

ITEM LOT OPTIONS:

16. Enter a '1' to allow overriding the lot number upon completion.

WORK ORDER ENTRY:

17. Enter the DREAM Writer version of Work Order Entry to be called. If left blank, version 'ZJDE0001' will be used.

PROCESS MANUFACTURING OPTIONS:

18. Enter '1' to allow unplanned co- and by-product completions.
19. Enter '1' to issue ingredients for each Co- or By-Product separately. Blanks will consolidate ingredient issues.

WAREHOUSE PROCESSING:

20. Enter the Directed Putaway mode:

' ' : No Directed Putaway Requests
 '1' : Request Putaway only
 '2' : Request Putaway and process
 using the subsystem

21. If processing putaway requests through the subsystem, enter the DREAM Writer version to be used. If blank, ZJDE0001 is used. (See Form ID P46171).

SERIAL NUMBER PROCESSING:

22. Enter a '1' to allow replenishing of a LSN that exists in the system. If left blank, no duplicate LSNs will be allowed in the system.
23. Enter a '1' to default to multiple associations format window. If left blank, single format will default.
24. Enter the Document Type used for Serial Number Issues. If left blank 'IM' will default.

QUALITY MANAGEMENT OPTIONS:

25. Enter the Status Code for update to the Work Order if the Test Fails.
26. Enter the Status Code for update to the Work Order Operations if the Test Fails.
27. Enter the Status Code for update to the Lot if the Test Fails.

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 the system to display backordered sales orders 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

What You Should Know About

Issuing material from locations not listed on the parts list

After you complete the work order by accepting the records displayed on the Completion with Backflush form, do the following:

- Access the Multiple Locations window
- Move commitments
- Issue the material

Locating the status of the receipts routing

Use the Status Inquiry form to locate the status of the receipts routing. You can access the Operation Movement Detail form to view the details of a step. You can set a processing option in the Completions program to initiate receipts routing.

See Also

- *Setting Up Automatic Accounting Instructions (P40950)* in the *Inventory Management Guide*
- *Working with Items in Receipt Routing* in the *Purchase Order Management Guide*

▶ To complete a work order

On Completion with Backflush

[31114] - Completion with Backflush

Functions Tools Help

Branch/Plant M30
Requested 09/08/98

Order Number 65066 W0 Oak Desk With Chair
Item Number 5120 Oak Desk With Chair
Quantity Ordered 40 EA
Quantity Completed
Quantity Scrapped
Current Status Code 40

Description	Quantities		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock	50		EA	09/07/98		
Branch/Plt M30	Loch			LSN		
Memo Lot 1	Reason Code			LSN Status		
Memo Lot 2						

F16=Multi Return Location Search F10=Scheduling Workbench F24=More Keys MW

1. Complete the following fields:
 - Order Number
 - Quantity Complete
 - Quantity Scrapped
 - Date Complete
 - Status
 - Lot Status

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

The Work Order Inventory Issues form appears.

Op Seq	Qty Ordered	Qty Issued	Issues	UM
1 4133	20.00	160	200	EA
1 3999	20.00	40	50	EA
1 4218	40.00	40	50	EA
1 2111	50.00	80	100	GA
1 5666	60.00	40	50	EA

- On Work Order Inventory Issues, issue the material by accepting the records displayed.

Field	Explanation
Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>

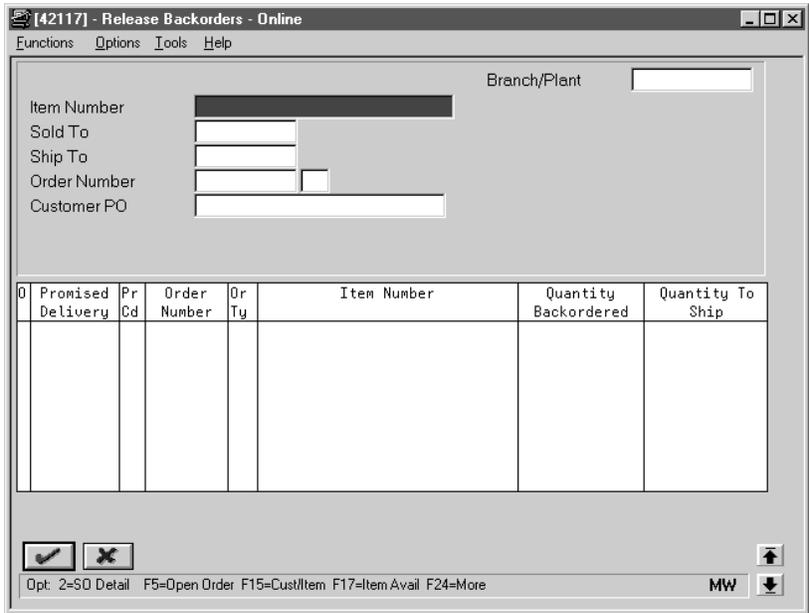
► **To release sales backorders during completions**

The J.D. Edwards Sales Order Management system identifies items that are being manufactured as backordered. 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.



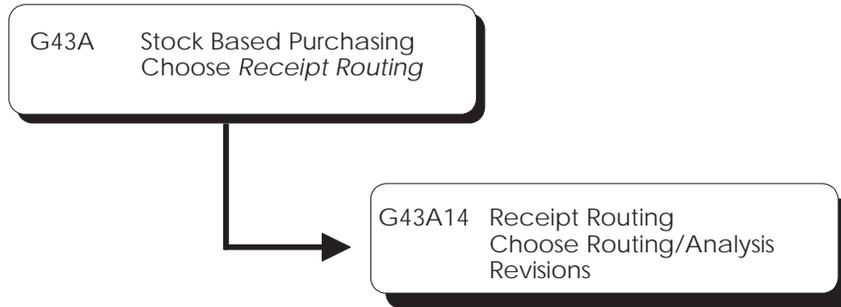
2. On Back Order Release, review the following default information:

- 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**



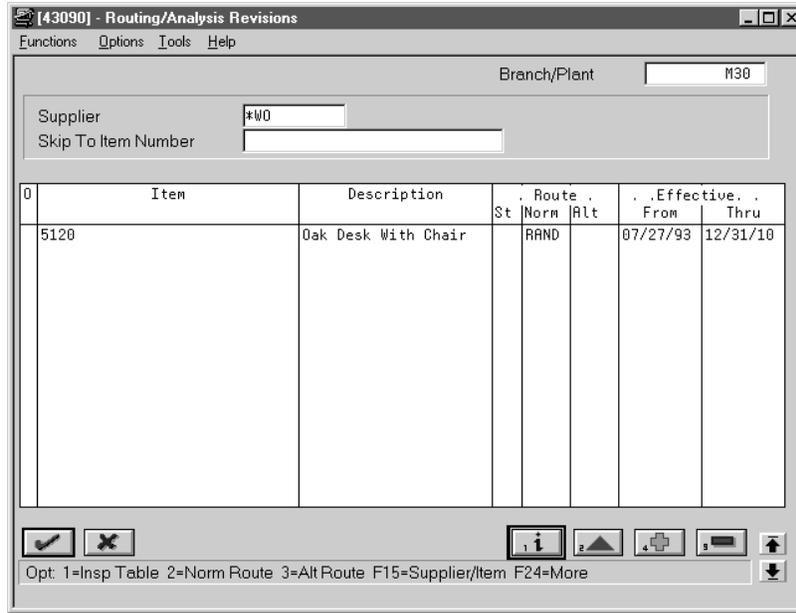
You set up a receipt route in the Purchase Order Management system by specifying a unique receipts routing code name in the user defined codes (system 43, type RC) and an operation name in user defined codes (system 43, type OC). You enter a Y in any of the update fields on Receipt Routing Definition 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 in order for the system to assign the last operation to a route. The system automatically 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 Purchase Order Management system using 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.

On Routing/Analysis Revisions



Complete the following fields:

- Normal Route
- Effective From
- Effective Through

Processing Options for Back Order Release

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. _____
5. Enter a '1' to display kit component lines. If left blank, kit component lines will not display. _____
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. _____
7. Enter a '1' to display Customer Information. If left blank, Item Information will display. _____

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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. _____
10. Enter a '1' to allow Backorders to be released when Quantity to Ship is greater than Quantity on Backorder. _____
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:

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. _____

Completing Partial Quantities on a Work Order

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.

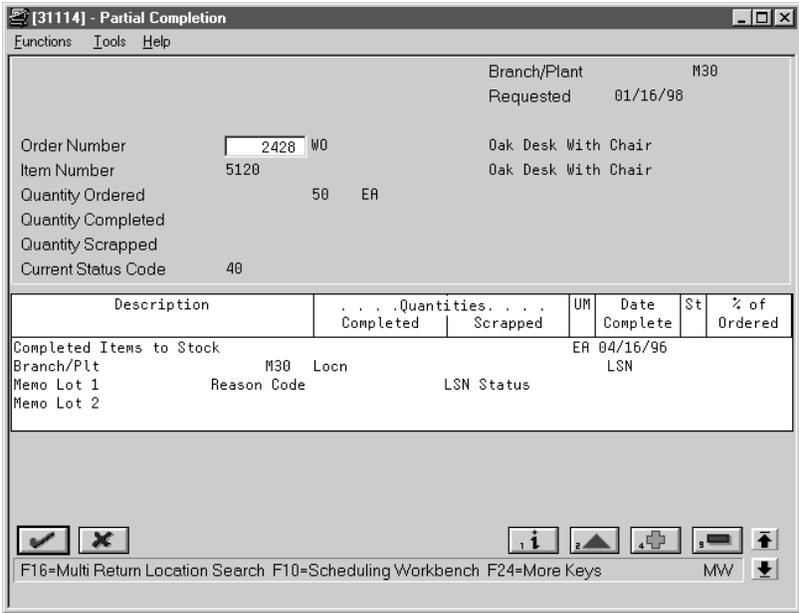
The form displays completed and scrapped quantities and percent complete information for a work order.

Complete the following tasks:

- Complete partial quantities on a work order
- Complete a work order for multiple locations (optional)

▶ To complete partial quantities on a work order

On Partial Completion



1. Complete the following fields:
 - Order Number
 - Completed Quantities
 - Scrapped Quantities
2. Complete the following optional field:
 - Date Complete
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

 **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 field:
 - Date Complete
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
5. Choose Select Multiple Locations.



In order to access this window, a Completed Quantity must be entered on the completions form.

: Quantity	Location	Lot or	Brn/Plt	Available
10	10		N30	10
	20		N30	
			N30	

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

Completing a full work order Use the Full Completion menu selection to complete all quantities for all materials on a work order.

Processing a Work Order through Super Backflush

Super Backflush is a DREAM Writer batch program that creates backflush transactions against a work order 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 at the start date of the work order, 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 ingredients to the work order
- Record hours and quantities against the work order 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 header
- Indicate a status code beyond which entries to work orders cannot be made
- Store hours and quantities in related tables 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

What You Should Know About

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.

See Also

- *Reviewing the Status of Hours* and *Reviewing the Status of Quantities* for information on the status of hours and quantities for work orders

▶ **To process a work order through super backflush**

On Super Backflush

The screenshot shows a window titled "[31123] - Super Backflush" with a menu bar (Functions, Tools, Help) and a data entry area. The data entry area includes fields for Order Number (65103), W.O. (5120), Branch/Plant (M30), Transaction Date (04/26/96), and Requested date (12/15/98). Below this is a table with columns: Work Center, Oper #, Description, Employee, Qty Comp, Qty Scrap, UM, and St.

Work Center	Oper #	Description	Employee	Qty Comp	Qty Scrap	UM	St
200-204	10.00	Assemble frame				EA	
200-204	20.00	Assemble sides/back				EA	
200-204	30.00	Attach drawer slide				EA	
200-204	40.00	Attach top				EA	
200-202	50.00	Finish				EA	
200-204	60.00	Package with chair				EA	

At the bottom of the window, there are several icons and function keys: F8=W.O. Header, F15=Scheduling Workbench, and F24=More Keys.

1. Complete the following fields:
 - Order Number
 - Transaction Date
 - Employee
 - Quantity Complete
 - Status
2. Access the fold area.

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[31123] - Super Backflush

Functions Tools Help

Order Number WO 5120 Branch/Plant M30
 Oak Desk With Chair Requested 12/15/98
 Transaction Date Qty Ordered 40 EA
 Qty Complete
 Qty Scrapped

Work Center	Oper #	Description	Employee	Qty Comp	Qty Scrap	UM	St
200-204	10.00	Assemble frame				EA	
Pay Point Code	0	Pay Point Status	Standard Quantity		40	EA	
			Qty at Operation		40		
			Total Completed				
Total Scrapped							
200-204	20.00	Assemble sides/back				EA	
Pay Point Code	B	Pay Point Status	Standard Quantity		40	EA	
			Qty at Operation				
			Total Completed				
Total Scrapped							
200-204	30.00	Attach drawer slide				EA	
Pay Point Code	0	Pay Point Status	Standard Quantity		40	EA	
			Qty at Operation				
			Total Completed				
Total Scrapped							

F8=W.O. Header F15=Scheduling Workbench F24=More Keys

3. Complete the following optional field:

- Pay Point Status

The Work Order Inventory Issues form appears.

[31113] - Work Order Inventory Issues

Functions Options Tools Help

Branch/Plant M30
 Requested 12/15/98

Order Number WO Oak Desk With Chair
 Item Number 5120 ak Desk With Chair
 Quantity Ordered 40 EA Co/By
 Issue Material for EA VC0008
 Order Date VC0006

Op	Item	Op Seq	St	Qty Ordered	Qty Issued	Issues	UM
1	4133	20.00		160	160		EA
1	3999	20.00		40	40		EA
1	4218	40.00		40		40	EA

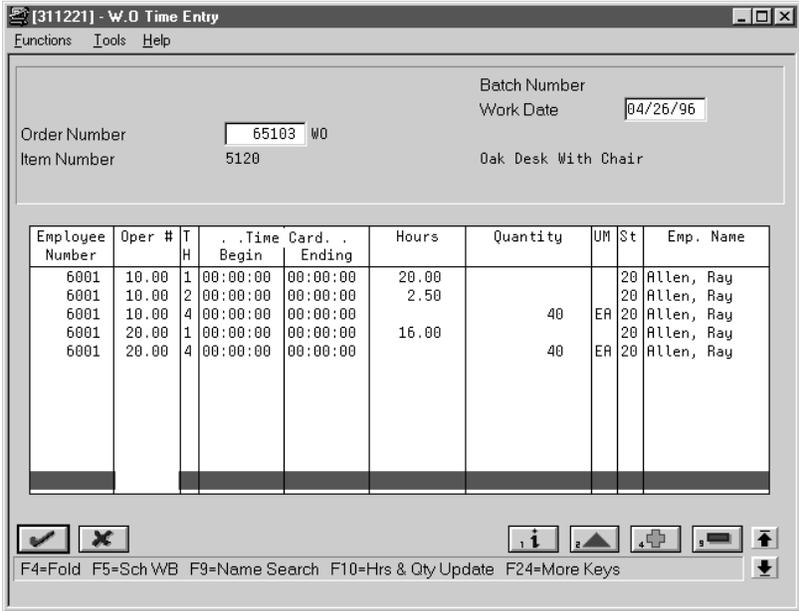
Opt 1=Process Issue 4=Multi-Location F5=Issues Inquiry F24=More Keys MW

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 Hours and Quantities form appears.



5. On Hours and Quantities, 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.

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 P Partially complete C Completed
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. <i>Form-specific information</i> If you leave this field blank, the system uses the Work Order Header table to update the quantities in the Item Location table in the primary unit of measure.

Processing Options for Super Backflush

STATUS CODES DEFAULTS:

NOTE - Blanks will not update the Status Code.

1. Enter the default Operation Status Code for Partial Completions. _____
2. Enter the default Operation Status Code for Full Completions. _____
3. Enter the Status Code for update to the Work Order Header. _____
4. Enter the default Material Status Code for Issues. _____

SHOP FLOOR ACTIVITY INFORMATION:

5. Enter the Version of the Hours and Quantity Program to call. _____
If left blank, a blind Hours and Quantities execution will be performed.

BLIND HOURS AND QUANTITIES ENTRY:

6. Enter the Document Type associated with Shop Floor Activity. _____

WORK ORDER ISSUES INFORMATION:

7. Enter the Version of the Material Issues Program to call. _____
If left blank, a blind execution of Work Order Inventory Issues will be performed.

BLIND WORK ORDER ISSUES:

8. Enter the Document Type associated with a Work Order Issue. _____
9. Enter the acceptable lot hold codes (up to 5) for inventory issues, or enter '*' for issues to all held lots. Blanks will not allow issues. _____

WORK ORDER COMPLETION INFORMATION:

10. Enter the Version of the Work Order Completions Program to call. _____
If left blank, a blind Work Order Completions execution will be performed.

BLIND WORK ORDER COMPLETIONS:

11. Enter the Document Type associated with an Inventory Completion. _____
12. Enter the Document Type associated with an Inventory Scrap. _____

EDIT INFORMATION:

13. Enter the Status Code beyond which Backflushing cannot be performed. _____

ITEM SALES HISTORY INFORMATION:

14. Enter a '1' if you wish blind issues to effect Item Sales History (F4115). _____

WAREHOUSE PROCESSING:

15. Enter the Directed Putaway mode. _____
' ' : No Directed Putaway requests
'1' : Request Putaway only.
'2' : Request Putaway and process using the subsystem.

16. If processing putaway requests through the subsystem, enter the DREAM Writer version to be used. If blank, ZJDE0001 is used. (See Form ID P46171) _____

QUANTITY COMPLETION CONTROL:

17. 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 OPTIONS:

18. Enter the Status Code for update to the Work Order if the Test Fails. _____

19. Enter the Status Code for update to the Work Order Operation if the Test Fails. _____

20. Enter the Status Code for update to the Lot if the Test Fails. _____

What You Should Know About Processing Options

Quality Management Options (18, 19, and 20) for Super Backflush These processing options are not available.

Quality Management Options (6, 7, and 8) for Hours and Quantities These processing options are not available.

Processing Options for Hours & Quantities

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.' If left blank, the verification is not performed. _____
5. Enter a '1' to block employee rate being written to screen. Leave blank to show employee rates. _____

QUALITY MANAGEMENT OPTIONS:

6. Enter the Status Code for update to the Work Order if the Test Fails. _____
7. Enter the Status Code for update to the Work Order Operation if the Test Fails. _____
8. Enter the Status Code for update to the Lot if the Test Fails. _____

Processing a Work Order Using Quantity at Operation

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 automatically 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 edits the quantity at operation as though the transactions were updated in the Work Order Routing table. The system uses the previously entered data to edit 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.

What You Should Know About

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 operation at that operation plus the quantity at operation for all previous non-pay points since the last pay point.

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

What You Should Know About Processing Options

Quality Management Options (18, 19, and 20) for Super Backflush

These processing options are not available.

Quality Management Options (6, 7, and 8) for Hours and Quantities

These processing options are not available.

To complete a work order using quantity at operation

On Hours and Quantities

[311221] - Hours & Quantities

Functions Tools Help

Order Number 133647 W0
Item Number 333

Batch Number 1718
Work Date 09/08/98
ORAK SHELF UNIT
ORAK SHELF UNIT

Employee Number	Oper #	T	H	Time Card Begin	Time Card Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1		00:00:00	00:00:00	1.00				Allen, Ray
6001	10.00	4		00:00:00	00:00:00		10	EA		Allen, Ray

F4=Fold F5=Sch WB F9=Name Search F10=Hrs & Qty Update F24=More Keys

Discrete Manufacturing

1. Complete the following fields:
 - Work Date
 - Order Number
 - Employee Number
 - Operation Number
 - Type Hours
 - Hours
 - Quantity Complete
2. Access the fold area.

Shop Floor Control Discrete Manufacturing

[311221] - Hours & Quantities

Functions Tools Help

Batch Number 1718
Work Date 09/08/98

Order Number 133647 W0
Item Number 333 ORK SHELF UNIT

Employee Number	Oper #	T	Time Card . . H Begin Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1	00:00:00 00:00:00	1.00				Allen, Ray
Misc. Dollars				Employee Rate	7.72	Equipment Rate		
Reason Code				Explanation	ORK SHELF UNIT			
6001	10.00	4	00:00:00 00:00:00		10	EA		Allen, Ray
Misc. Dollars				Employee Rate	Equipment Rate			
Reason Code				Explanation	ORK SHELF UNIT			
Misc. Dollars				Employee Rate	Equipment Rate			
Reason Code				Explanation				
Misc. Dollars				Employee Rate	Equipment Rate			
Reason Code				Explanation				

F4=Fold F5=Sch WB F9=Name Search F10=Hrs & Qty Update F24=More Keys MW

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:

[311221] - Hours & Quantities

Functions Tools Help

Batch Number 1718
Work Date 09/08/98

Order Number 133647 W0
Item Number 333 ORK SHELF UNIT

Employee Number	Oper #	T	Time Card . . H Begin Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1	00:00:00 00:00:00	1.00				Allen, Ray
6001	10.00	4	00:00:00 00:00:00		10	EA		Allen, Ray
6001	30	1		1	20	EA		

F4=Fold F5=Sch WB F9=Name Search F10=Hrs & Qty Update F24=More Keys

Completing a Work Order with Serialized Components

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.

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.



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

Completing non-serialized components

If you complete work orders with non-serialized components you cannot assign serial numbers to the assemblies at completion.



To complete a work order with serialized components

On Full Completion

[31114] - Full Completion

Functions Tools Help

Branch/Plant M30
Requested 01/07/98

Order Number 129541 W0 CRT Chassis Subassembly
Item Number 2434 CRT Chassis Subassembly

Quantity Ordered 10 EA
Quantity Completed 20
Quantity Scrapped
Current Status Code 90

Description	Quantities		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock				EA	04/16/96	90 200.000
Branch/Plt M30	Locn			LSN		
Memo Lot 1	Reason Code			LSN Status		
Memo Lot 2						

F16=Multi Return Location Search F10=Scheduling Workbench F24=More Keys MW

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

The system displays Associate Issued Component LSN.

[3107] - Associate Issued Component LSN

Functions Options Tools Help

Branch M30
Order Number 129541 W0
Sequence No 1
LSN Status Completed

Qty Ordered 10 EA
Qty Completed 20
Qty Scrapped
Status 90
Item Number 2434 CRT Chassis Subassembly

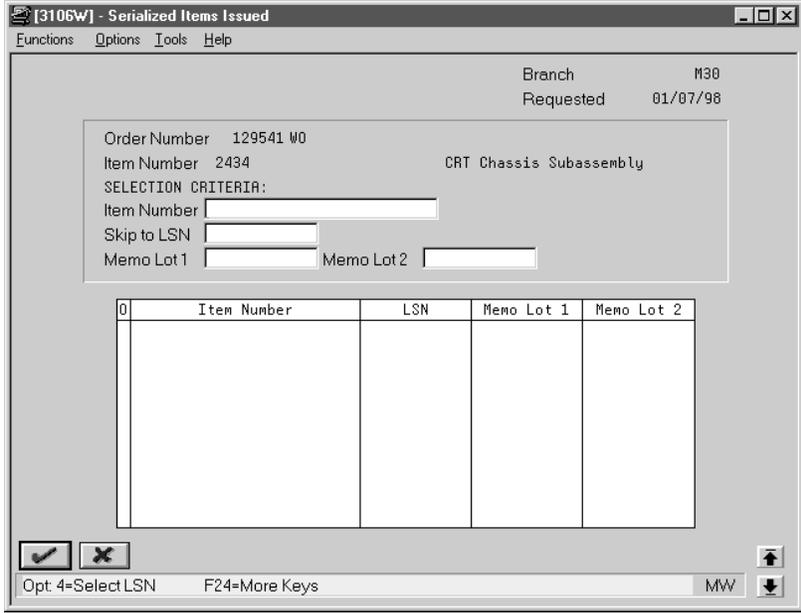
Assembly Information

LSN 9602290000 Memo Lot 1 LY-34
Location Memo Lot 2

0	Component Number	LSN	Memo Lot 1	Memo Lot 2
	2954	55219337	MB-223	

Sel: 9=Delete F15=Issued LSNs F17=Parent LSN F24=More Keys

3. On Associate Issued Component LSN, Choose Issued LSNs.



4. On Serialized Items Issued, select the components you want to associate to the serialized assembly.

The system closes the Serialized Items Issued window.

5. On Associate Issued Component LSN, accept the record.
6. On Full Completion, accept the record.

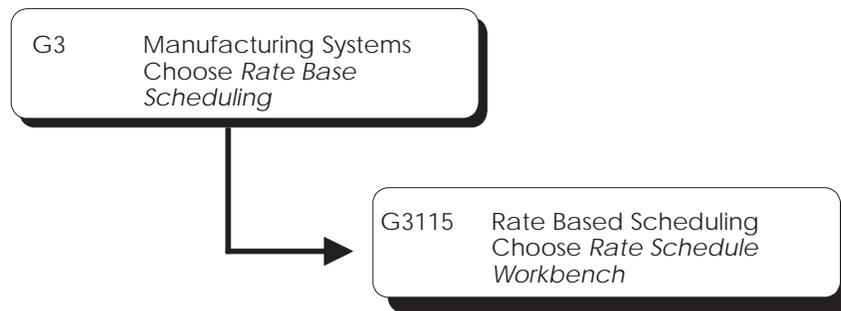
Field	Explanation
Lot	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.
Memo Lot 1	A higher classification or grouping of serial number or lot processed items, maintained within the lot master (F4108).
Memo Lot 2	A higher classification or grouping of memo lot 1 maintained within the lot master (F4108).



Exercises

See the exercises for this chapter.

Complete Rate Schedules



Completing Rate Schedules

Use Rate Schedule Workbench to record rate completions, issue parts, modify the rate priority, and record hours and quantities for the rate. Depending on how you set the processing options, the Rate Base Inventory Issues and Hours and Quantities forms appear as you record rate completions.

Completing a rate schedule consists of:

- Completing a rate
- Entering hours and quantities information (optional)
- Issuing material from a single location (optional)
- Issuing material from multiple locations (optional)
- Closing a rate schedule (optional)

When you perform a completion, the system records the inventory as received and updates all required Inventory Management system tables. The quantity completed is added to the quantity on hand for the location you indicate.

You can set a processing option from Rate Schedule Workbench to record transactions in summary or detail format in the Work Order Time Transactions table (F31122). If you leave this processing option blank, the system records the transactions in summary format.

This program's processing options allow you to perform a range of functions. To organize and separate the functions, you can set up several DREAM Writer versions with different data selection and processing option values to accomplish different tasks. For example, you could set one option to perform completions and one option to perform issues.

What You Should Know About

Issuing rate base inventory

The Rate Base Inventory Issues form is used to backflush material for a rate schedule. It functions similarly to the Work Order Inventory Issues form. When you use the Rate Base Inventory Issues form:

- The quantity to be issued is extended by the parent order quantity.
- Any quantity can be overridden, if needed.
- Type Code logic for standard issues is used, just as with regular work order issues.
- The system can automatically issue material if you de-activate the processing option that calls the window. All functions are performed exactly the same, except that the form does not appear.

Warehouse management processing

If you process transactions for a branch/plant for which the Warehouse Control field in the Branch/Plant Constants – Pg 1 form is set to yes, the Location Detail window displays. You can select location detail records for processing. See *Setting Up Branch/Plant Constants* in the *Warehouse Management Guide* for more information about warehouse control.

Adding and deleting rate schedules

You cannot add or delete a rate schedule from this form. Instead, you must use the Enter/Change Rate Schedule form.

Before You Begin

- Set the applicable processing options to complete each task

Branch/Plant M30
Schedule Type AC
Item Number 3390
W/Center or Line
Effective From to

Item Number	Sched. Qty	UM	Quantities		UM	Date Complete	Seq
			Completed	Scrapped			
3390	800	EA			EA	04/16/96	0

Opt: 1=Rates 2=Hours & Quantities 3=Issues F5=Item Ledger F24=More Keys MW

► **To complete a rate**

When you have the correct information about the rate in the workbench, you can record the completion.

On Rate Schedule Workbench

1. Complete the following fields:
 - Branch/Plant
 - Schedule Type
 - Item Number
 - Quantities Completed
 - Quantities Scrapped
 - Date Completed
2. Access the fold area.

3. Complete the following optional fields:

- Lot Number
- Status
- Employee/Group

Field	Explanation
Unit of Measure	<p>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.</p> <p>..... <i>Form-specific information</i></p> <p>If you leave this field blank, the system uses unit of measure from the Rate Schedule Master table to update the quantities in the Item Location table in the primary unit of measure.</p>
Date Complete	<p>The date that an order was entered into the system. This date determines which effective level is used for inventory pricing.</p> <p>..... <i>Form-specific information</i></p> <p>This value must be within the effective from and to dates of the schedule.</p>

What You Should Know About

Using the generic text window

Access the Work Order Component Master Text window to create a separate generic text entry for each schedule. This window enables you to provide more information and specific instructions per schedule. Any modifications you make to the text will not impact the text that was originally attached to the bill of material.

If you are issuing inventory against the schedule for the first time, the system does not automatically attach the text from the bill of material. Therefore, you need to change and locate the schedule again to have the system attach the text. Then, you can access the Work Order Component Master Text window.

Although this window is titled Work Order Component Master Text, you can use this window for work order and rate schedule information.

You can also access the User Information and Text Model Selection windows to view user and date updates, as well as model selections.

▶ To enter hours and quantities information

When you perform a completion on the Rate Schedule Workbench form, you can enter hours and quantities for the rate schedule. However, you must set the processing option to access hours and quantities.

On Rate Schedule Workbench

1. Choose Hour and Quantities for the appropriate item.

0	Work Center	Oper #	Description	Employee	Completed	Scrapped	UM
	200-101	10.00	Cut leg to size/mill		10	10	ER
	200-102	20.00	Attach leg cap		10		ER
	200-103	30.00	Inspect		10		ER

Trans.Date 01/30/98

Opt. 1=Transaction History F3=Exit(No Trans) F4=Details F24=More

2. On Hours and Quantities Entry, revise the information in the following fields as needed:
 - Employee
 - Completed
 - Scrapped
 - Unit of Measure
3. Access the fold area.

Work Center	Oper #	Description	Employee	Completed	Scrapped	UM
200-101	10.00	Cut leg to size/mill		10	10	EA
Qtys to Date		UM Hours to Date	Standard	Actual		
Completed	20	EA	3.00 Setup	3.00	3.00	
Scrapped			2.00 Labor	4.00	4.00	
			Machine			
200-102	20.00	Attach leg cap		10		EA
Qtys to Date		UM Hours to Date	Standard	Actual		
Completed	20	EA	2.00 Setup	2.00	2.00	
Scrapped			2.00 Labor			
			Machine			

Opt 1=Transaction History F3=Exit(No Trans) F4=Details F24=More

4. Revise the information in the following fields as needed:
 - Actual Setup
 - Actual Labor
 - Actual Machine

What You Should Know About

Using the generic text window

Access the Work Order Routing Operation Master Text window to create a separate generic text entry for each schedule. This window enables you to provide more information and specific instructions per schedule. Any modifications you make to the text will not impact the text that was originally attached to the item's routing.

Although this window is titled Work Order Routing Operation Master Text, you can use this window for work order and rate schedule information.

You can also access the User Information and Text Model Selection windows to view user and date updates, as well as model selections.

► **To issue material from a single location**

When you perform a completion on the Rate Schedule Workbench form, you can issue materials for the rate schedule.

On Rate Schedule Workbench

1. Access Rate Base Inventory Issues.

The screenshot shows a window titled '[31143] - Rate Base Inventory Issues'. The window contains several input fields and a table. The input fields are:

- Branch/Plant: M30
- Trans Date: 04/29/96
- Work Center: 200-100
- Machine Shop: LEG OAK, 1.5x1.5x30
- Parent Item: 3390
- Transaction Qty: EA
- Issue Material for: 1 EA
- Skip to Op Seq: []

The table below shows the items and their issues:

Item	Description	Std Qty	Issues	UM
2611	OAK BOARD, 2x2x10		1	EA
2417	LEG CAP, 1.5x1.5x1.5,		1	EA

The window also has a menu bar (Functions, Options, Tools, Help) and a status bar at the bottom with icons and text: Opt: 4=Multi-Location Issue F5=Issues Inquiry F24=More Keys MW

2. On Rate Base Inventory Issues, revise the information in the following fields as needed:
 - Issue Material for
 - Unit of Measure
 - Item
 - Issues
 - Unit of Measure
3. Access the fold area.

[31143] - Rate Base Inventory Issues

Functions Options Tools Help

Branch/Plant M30
 Trans Date 04/29/96
 Work Center 200-100
 Machine Shop
 Parent Item 3390
 LEG OAK, 1.5x1.5x30
 Transaction Qty EA
 Issue Material for 1 EA
 Skip to Op Seq

0	Item	Description	Std Qty	Issues	UM
	2611	OAK BOARD, 2x2x10		1	EA
Br/Pl	M30	Location	Lot	Seq	10.00
From/Thru Grade	-	From/Thru Potency	-		
	2417	LEG CAP, 1.5x1.5x1.5,		1	EA
Br/Pl	M30	Location	Lot	Seq	20.00
From/Thru Grade	-	From/Thru Potency	-		
Br/Pl		Location	Lot	Seq	
From/Thru Grade	-	From/Thru Potency	-		
Br/Pl		Location	Lot	Seq	
From/Thru Grade	-	From/Thru Potency	-		

Opt: 4=Multi-Location Issue F5=Issues Inquiry F24=More Keys MW

4. Revise the information in the following fields as needed:

- Branch/Plant
- Location
- Lot



You must enter lot numbers manually for lot controlled components.

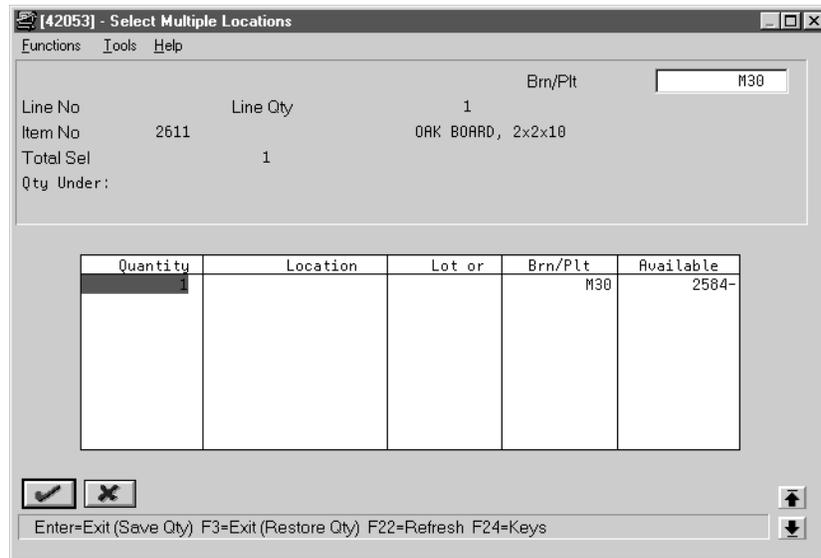
Field	Explanation
Unit of Measure	<p>A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.</p> <p>..... <i>Form-specific information</i></p> <p>If you leave this field blank, the system uses unit of measure from the Bill of Material Master table to update the quantities in the Item Location table in the primary unit of measure.</p>
Lot	<p>A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.</p> <p>..... <i>Form-specific information</i></p> <p>For lot-controlled components, the lot numbers must be manually entered.</p>

► **To issue material from multiple locations**

When you perform a completion on the Rate Schedule Workbench form, and you issue materials for the rate schedule, you can specify quantities to issue from different locations.

On Rate Schedule Workbench

1. Access Select Multiple Locations.



2. On Select Multiple Locations, complete the following fields:
 - Quantity
 - Location
 - Lot
 - Branch/Plant

Field	Explanation
Available Quantity	The quantity available can be on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up on Branch/Plant Constants form.

▶ To close a rate schedule

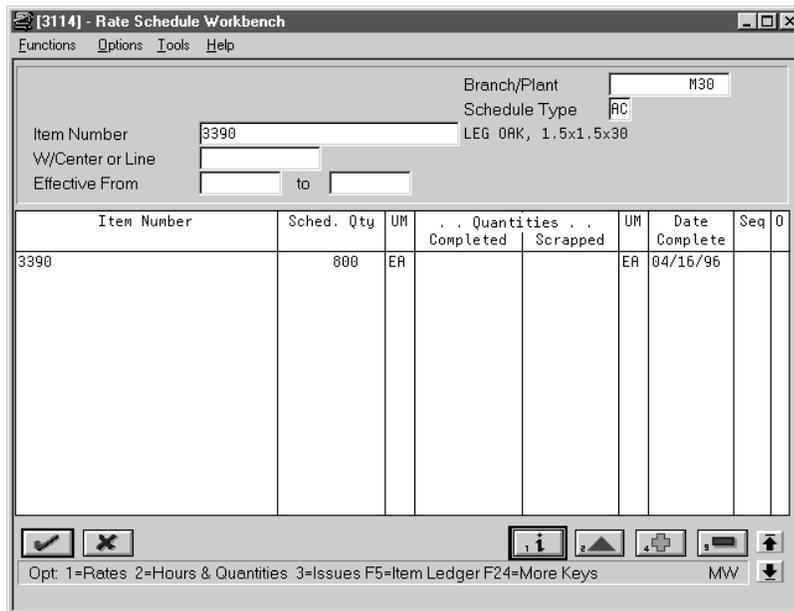
In addition to active rate schedules, the system stores the following:

- Rate schedules no longer in effect
- Rate schedules that will be in effect in the future
- Rate schedules that are closed

When you close a rate schedule, the system identifies the closed rate schedule as inactive. However, the schedule is retained for your reference or future use. For example, you might close and retain rate schedules for sales or promotional periods of products, or for unusual or seasonal fluctuations in the market.

Currently, you cannot delete rate schedules from the Rate Schedule Master table (F3104). You can close a rate schedule from the Rate Schedule Workbench program. And, in Rate Schedule Revisions, you have the option of viewing all schedules or only active schedules.

On Rate Schedule Workbench



Use the Close selection for the rate you want to close.

Processing Options for Rate Base Inventory Issues

UPDATE INFORMATION:

1. Enter the Document Type associated with an Inventory Issue. _____

INQUIRY INFORMATION:

2. Enter a '1' to display only Inventory Interface items. _____
(Blanks will display all items.)

EDIT INFORMATION:

3. Enter a '1' to give an error if the quantity on hand is negative. _____
(Blanks will not give an error.)

ITEM SALES HISTORY INFORMATION

4. Enter a '1' if you wish issues to effect Item Sales History (F4115). _____

HELD LOTS:

5. Enter the acceptable lot hold codes (up to 5) for inventory issues, or enter '*' for issues to all held lots. Blanks will not allow issues. _____

OPERATION SEQUENCE:

6. Enter a '1' to display operations that 'Equal' the entered Operation Sequence only. If left blank, the value will be used as a 'Skip To'. _____

Processing Options for Rate Schedule Workbench

INTERACTIVE/BLIND EXECUTION:

1. Enter the version of Inventory Issues to call. If left blank, a blind execution of Inventory Issues will be performed. _____
2. Enter a '1' to call the Hours & Qty Entry window. If left blank, a blind execution of Hours & Qty entry will be performed. _____

DOCUMENT TYPES:

3. Enter the Document Type associated with Inventory Completions. _____
4. Enter the Document Type associated with Inventory Scrap. _____
5. Enter the Document Type associated with Inventory Issues. _____

VERSIONS TO EXECUTE:

Enter the Dream Writer version to use for each program listed. If left blank, version ZJDE0001 will be used.

6. Rate Schedule Revisions (P3104) _____
7. Schedule Load Review (P31224) _____

Shop Floor Control Discrete Manufacturing

BLIND ISSUES:

8. Enter a '1' to process only
Inventory Interface items.
(Blanks will process all items). _____

9. Enter the acceptable lot hold codes
(up to 5) for inventory issues, or
enter '*' for issues to all held
lots. Blanks will not allow issues. _____

ITEM SALES HISTORY INFORMATION:

10. Enter a '1' if you wish blind
issues to effect Item Sales
History (F4115). _____

PRIMARY LOCATION DEFAULT:

11. Enter a '1' to default the item's
primary location information for
completions. If left blank, no
default location will be loaded. _____

SCREEN DEFAULTS:

Enter the values to preload to the
screen at initial inquiry. If left
blank, no value will be preloaded.

12. Schedule Type _____
13. Employee Number _____

OPTIONAL TRANSACTION HISTORY:

14. Enter a '1' to write transaction
details to the Hours and Quantities
file (F31122). If left blank, only
summary information is retained. _____

PROCESS MANUFACTURING OPTIONS:

15. Enter a '1' to allow unplanned
Co- and By-product completions. _____

16. Enter a '1' to issue ingredients
for each co-/by-product separately.
Blanks will consolidate issues. _____

WAREHOUSE PROCESSING:

17. Enter the Directed Putaway mode:
' ' : No Directed Putaway Requests
'1' : Request Putaway only
'2' : Request Putaway and process
using the subsystem _____

18. If processing putaway requests
through the subsystem, enter the
DREAM Writer version to be used.
If blank, ZJDE0001 is used.
(See Form ID P46171). _____

GENERIC TEXT PROCESSING:

19. Enter a '1' to copy generic text to
components in Inventory Issues. _____

20. Enter a '1' to copy generic text to
operations in Hours and Quantity
Entry. _____

QUALITY MANAGEMENT OPTIONS:

21. Enter the Status Code for update to the Lot if the Test fails.

Test Yourself: Managing Schedules

1. List three functions you can perform using Rate Schedule Workbench.

Mark the following statements true or false. For those statements that are false, change them to make them true.

2. From the Rate Schedule Workbench, you can create rates for an item. True / False
3. The system automatically issues all inventory for the rate unless you enter a DREAM Writer version of Inventory Issues (P3113) in the processing options. True / False
4. Manufacturing leadtime is the total amount of time required to produce an item including the purchase leadtime. True / False

The answers to this Test Yourself are in *Appendix B*.

Revise the Status of a Work Order

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:

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.

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 LSN master record when a work order for a serialized parent is purged.

Revising the status of a work order consists of:

- Changing the status of a work order to “closed”
- Purging a work order

What You Should Know About

Reporting quantities

If an order is in process, J.D. Edwards recommends that you report completed and scrapped quantities against it before you delete it.

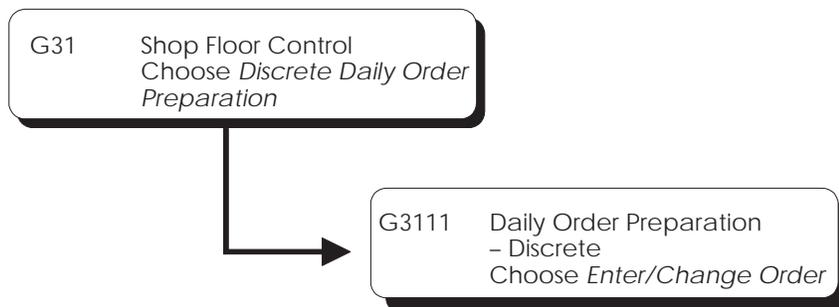
Deleting an order

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.

Changing the Status of a Work Order to “Closed”



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

The screenshot shows a window titled "[48013] - Enter/Change Order" with a menu bar (Functions, Tools, Help) and a grid of input fields. The fields are organized into two columns. The left column includes: Item Number (4218), Description (OAK DESK TOP 30 x 60), Status Comment, Bill Type (M), Routing Type (M), Type, Status (10), Priority, Category Code 1, 2, and 3, Reference, Planner (9200 Dobson, Jane), Supervisor, Customer, and Remarks (OAK DESK TOP 30 x 60). The right column includes: Order Number (123721), Requested (07/07/98), Qty Ordered (20), Qty Completed, Qty Scrapped, Orderw/Shrink (21), Branch/Plant (M30), Lot Number, Charge to CC (M30), Cost Code, Start Date (07/01/98), W.O. Date (04/12/95), Completed, Parent W.O. No, Revision Level, Freeze Code, and Associated SO. At the bottom, there are function key shortcuts: F5=Detail, F6=Parts List, F8=Routing, F15=Address, F24=More, and a MW button.

Discrete Manufacturing

Complete the following fields:

- Order Number
- Status

Processing Options for Enter/Change Order

BACKSCHEDULING INFORMATION:

1. Enter the Unit of Measure Code _____

RECALCULATION OPTIONS:

2. Enter a '1' to automatically recalculate Parts List and Routing dates, hours and quantities. _____

ITEM LOCATION VALIDATION:

3. Enter a '1' to validate for existing Branch/Item record. _____

CHARGE TO BUSINESS UNIT DEFAULT:

4. 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:

5. Enter the version of Bill Availability to be called. _____

Shop Floor Control Discrete Manufacturing

Default is ZJDE0001.

DEFAULT PROCESSING:

6. Enter defaults for the following:

- a. Document Type (Default is 'WO') _____
- b. Type (Optional) _____
- c. Priority (Optional) _____
- d. Beginning Status (Optional) _____

6. (CONTINUED)

Enter default values for the following:

- e. Category Code 1 (Optional) _____
- f. Category Code 2 (Optional) _____
- g. Category Code 3 (Optional) _____

Or enter Item Branch Class Code fields to retrieve default values.

- h. Category Code 1 (Optional) _____
- i. Category Code 2 (Optional) _____
- j. Category Code 3 (Optional) _____

SALES ORDER HOLD CODE:

7. Enter the Hold Code for the related sales order if the work order quantity or date changes. Blanks will not update the sales order. _____

PURCHASE ORDER HOLD CODE:

8. Enter the Hold Code for the related purchase order if the work order quantity or date changes. Blanks will not update the purchase order. Note- The purchase order will be updated only if the work order routings are recalculated. _____

FIELD DISPLAY:

9. Enter a '1' by the following fields to activate them:
a. Bill Type _____
b. Routing Type _____

PROCESS MANUFACTURING PROCESSING:

10. Enter a '1' to create the Resource List records for Co-/By-Products when a process work order is entered. If left blank, the Co-/By-Product resource list records will be created when the ingredients list is created. _____

INTERACTIVE BILL/ROUTING ATTACHMENT:

11. Enter a '1' to automatically create the WO Routing Instructions when creating the WO Parts List on-line. _____

12. Enter a '1' to automatically create the WO Parts List when creating the WO Routing Instructions on-line. _____

COMMITMENT AND SUBSTITUTE PROCESSING:

13. Enter commitment option for creating the WO Parts List on-line. _____
Blank - Commit to primary location
1 - Commit per Commitment Control

- in Mfg Constants (P3009)
- 2 - Same as '1', but use substitutes for shortages
- 3 - Same as '1', but display substitute availability window when substitute qty available can cover shortage

ECO PROCESSING:

- 14. Enter the version of the ECO header to call from Revisions Window (P30BREV). If left blank, version ZJDE0001 will be used. _____

SERIAL NUMBER PROCESSING:

- 15. Enter the version of Assign Serial Numbers to call. If left blank, version ZJDE0001 will be used. _____

PRIOR REVISIONS:

- 16. Enter a '1' to permit attaching parts lists at prior revision levels. If left blank, prior revision levels will not be used. _____

WAREHOUSE PROCESSING:

- 17. Enter the request processing mode
 ' ' = No pick requests
 '1' = Generate requests only
 '2' = Generate requests and process using the subsystem

- 18. If processing pick requests using the subsystem, enter the DREAM Writer version to use. If blank, XJDE0002 is used.
 (See Form ID P46171) _____

- 19. Enter the default staging location for moving goods out of the warehouse. The parts picked from the warehouse are staged at this location prior to use within manufacturing. (F1=Location Window) _____

- 20. 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. This option only applies to parts without work center locations. _____

QUALITY MANAGEMENT PROCESSING:

- 21. Enter a '1' to attach the Work Order/Routing tests on-line. _____

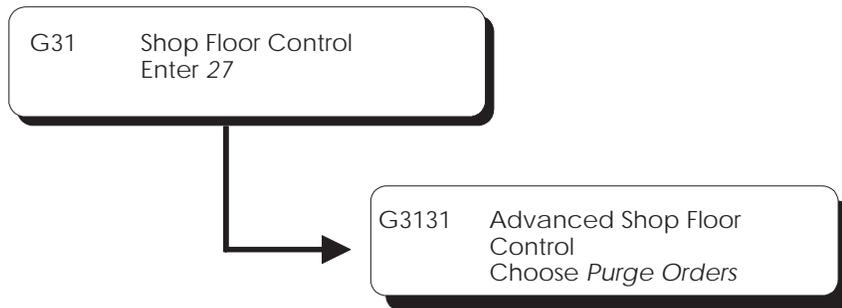
GENERIC TEXT COPY OPTIONS:

- 22. Enter a '1' to copy component generic text to the parts list. _____
- 23. Enter a '1' to copy the operation's generic text to the work order routing. _____

OBSOLETE ITEMS:

24. Enter the cross reference code for retrieving item replacements for obsolete items.

Purging a Work Order



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 *Product Costing and Manufacturing Accounting Guide* for information on how to complete the accounting.

What You Should Know About

Naming saved purged records

Set the processing options to save the records you purge in a special purge library. The system names this library JDE 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 OPNQRYP, 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 OPNQRYP

If you use OPNQRYP 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 for Purge Orders

Enter a '1' to save the purged records to a special purge library. (Default of blanks will NOT save any purged records.) _____

Enter a '1' to reorganize the purged file. (Default of blanks will NOT reorganize the file.) _____

Review Information

Reviewing Information

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.

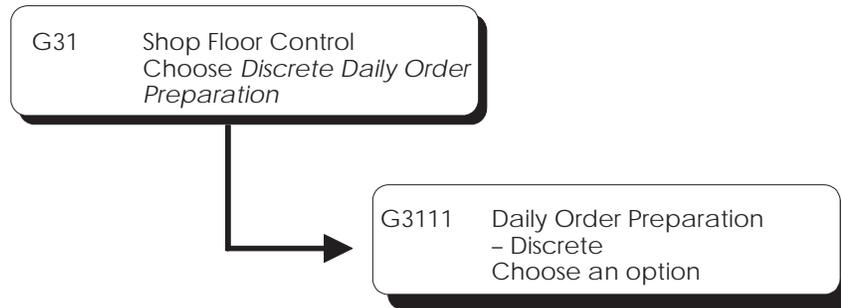
Complete the following tasks:

- Review material information (optional)
- Review item ledger information (optional)
- Review dispatch list information (optional)
- Review parts list comparison (optional)

See Also

- *Reviewing Availability (P30205)*
- *Reviewing Availability (P3121)*
- *Managing Shortage Information (P3118)*
- *Reviewing the Status of Hours (P31121)*
- *Reviewing the Status of Quantities (P31122)*
- *Reviewing the Status of Operation Quantities (P31124)*

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

Before You Begin

- Set up the Part Useability selection from the processing options before you review component useability

See Also

- *Manufacturing and Distribution Planning Guide* for more information about facilitating the tracking among systems

► **To review component useability**

On Component Useability

The screenshot shows a window titled "[30201] - Component Useability". It has a menu bar with "Functions", "Options", "Tools", and "Help". The main area contains several input fields: "Component" (4277), "FRAMING KIT, 38x60 DESK", "Quantity" (1), "Component Branch" (M30), "As of" (04/29/96), "Bill type" (M), "Lot/SN", "or Grade", and "or LotPotency". Below these fields is a table with the following data:

Level	Item Number	Description	Prod. Qty	UM
1	5120	Oak Desk With Chair	1	EA

At the bottom of the window, there are several icons and a status bar with the text: "Opt: 1=Item Master 3=Create W/O 4=Availability F24=More Keys MW".

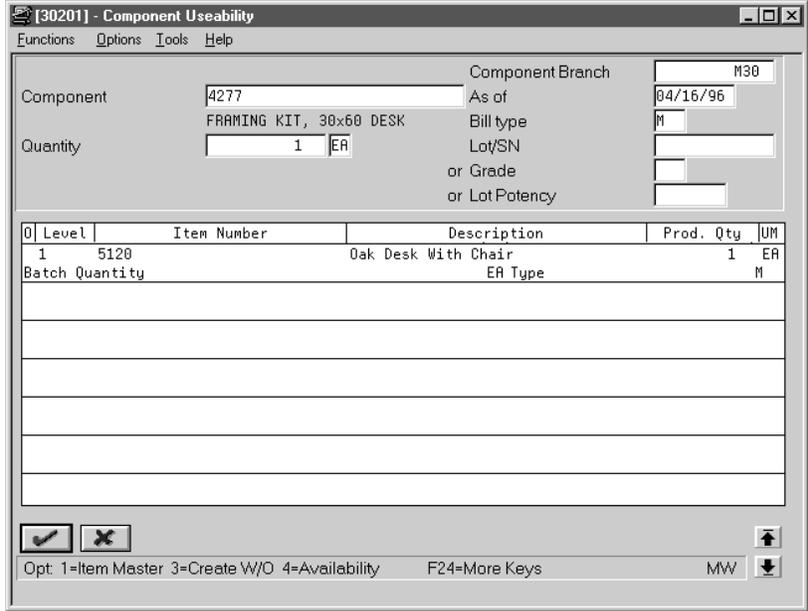
1. Complete the following fields:

- Component
- Quantity

The following fields display component information:

- Item Number
- Production Quantity

2. Access the fold area.



The following fields display component information:

- Batch Quantity
- Type

Field	Explanation
Item Number	<p>The system provides three separate item numbers plus an extensive cross-reference capability to alternate item numbers. These item numbers are:</p> <ol style="list-style-type: none"> 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. <p>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).</p>

► To review summary availability

On Summary Availability

D	PS	Location	On Hand	Committed	Available	On Receipt
P		10	495	445	50	31855
S		20				
S		Totals:	495	445	50	31855

1. 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
Primary Location (P/S)	<p>A value that indicates if this is the primary or secondary location for this item within this stocking location. Valid values are:</p> <p>P Primary storage location S Secondary storage location</p> <p>NOTE: You can only have one storage are within each branch or warehouse marked as primary. In some cases, the system uses the primary storage area as the default.</p>
Quantity Committed – Total	<p>The total quantity committed to a specific location. The total is calculated from the following fields:</p> <ul style="list-style-type: none"> • Soft Committed to Sales Orders • Hard Committed to Sales Orders • Soft Committed to Work Orders • Hard Committed to Work Orders
On Receipts	<p>The total quantity on receipt for a specified location. The total is calculated from the following fields:</p> <ul style="list-style-type: none"> • Quantity on Purchase Order Receipts • Quantity on Work Order Receipts

► **To review supply and demand information**

On Supply/Demand Inquiry

The screenshot shows a software window titled "[4021] - Supply/Demand Inquiry". It contains a form with the following fields: Branch/Plant (M30), Unit of Measure (EA), Thru Date, Item Number (5120), and Leadtime Level (5). Below the form is a table with columns: Demand, Supply, Available, Promise Date, Order No, Ty, and Customer/Supplier Name. The table lists various supply and demand entries, including "On Hand Balance", "Available to Promise", and several orders from "Edwards, J.D. & Company" and "Corporate Office Systems".

Demand	Supply	Available	Promise Date	Order No	Ty	Customer/Supplier Name
	495	495	04/29/96			On Hand Balance
		495	04/29/96			Available to Promise
	100	595	02/09/96	126287	WO	Available to Promise
2014		1419-	11/21/97	4663	SO	Edwards, J.D. & Company
	40	1379-	01/16/98	2428	WO	Available to Promise
		40	01/16/98			Available to Promise
	150	1229-	01/23/98	2452	WO	Available to Promise
		1379-	01/23/98	18892	SO	Corporate Office Systems
150		1519-	01/23/98	8670	SO	Corporate Office Systems
140		2657-	01/31/98			
1428		3746-	01/31/98			
1089		3791-	02/04/98	18905	SO	Corporate Office Systems
45		3901-	02/11/98	18913	SO	Corporate Office Systems
110		3951-	02/11/98	18913	SO	Corporate Office Systems
50						

1. Complete the following fields:

- Branch/Plant
- Item Number

2. Access the fold area.

The screenshot shows a window titled "[4021] - Supply/Demand Inquiry". It contains several input fields: Branch/Plant (M30), Unit of Measure (EA), Thru Date, Item Number (5120), and Leadtime Level (5). The item name is "Oak Desk With Chair". Below these fields is a table with columns: 0, Demand, Supply, Available, Promise Date, Order No, Ty, and Customer/Supplier Name. The table contains four rows of data, each representing a different type of quantity (On Hand Balance, Available to Promise, etc.) for the item.

0	Demand	Supply	Available	Promise Date	Order No	Ty	Customer/Supplier Name
		495	495	04/29/96			On Hand Balance
Br/Pl.		M30	Location				Lot
Cust/Supl.			Rec Type				On Hand Balance
Parent W.O			Parent				
			495	04/29/96			Available to Promise
Br/Pl.			Location				Lot
Cust/Supl.			Rec Type				Available to Promise
Parent W.O			Parent				
		100	595	02/09/96	126287	W0	Lot
Br/Pl.		M30	Location				
Cust/Supl.			Rec Type				Oak Desk With Chair
Parent W.O			Parent				
				02/09/96			Available to Promise
Br/Pl.			Location				Lot
Cust/Supl.			Rec Type				Available to Promise
Parent W.O			Parent				

At the bottom of the window, there are navigation buttons (checkmark, X, up/down arrows) and a status bar with the text: "Opt 1=WO 3=SO 4=PO 7=Rate F10=Sched F14=Msg F16=Peg F24=More MW".

The following fields display item information:

- On Hand Balance
- Parent Work Order

What You Should Know About

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.

Processing Options for Component Useability

VERSIONS TO EXECUTE:

1. Enter the version of Item Search (P41200) to execute. If left blank, version 'ZJDE0001' will be used. _____
2. Enter the version of Material Where Used Print (P30420) to execute. If left blank, version 'ZJDE0001' will be used. _____

TYPE OF INQUIRY DEFAULT:

3. Select one of the following: _____
 - 1 = Single Level Where Used
 - 2 = Multi-Level Where Used
 - 3 = Indented Where Used
 - 4 = All Co-/By-Products for a Process
 - 5 = Part/Ingredient Useability (If left blank, Single Level Where Used will default.)

PART USEABILITY OPTIONS:

- Enter the version to be used for each program. If left blank, ZJDE0001 is used.
4. Work Order Entry (P48013) _____
 5. Item Availability (P30205) _____

SCREEN DEFAULTS:

6. Enter the default Bill Type to be used. If left blank, '*' will be used for all Bill Types. _____

Processing Options for Summary Availability

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) _____

Shop Floor Control Discrete Manufacturing

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)

GRADE AND POTENCY:

- 15. Enter a '1' to display the grade range. If left blank, no grade will display for selection. _____
- 16. Enter a '1' to display the potency range. If left blank, no potency will display for selection. _____

Processing Options for Supply/Demand Inquiry

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.
 - 1 - Quantity in Transit _____
 - 2 - Quantity in Inspection _____
 - 3 - User Defined Quantity 1 _____
 - 4 - User Defined Quantity 2 _____
- 3. Enter a '1' to summarize all In Receipt Routing steps into one line. _____

DISPLAY OPTIONS (cont.):

- 4. Enter a '1' to summarize Item Location records. _____
- 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. _____

DREAMWRITER VERSIONS:

Enter the Dream Writer version to use for each program listed. If left blank, version ZJDE0001 will be used.

- 8. Purchase Order Entry (P4311) _____
- 9. Purchase Order Inquiry (P430301) _____
- 10. Sales Order Entry (P4211) _____
- 11. Sales Order Inquiry (P42045) _____
- 12. Scheduling Workbench (P31225) _____
- 13. MPS/MRP/DRP Pegging Inq. (P3412) _____
- 14. MPS/MRP/DRP Time Series (P3413) _____

15. MPS/MRP/DRP Message Detail(P3411) _____

OPTIONAL RECORDS:

16. Enter a '1' to include Planned Orders from MPS/MRP/DRP generations. If left blank, Planned Orders will not be displayed. _____

17. Enter the Forecast Type(s) to be included. Up to 5 types can be included. If left blank, no forecast records will be included. (Enter multiple forecasts, for example '01' '02' & 'BF', as '0102BF'). _____

OPTIONAL RECORDS (cont.):

18. 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. _____

19. Enter a '1' to omit 'Bulk' Stocking Type records from screen. If left blank, 'Bulk' items will be included. _____

OPTIONAL RECORDS (cont.):

20. Enter the rate based Schedule Type to use. If left blank, no rate based schedules will be displayed. _____

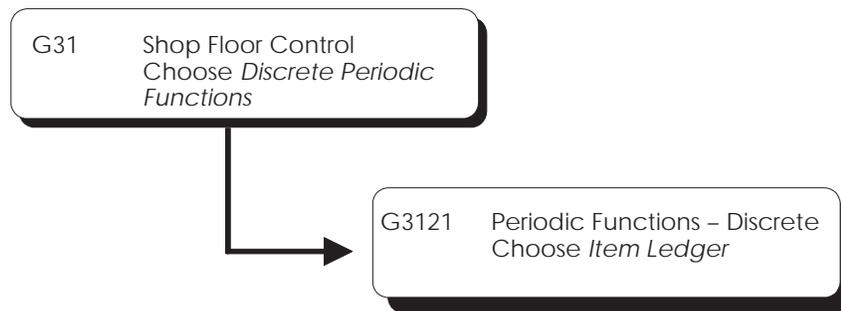
POTENCY:

21. Enter '1' to convert Quantities to Standard Potency. _____

LOT EXPIRATION:

22. 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.) _____

Reviewing Item Ledger Information



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

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)

Shop Floor Control Discrete Manufacturing

[4111] - Item Ledger

Functions Options Tools Help

Item Ledger

Dt From/Trans *

Dt Thru/Trans *

Document Type *

Item Number 5120 Oak Desk With Chair

Branch/Plant M30 Memphis Mfg. Plant

Location *

Lot/SN * Quantity on Hand 495 EA

Value 829,227.81

0	Document	Ty	Date	Branch/Plant	Quantity	UM	Unit Cost	Ext. Cost
	4480	IR	01/02/98	M30	230	EA	1,675.2077	385,297.77
	118105	IC	10/30/97	M30	5546	EA	734.8089	4,075,250.16
	118084	IC	07/30/97	M30	4637	EA	734.8089	3,407,308.87
	118050	IC	04/30/97	M30	3311	EA	734.8089	2,432,952.27
	118050	IC	01/30/97	M30	3311-	EA	734.8089	2,432,952.27-
	118050	IC	01/30/97	M30	3311-	EA	734.8089	2,432,952.27-
	118050	IC	01/30/97	M30	3311-	EA	734.8089	2,432,952.27-
	118025	IC	01/30/97	M30	3296	EA	734.8089	2,421,930.13
	118050	IC	01/30/97	M30	9933	EA	734.8089	7,298,856.80
	110189	IC	10/04/96	M30	4359	EA	734.8089	3,203,032.00
	110171	IC	07/05/96	M30	3355	EA	734.8089	2,465,283.86

Opt 5=Details F5=Item Search F10=Ledger/Running Balance F24=More Keys MW

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.

Document	Ty	Date	Branch/Plant	Unit Cost	Quantity	Quantity Balance
	BF	04/29/96	M30			2387-
1040	RI	05/15/96	M30	734.8089	729-	3116-
1042	RI	06/15/96	M30	734.8089	783-	3899-
1044	RI	07/15/96	M30	734.8089	876-	4775-
1046	RI	08/15/96	M30	734.8089	1158-	5933-
1048	RI	09/15/96	M30	734.8088	1060-	6993-
1050	RI	10/15/96	M30	734.8089	1137-	8130-
1052	RI	11/15/96	M30	734.8089	1291-	9421-
110154	IC	11/30/96	M30	734.8088	2387	7834-
110162	IC	11/30/96	M30	734.8088	2388	4646-
110171	IC	11/30/96	M30	734.8089	3355	1291-

Discrete Manufacturing

► **To review cost information in running balance format**

On Item Ledger (The CARDEX)

Select the Amount/Quantity format.

[4111] - Item Ledger

Functions Options Tools Help

Running Balance Dt From/G/L 04/29/96
Dt Thru/G/L *

Item Number 5120 Oak Desk With Chair
Branch/Plant M30 Memphis Mfg. Plant
Location *
Lot/SN *

0	Document	Ty	Date	Branch/Plant	Quantity	Unit Cost	Dollar Balance
		BF	04/29/96	M30			492,186.13
	1040	RI	05/15/96	M30	729-	734.8089	43,489.56-
	1042	RI	06/15/96	M30	783-	734.8089	618,844.93-
	1044	RI	07/15/96	M30	876-	734.8089	1,262,537.53-
	1046	RI	08/15/96	M30	1158-	734.8089	2,113,446.24-
	1048	RI	09/15/96	M30	1060-	734.8088	2,892,343.67-
	1050	RI	10/15/96	M30	1137-	734.8089	3,727,821.39-
	1052	RI	11/15/96	M30	1291-	734.8089	4,676,459.68-
	110154	IC	11/30/96	M30	2387	734.8088	2,922,470.84-
	110162	IC	11/30/96	M30	2388	734.8088	1,167,747.19-
	110171	IC	11/30/96	M30	3355	734.8089	1,297,536.67

Opt 5=Details F5=Item Search F10=Ledger/Running Balance F24=More Keys MW

Processing Options for Item Ledger Inquiry

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:

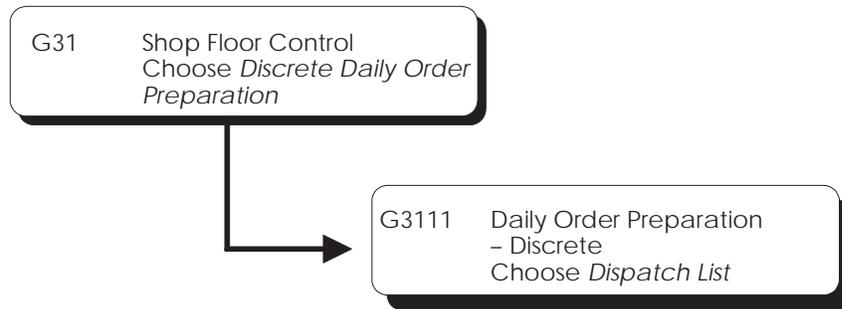
2. Enter the default document type upon entering the video. If left blank, a '*' will default for all document types.
3. Enter a '1' to display Item Ledger entries in ascending date and time order. If left blank, the entries will be displayed in descending date and time order. (This option does NOT apply 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

Reviewing Dispatch List Information



Use the Dispatch List program to list the work orders that have remaining operations for a given work center. The work order might not be physically present at the work center. You can display sequenced orders by start date or requested date. You can also schedule and release work orders to the work center. You can access associated information, such as routing instructions, parts lists, and work order status hours and quantities information as well.

Processing options allow you to define default from and through status and date values, as well as indicate which version of the Work Order Parts List Inquiry program the system uses when you access it.

Before You Begin

- To display the actual quantities, do one of the following:
 - Enter actual quantities on the Hours and Quantities form and run the Hours and Quantities Update
 - Use the online update function to post the entries

What You Should Know About

System calculations

The system calculates the remaining machine, labor, and setup run hours and the remaining quantities of the item to be produced. The calculations are:

Remaining run machine hours:

Standard run machine hours x (quantity remaining / standard quantity)

Remaining run labor hours:

Standard run labor hours x (quantity remaining / standard quantity)

Remaining setup time:

Standard setup time – hours recorded

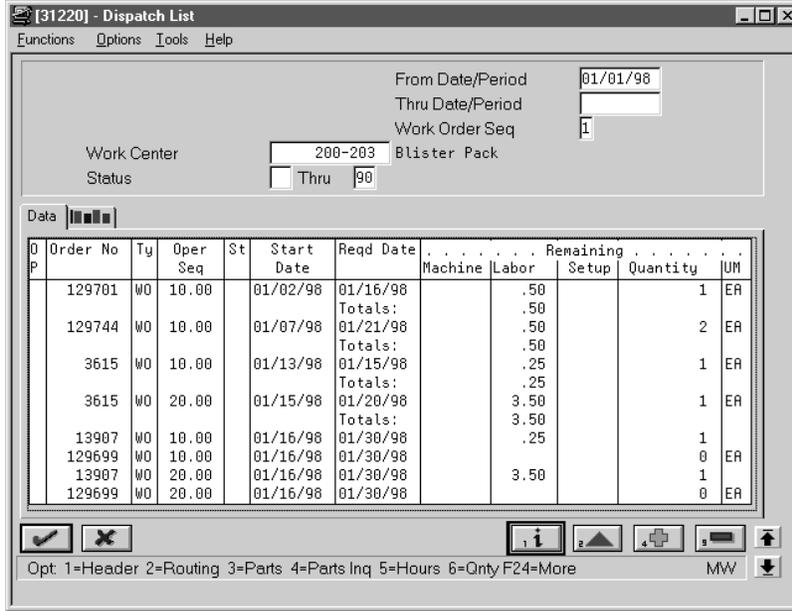
Values are from the Shop Floor Control Routing Instructions table (F3112)

Remaining quantity:

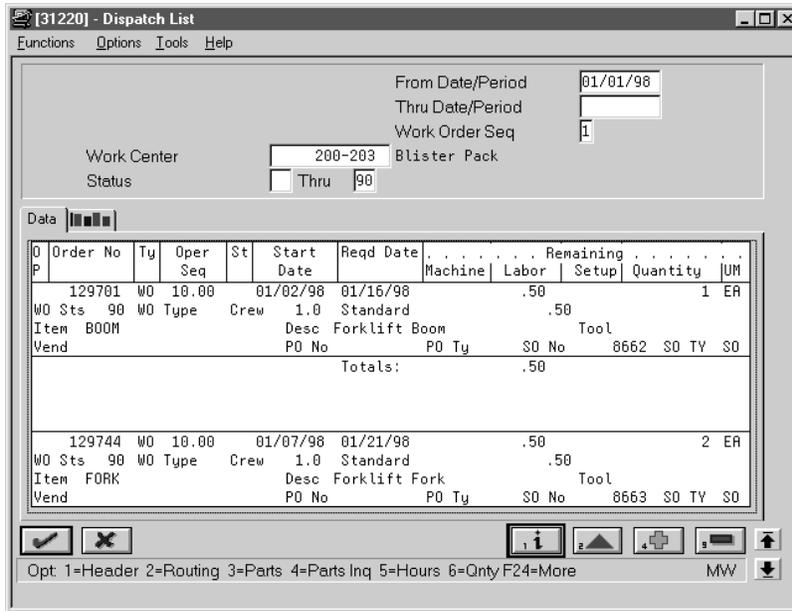
Total quantity ordered – completed quantity

To review dispatch list information

On Dispatch List



1. Complete the following field:
 - Work Center
2. Access the fold area.



Processing Options for Dispatch List

DEFAULT STATUS INFORMATION:

1. Enter the From Status. _____
2. Enter the Thru Status. _____

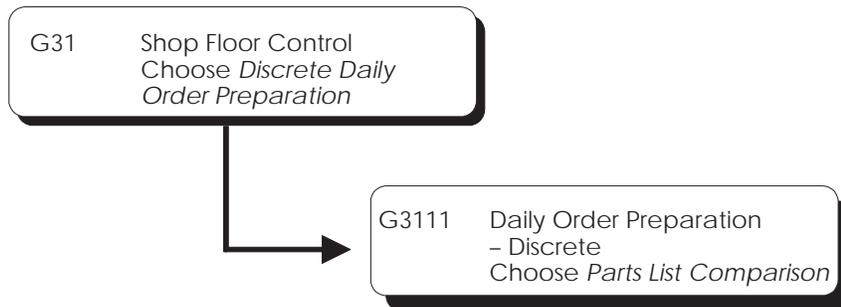
DEFAULT DATE INFORMATION:

3. Enter the number of days prior to today's date for the From Date. _____
4. Enter the number of days after today's date for the Thru Date. _____

DREAM WRITER VERSIONS:

5. Enter the version of Work Order Parts Inquiry to execute. If left blank, 'ZJDE0001' will be used. _____

Reviewing 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

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

Work Center	Part Number	Quantity per Item Number 1	Required for Item Number 2
200-204	4277	1	1
200-204	4133	4	4
200-204	3999	1	1
200-204	3881	7	7
200-204	3980	1	1
200-204	3981	4	4
200-204	3982	2	2
200-204	4218	1	1
200-202	2111	2	2
200-204	5666	1	1

- Complete the following fields to locate all components of your work orders:
 - Work Order 1
 - Work Order 2
- Access the fold area.

[31117] - Parts List Comparison

Functions Tools Help

Order Number 1 Order Number 2 All/Diff

Work Center

Dispatch Group

Item Number 1 5120 Item Number 2 5120

Oak Desk With Chair Oak Desk With Chair

Work Center	Part Number	Quantity per Required for...	
		Item Number 1	Item Number 2
200-204 4277	FRAMING KIT, 30x60 DESK	1 EA	1 EA
200-204 4133	SIDE ASSY, 30x30 OAK DESK	4 EA	4 EA
200-204 3999	BACK, OAK, 30x60, DESK	1 EA	1 EA
200-204 3881	DRAWER SLIDES & HARDWARE, 30in	7 EA	7 EA
200-204 3980	CENTER DRAWER FOR 30x60 DESK	1 EA	1 EA
200-204 3981	SIDE DRAWER, 30x60 DESK	4 EA	4 EA

F21=Comparison Report F24=More Keys

3. Review the part descriptions.

Processing Options for Parts List Comparison

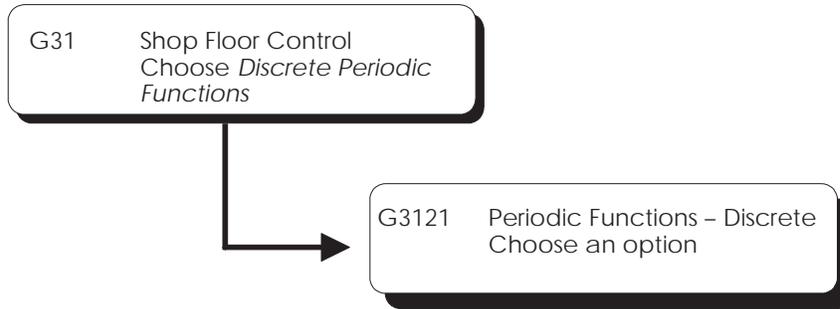
VIDEO SELECTIONS:

1. Enter a 'D' to list records with a Difference, or 'A' to list All. If left blank, 'A' will be used.

SUBMITTED REPORTS:

2. Enter the Dream Writer Version for the Work Order Comparison Report (P31417). If left blank version XJDE0001 will be used.

Print Material and Operation Reports



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:

Materials reports

Work Order Summary

Component Shortages

All Shortages

Supply and Demand

KANBAN Cards

Operations reports

Dispatch List

Hours and Quantities Proof

You can use discrete manufacturing reports to identify all:

- Work orders in your system
- Component parts 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:

Work Order Summary Work Order Master table (F4801)

All Shortages Shortage Maintenance Master table (F3118)

Complete the following tasks to print materials and operations reports using the Shop Floor Control system:

- Print the Supply and Demand report
- Print KANBAN Cards

See Also

- *Printing a Summary of Work Orders (P31400)*
- *Printing Component Shortages (P31418)*
- *Printing All Shortages (P3118P)*
- *Printing Scheduling Information for Work Centers (P31435)*

Printing the Supply and Demand Report

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 the Supply/Demand Inquiry form.

Item Number . . . 1001		Pen & Pencil Set		Unit of Measure . . EA					
Branch	Location	Lot	Demand	Supply	Request Available	Date	Order No	Ty	Description / Vendor Name
				769	769				On Hand Balance
					769				Available to Promise
				6	775	03/09/95	2004	OP	Edwards, J.D. & Company
				4	779	03/09/95	2006	OP	Vector Manufacturing Co
					8	03/09/95			Available to Promise
			1		778	03/09/95	2048	SO	Sales Order
			1		777	03/09/95	2050	SO	Sales Order
				10	787	03/10/95	2007	OP	Edwards, J.D. & Company
				1	788	03/10/95	2008	OP	Vector Manufacturing Co
					11-	03/10/95			Available to Promise
			10		778	03/10/95	2051	SO	Sales Order
			10		768	03/14/95	2053	SO	Sales Order
			2		766	03/14/95	2054	SO	Sales Order

See Also

- *Reviewing Material Information (P4021)*

Printing KANBAN Cards

KANBAN cards are information cards that are used to tag a group or bin of items that go in and out of a work center. They indicate to producing work centers what has been consumed and what needs to be produced next. Some companies use various shapes, sizes, and colors of cards for each recognition and to indicate an item's priority.

The KANBAN Cards Print program calculates the number of production and withdrawal KANBAN cards required for an item at a work center and prints them for you. The spool file created as output can be custom formatted using a formatting facility, such as FORMS/400, which allows you to include only the information you want on the cards and print them in the style you want.

Before You Begin

- Define workdays for the branch on the work day calendar.
- Create routings in the Routing Master table (F3003).
- Ensure that your MPS/MRP/DRP values are current. If these values are not current, the demands either will not exist or will be inaccurate.

Work Center:	48-204 Final Assembly/inspection
Item Number:	1001
Container Type:	Blank - Storage Requirements 41/R
Units Per Container:	200
Lot Quantity in Units:	2000
Lot Size in Containers:	1
Card Number:	1 of 1
Avg. Daily Demand:	9.0909
Workdays in Period:	22
Queue Hours:	

What You Should Know About

Running this program The number of cards required is not saved by the system, but is recalculated each time you run the program.

The number of withdrawal cards required is calculated with the same formula as the production cards. The system uses the replenishment time for the work center for queue time and a process time of zero to calculate the withdrawal cards required.

Calculations The KANBAN Card Print program calculates the number of cards required using the following formula:

Number of cards = average daily demand (wait time + processing time per lot) (1 + safety stock as a percent) / container quantity

Processing Options for Kanban Card Print

KANBAN CARD SELECTIONS:

1. Select the type of KANBAN cards to be printed. _____
 1 = Production Cards
 2 = Withdrawal Cards

SAFETY STOCK:

2. Enter the desired safety stock expressed as a percentage of daily production. ('15' = 15%) _____

KANBAN AVERAGE DAILY DEMAND:

3. Enter the date range to use for the average daily demand calculation.
 Beginning Date (Required) _____
 Ending Date (Required) _____
4. Enter a '1' to select the MPS/MRP demands desired. If no demands are selected, the planning time fence rule defined demand will be used.
 Forecasts _____
 Sales Orders. _____
 Firm Work Orders. _____
 Planned Work Orders _____

System Setup



System Setup

Objectives

- To set up the required data in the Shop Floor Control system
- To understand how the system uses the data

About System Setup

To set up your Shop Floor Control system, complete the following tasks:

- Set up work order codes
- Set up manufacturing information

Set up all the codes needed for work orders, such as priority, status, and category codes. Set up all the information needed for discrete and process manufacturing, such as employee labor rates, shop floor calendar, and work centers.

Before You Begin

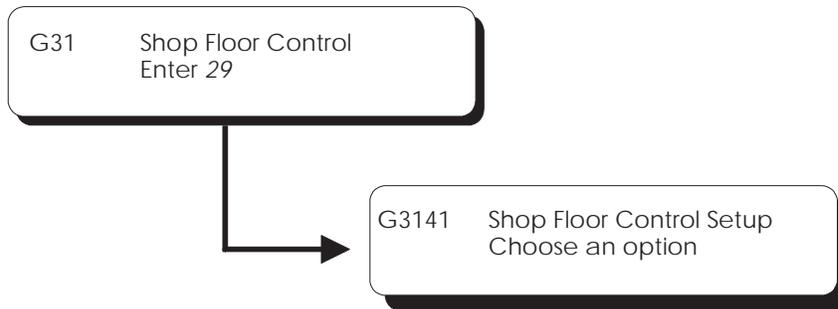
- Set up the following records in the Inventory Management system:
 - Item Master
 - Branch/Plant

See Also

- *Technical Foundation Guide* for information on defining user defined codes
- *Inventory Management Guide* for information on setting up the Item Master, Branch/Plant, and Lot Master records



Set Up Work Order Codes



If the user defined code you want to set up is not a menu selection, enter *UDC* from any menu to access the General User Defined Codes form.

Setting Up Work Order Codes

You need to define certain user defined codes for your manufacturing work orders. Complete the following tasks:

- Set up type codes
- Set up priority codes
- Set up status codes
- Set up phase codes
- Set up category codes 02 and 03
- Set up operation status codes
- Set up document type codes

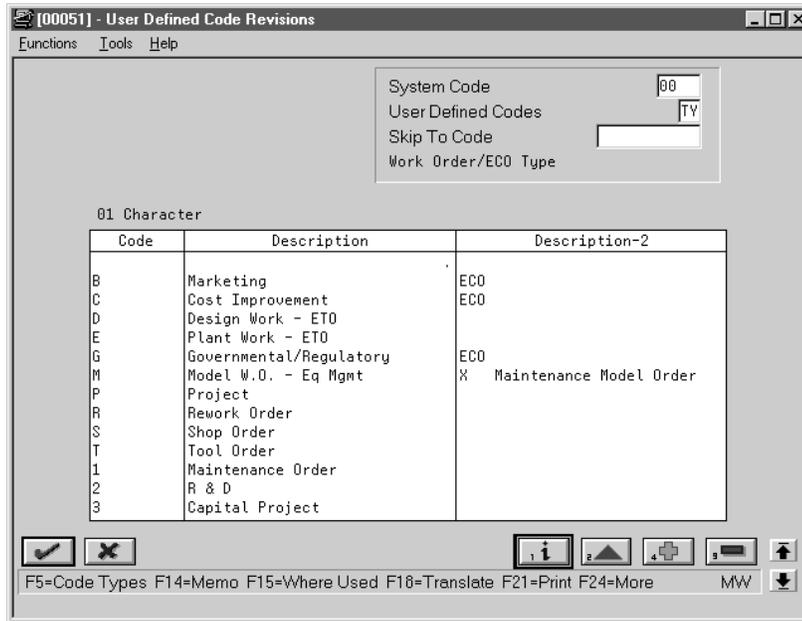
See Also

- *Creating Work Orders (P48013)*

► **To set up type codes**

Work order type codes (system 00, type 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



Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description
- Description-2

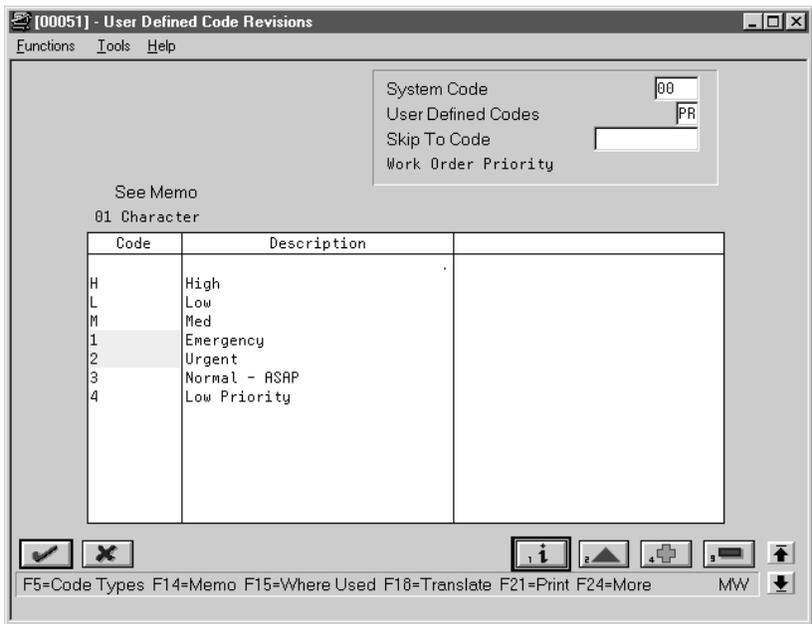
Field	Explanation
System Code	A user defined code (98/SY) that identifies a J.D. Edwards system.
User Defined Codes	Identifies the table which contains user defined codes. The table is also referred to as a code type.
User Defined Code	This column contains a list of valid codes for a specific user defined code table. The number of characters permitted for a code appears in the column title.

Field	Explanation
Description	A user defined name or remark that describes a field.
Description-2	Additional text that further describes or clarifies a field in J.D. Edwards systems.

► To set up priority codes

Work order priority codes (system 00, type 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



Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

▶ To set up status codes

Work order status codes (system 00, type 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

The screenshot shows a window titled "[00051] - User Defined Code Revisions" with a menu bar containing "Functions", "Tools", and "Help". The window contains several input fields: "System Code" with the value "00", "User Defined Codes" with the value "SS", "Skip To Code" (empty), and "Work Order Status" (empty). Below these fields is a section labeled "02 Character" containing a table with three columns: "Code", "Description", and "Description-2". The table lists various codes and their corresponding descriptions. At the bottom of the window, there is a toolbar with icons for checkmark, close, help, and other functions, along with a status bar containing function key shortcuts: "F5=Code Types F14=Memo F15=Where Used F16=Translate F21=Print F24=More MW".

Code	Description	Description-2
A	Approved ECO	
AI	Additional data required (ECO)	
D	Disapproved ECO	
EM	Emergency Order	
E1	ECO Entered	
E2	Preliminary Workup	
E3	Approval Pending	
E4	ECO Approved	
E5	ECO Implemented	
IA	Inactive Work Order	
M	Maintenance Work Request	
M*	MWO Waiting Manager Approval	
MA	MWO Approved	

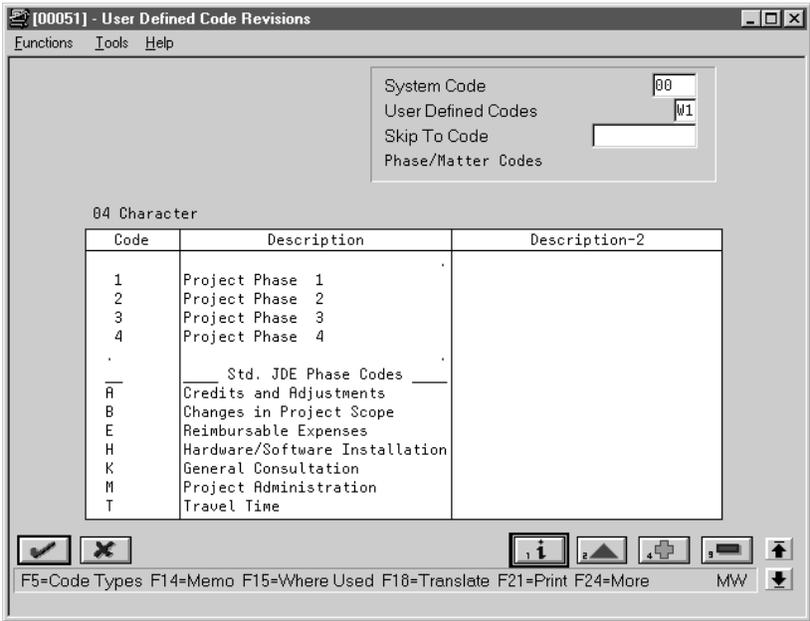
Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

▶ **To set up phase codes**

Work order phase codes (system 00, type 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



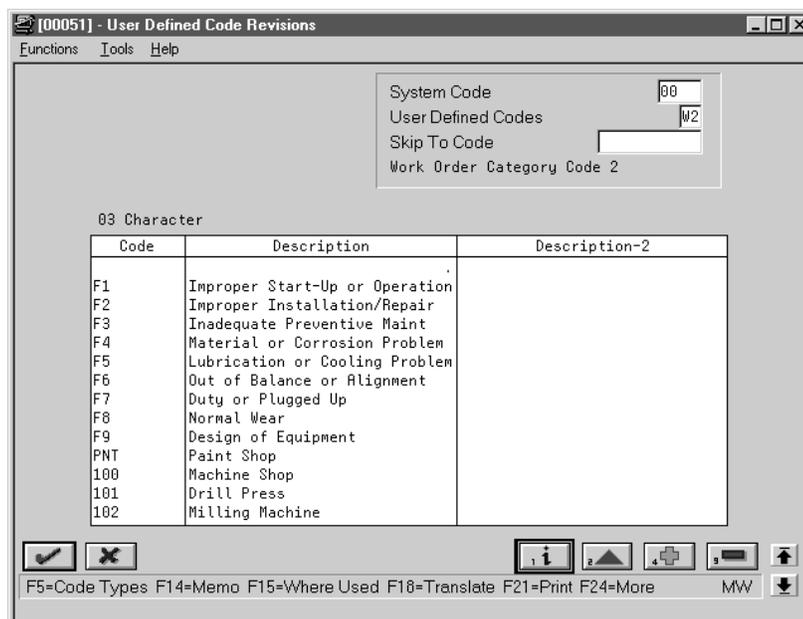
Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

▶ To set up category codes

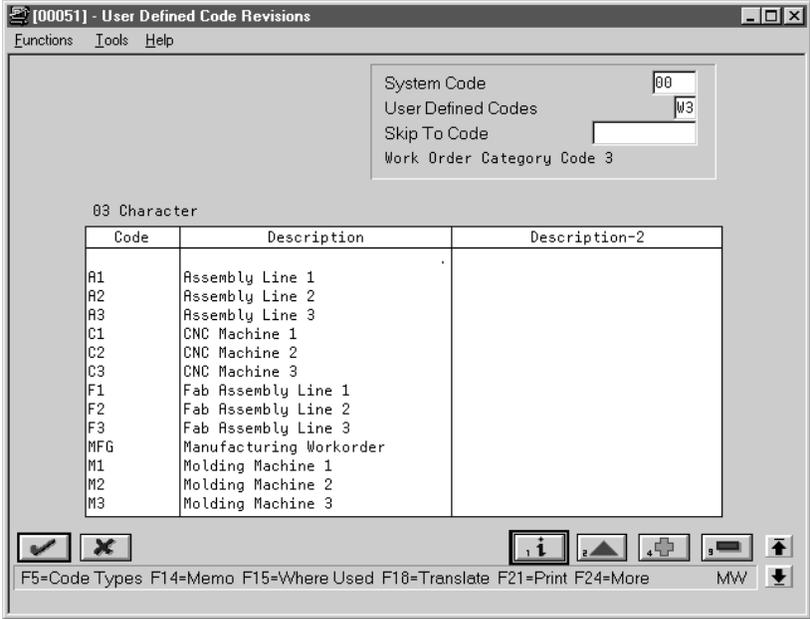
Work order category codes 02 and 03 can represent any category or description by which you want to group work orders for project management, cost accounting, or inquiries. For example, you can set up one category code to represent types of problems encountered in the work order implementation, such as improper startup or inadequate maintenance, and another code to represent locations where the work is taking place.

On Category Code 02 or Category Code 03



The screenshot shows a software window titled "[00051] - User Defined Code Revisions". It has a menu bar with "Functions", "Tools", and "Help". The window contains several input fields: "System Code" with the value "00", "User Defined Codes" with the value "W2", "Skip To Code" (empty), and "Work Order Category Code 2" (empty). Below these fields is a section titled "03 Character" containing a table with three columns: "Code", "Description", and "Description-2". The table lists various codes and their corresponding descriptions. At the bottom of the window, there is a toolbar with several icons and a status bar with the text "F5=Code Types F14=Memo F15=Where Used F18=Translate F21=Print F24=More MW".

Code	Description	Description-2
F1	Improper Start-Up or Operation	
F2	Improper Installation/Repair	
F3	Inadequate Preventive Maint	
F4	Material or Corrosion Problem	
F5	Lubrication or Cooling Problem	
F6	Out of Balance or Alignment	
F7	Duty or Plugged Up	
F8	Normal Wear	
F9	Design of Equipment	
PNT	Paint Shop	
100	Machine Shop	
101	Drill Press	
102	Milling Machine	



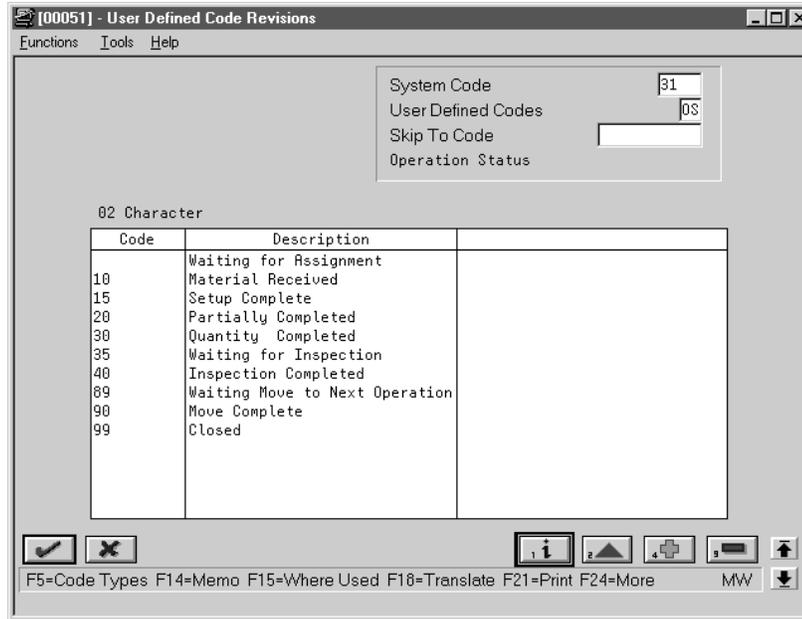
Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

▶ To set up operation status codes

Work order operation status codes (system 31, type 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



Complete the following fields:

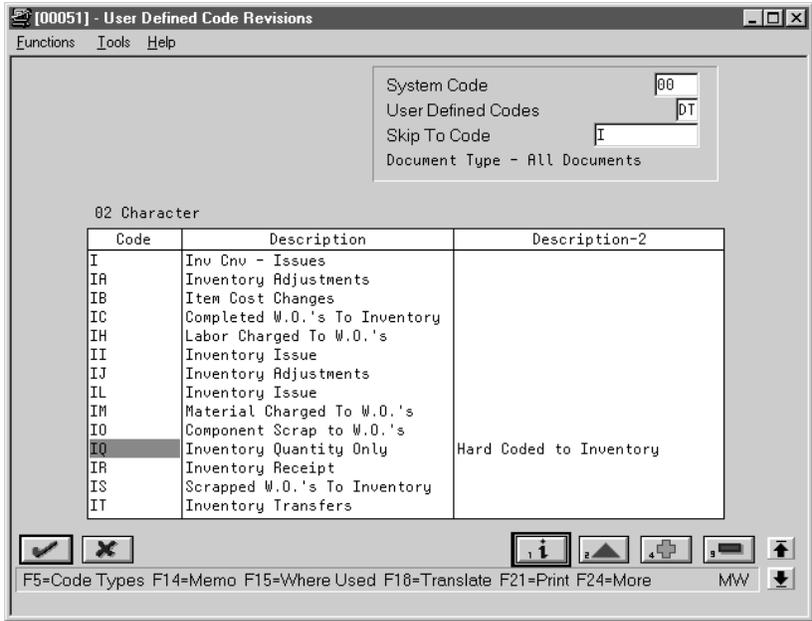
- System Code
- User Defined Code
- Character Code
- Description

► To set up document type codes

You can categorize your work orders by document type using user defined codes (system 00, type 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 J.D. Edwards systems. You can specify up to 12 document types to be used 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



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

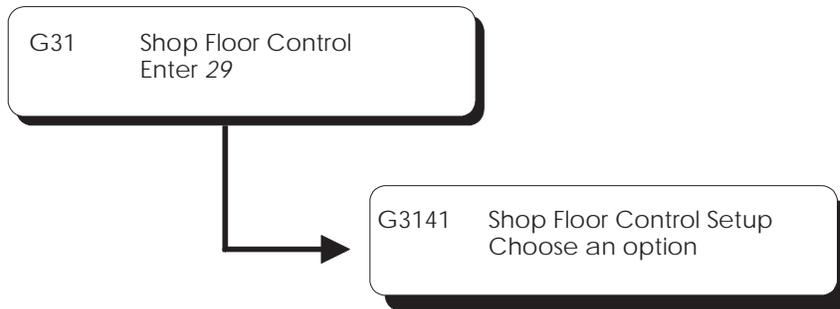
Processing Options for User Defined Codes

DEFAULT CODE/TYPE:

1. Enter the desired Install System Code. _____

2. Enter the desired Record Type. _____

Set Up Manufacturing Information



Setting Up Manufacturing Information

Set up the information needed for discrete manufacturing, such as user defined codes, work day calendars, and constants. Complete the following tasks:

- Set up standard procedures
- Set up employee labor rates
- Set up rate schedule types
- Set up the shop floor calendar
- Set up manufacturing constants
- Set up work centers
- Set up resource units

Setting Up Standard Procedures

You can set up user defined codes (system 48, type 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 the Enter/Change Routing form.

What You Should Know About

Indicating the procedure to use for routings

After you define standard procedure codes, you can enter them in the Standard Description field on the Enter/Change Routing form to indicate the procedure to use for each routing operation.

► To set up standard procedures

On Standard Procedures

The screenshot shows a window titled "[00191] - Generic Rate/Message Records" with a menu bar containing "Functions", "Options", "Tools", and "Help". The window contains a form with the following fields:

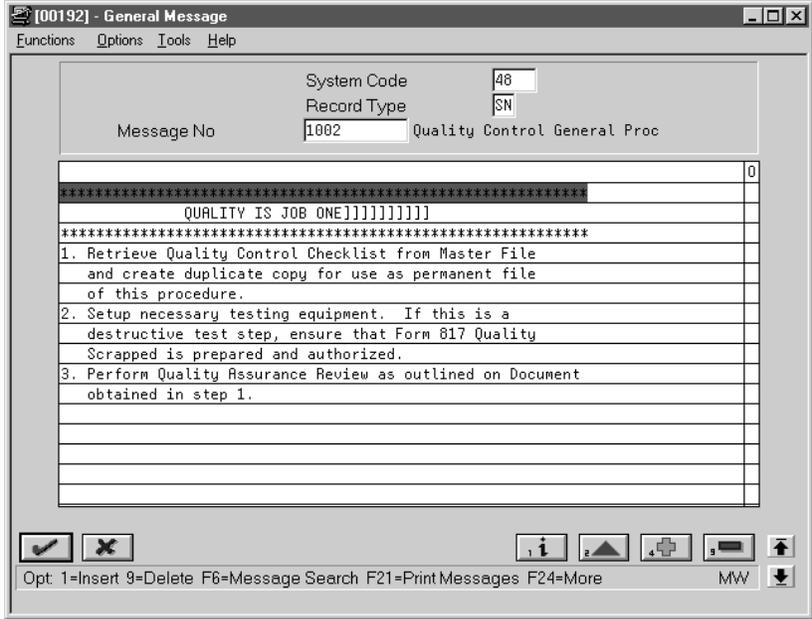
- System Code: 48
- User Defined Codes: SN
- Skip To Code: (empty)
- Standard Descriptions: (empty)

Below the form is a table with the following data:

10 Characters	
Code	Description
CHECKLIST	Maintenance Checklist
LOCKOUT	Lockout/Tagout Procedure
VEHICLE	General Work On Vehicles
01-405	Overhaul Motor
1000	1000 hour maintenance steps
1001	General Assembly Procedure
1002	Quality Control General Proc
250	250 hour maintenance steps
500	500 hour maintenance steps

At the bottom of the window, there are several icons and a status bar. The status bar contains the text: "Opt: 1=General Message F5=Record Types F21=Print F24=More Keys MW".

1. Complete the following fields:
 - Character Code
 - Description
2. Choose General Message.



3. On General Message, complete the following fields to add a message to the code you selected:
 - Message Number
 - Message

Processing Options for Standard Procedures

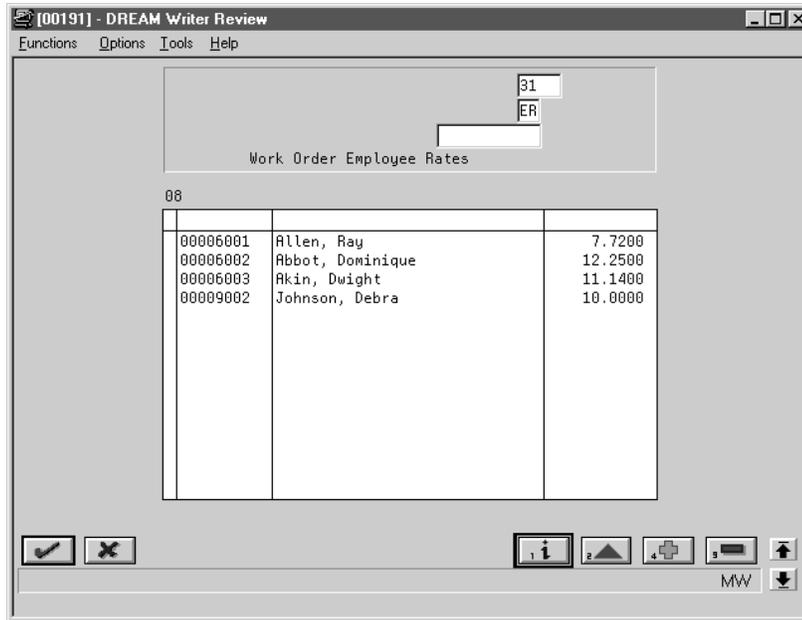
- USER DEFINED CODES:
1. Enter the desired System Code. _____
 2. Enter the desired Record Type. _____
- DISPLAY INFORMATION
3. Enter an '1' to display Rate Text or
Enter an '2' to display Message Text _____
 4. If displaying Message Text,
Enter an '1' for 60 column display or
Enter an '2' for 80 column display _____

Setting Up Employee Labor Rates

Employee labor rate codes are user defined codes (system 31, type ER) that represent hourly labor rates for your employees. The rate you define for each employee displays 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



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 for Employee Labor Rates

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 _____

Setting Up Rate Schedule Types

Rate schedule types are user defined codes (system 31, type ST) that identify classifications of rate schedules. For example, you could specify rate schedules for minimum, peak, or seasonal production periods, or for planned and actual production.

► To set up rate schedule types

On Rate Schedule Type

The screenshot shows a window titled "[00051] - User Defined Code Revisions". It has a menu bar with "Functions", "Tools", and "Help". In the top right, there are input fields for "System Code" (31), "User Defined Codes" (ST), "Skip To Code", and "Schedule Type". Below this is a section labeled "02 Character" containing a table with three columns: "Code", "Description", and "Description-2". The table lists several entries, with "DF" selected. At the bottom, there are several icons and a footer with function key definitions: F5=Code Types, F14=Memo, F15=Where Used, F18=Translate, F21=Print, F24=More, and MW.

Code	Description	Description-2
AC	Actual Schedule	
AS	Scrap Schedule	
DF	Rate Generation Rule	Hard Coded
FS	Firm Schedule	
PL	Planned Schedule	

Complete the following fields:

- Character Code
- Description
- Description 2

What You Should Know About

Default schedule type

The DF (default) schedule type is hard-coded for use in the Manufacturing Planning systems.

The system can prompt you to create a rate schedule. When you respond to the create rate message generated by MRP, the system creates the rate schedule with the type specified in the processing options. You can change the schedule type to comply with your company's conventions.

Processing Options for Rate Schedule Type

DEFAULT CODE/TYPE:

1. Enter the desired Install System Code. _____

2. Enter the desired Record Type. _____

Setting Up the 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.

What You Should Know About

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, the system displays it with default values. You can then add the record.

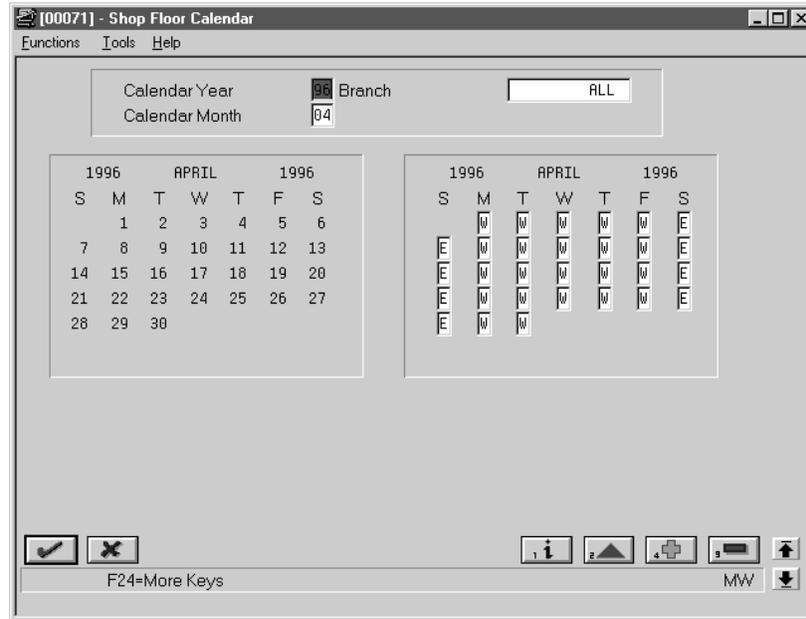
System defaults

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.

► 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



Complete the following fields:

- Branch
- Calendar Year
- Calendar Month
- Type of Day

The calendar on the left shows the actual calendar days for the month and year that you requested to display. The calendar on the right shows the workdays and non-workdays you defined.

Field	Explanation
Branch	<p>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:</p> <ul style="list-style-type: none"> • Branch/Plant (MMCU) • Dept A (MCU) • Dept B (MCU) • Job 123 (MCU) <p>Business unit security is based on the higher-level business unit.</p> <p>..... <i>Form-specific information</i></p> <p>This value identifies the branch/plant that the calendar resides in.</p>
Year – Calendar Year	The calendar year.
Calendar Month	The calendar month.

Setting Up 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
- If work center efficiency is considered when calculating direct labor and overhead
- If an audit trail tracks all changes made to bills of material
- Whether the system validates bills of material online as you enter them

Information you define for manufacturing constants affects all areas of the J.D. Edwards 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

See Also

- *Setting Up Manufacturing Constants (P3009) in Product Data Management Discreet Manufacturing Guide*

► **To set up engineering manufacturing constants**

On Manufacturing Constants

[3009] - Manufacturing Constants	
Functions Tools Help	
Branch	M30
Log Bill of Material Changes	<input type="checkbox"/> N
On-Line BOM Validation (Y/N)	<input checked="" type="checkbox"/> Y
Work Hours Per Day	8.00
Backflush Options	<input type="checkbox"/> 1
Master Routings (Y/N)	<input type="checkbox"/> N
Commitment Control	<input type="checkbox"/> 3
Hard/Soft Commit	<input type="checkbox"/> 1
Overheads as Percents or Rates	<input type="checkbox"/> F
Modify cost by Work Center Eff	<input checked="" type="checkbox"/> Y
Include Efficiency in Overhead	<input checked="" type="checkbox"/> Y
Include Var. Labor Overhead in cost	<input checked="" type="checkbox"/> Y
Calculate Var. on Direct Labor	<input checked="" type="checkbox"/> Y
Calculate Var. on Setup Labor	<input checked="" type="checkbox"/> Y
Include Fixed Labor Overhead in cost	<input checked="" type="checkbox"/> Y
Calculate Fixed on Direct Labor	<input checked="" type="checkbox"/> Y
Calculate Fixed on Setup Labor	<input checked="" type="checkbox"/> Y
Include Var. Machine Overhead in cost	<input checked="" type="checkbox"/> Y
Include Fixed Machine Overhead in cost	<input checked="" type="checkbox"/> Y

1. Complete the following fields:
 - On-Line BOM Validation
2. Complete the following optional fields:
 - Log Bill of Material Changes
 - Master Routings

Field	Explanation
Log Bill of Material Changes	<p>This field determines whether changes to the bill of material are recorded in the Bill of Material Change table (F3011). Valid values are:</p> <ul style="list-style-type: none">Y Yes, log changes.N No, do not log changes. <p>Blank will assume an N.</p> <p>When you log bill of material changes, the system saves the old bill of material and the new changed bill of material.</p>
On-Line BOM Validation (Y/N)	<p>Determines whether the system performs an online component/parent validation and low-level code assignment when you revise a bill of material.</p> <p>Valid values are:</p> <ul style="list-style-type: none">Y Yes, validate items online.N No, do not validate items online. <p>Note: J.D. Edwards recommends that you validate items online (enter Y) unless your bills of material are extremely large.</p> <p>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 Frozen Cost Update program (P30835) or perform a DRP/MPS/MRP generation (P3482).</p>
Master Routings	<p>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:</p> <ul style="list-style-type: none">Y Yes, use the master routing for an item, if one exists. The Shop Floor Control system will check the Item Cross Reference table (F4104), Cross Reference Type MR, for the parent item. If it finds a cross-reference, the system uses the master routing from the Routing Master table (F3003). If it 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 will always use the parent item's routing from the Routing Master table (F3003).

► **To set up production manufacturing constants**

On Manufacturing Constants

Complete the following optional fields:

- Work Hours Per Day
- Backflush Option
- Commitment Control
- Hard/Soft Commit

Field	Explanation
Hours – Work Hours Per Day	The number of work hours that the manufacturing plant operates per day.
Backflush Options	<p>Determines how the system performs commitment and release of inventory during the backflush process. Valid codes are:</p> <ol style="list-style-type: none"> 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. <p>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.</p>

Field	Explanation
Commitment Control	<p>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:</p> <ol style="list-style-type: none"> <li>1 Make commitments to the primary location in the branch/plant where the work order originates. <li>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. <li>3 Same as 2, but the system cannot cross branch boundaries. <p>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.</p>
Hard/Soft Commit	<p>Determines how the Shop Floor Control system commits inventory. Valid codes are:</p> <ol style="list-style-type: none"> <li>1. The system performs a hard commitment at the creation of the parts list. The hard commitment remains in effect until inventory is relieved. <li>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. <li>3. The system performs a soft commitment at creation of the parts list. The soft commitment remains in effect until inventory is relieved. <p>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.</p>

► **To set up accounting manufacturing constants**

On Manufacturing Constants

1. Complete the following fields:
 - 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
Percents or Rates	<p>Determines how values for overhead fields (cost components C1 through C4) in the Work Center Rate Revisions table (F30061) are expressed. Valid codes are:</p> <p>R Express overhead values as rates (currency values). For example, enter five dollars as 5.00.</p> <p>P Express overhead values as percents. Enter percents as whole numbers. For example, enter five percent as 5.00.</p>
Modify Cost by Work Center Efficiency	<p>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 (F3006). Valid values are:</p> <p>Y Yes. Create cost component B4.</p> <p>N No. Do not create cost component B4.</p>
Include Efficiency in Overhead	<p>Determines whether the cost rollup includes work center efficiency when calculating overhead values. Valid values are:</p> <p>Y Include work center efficiency.</p> <p>N Exclude work center efficiency.</p>

Field	Explanation
Include Variable Labor Overhead in Cost	Controls whether the cost rollup creates cost component C3 (for variable labor overhead) in the Item Cost Component Add-Ons table (F30026). Valid values are: Y Yes. Create cost component C3. N No. Do not create cost component C3.
Calculate Variable 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 Variable 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 Item Cost Component Add-Ons 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 Variable Machine Overhead in Cost	Controls whether the cost rollup creates cost component C1 (for variable machine overhead) in the Item Cost Component Add-Ons 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 Item Cost Component Add-Ons table (F30026). Valid values are: Y Yes. Create cost component C2. N No. Do not create cost component C2.

Setting Up 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.

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

System calculations

If you set the Modify Cost by Work Center Efficiency field to Y on the Manufacturing Constants form, 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.

Warehouse Management interface

If you are using 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 the Enter/Change Work Center form, you can access the Work Center Rate Revisions form 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.

Other J.D. Edwards 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 the Enter/Change Work Center form, you can access the Business Unit Information form to maintain business units and track costs.

▶ To set up work centers

On Enter/Change Work Center

[3006] - Enter/Change Work Centers

Functions Tools Help

Work Center 200-203 Blister Pack
Dispatch Group 200-200 Assembly Department

Pay Point Code 0 Location
Prime Load Code B Branch M30
Critical Work Center 3

Crew Size 1.0
Number of Machines 10
Number of Employees 60

Queue Hours
Move Hours
Replenishment Hours

Resource Offset 1
Efficiency 75.00
Utilization 100.00

F8=Work Center Rates F10=Business Unit Revisions F24=More Keys MW

1. Complete the following field to locate the record for your work center:
 - Work Center
2. Complete the following optional fields:
 - Dispatch Group
 - Branch
 - Crew Size
 - Queue Hours
 - Move Hours

Field	Explanation
Work Center	<p>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. The Business Unit field is alphanumeric.</p> <p>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 A/P and A/R by business units, to track equipment by responsible department.</p> <p>Business unit security can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses this value for Journal Entries if a value is not entered in the AAI table.</p>
Dispatch Group – Work Centers	<p>This is used as 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.</p>
Crew Size	<p>The number of people who work in the specified work center or routing operation.</p> <p>The system multiplies the Run Labor value in the Routing Master table (F3003):</p> <ul style="list-style-type: none"> • By crew size during costing to generate total labor dollars • During Process Work Orders and Order Maintenance to generate total labor hours <p>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 – without modification by crew size – for backscheduling.</p> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>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.</p>

Field	Explanation
Move Hours	<p>The planned time in hours that is required to move the order from this operation to the next operation in the same work center.</p> <p>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.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>
Replenishment Hours	<p>The time required before a consuming work center will have a replacement container of goods available from this supplying work center.</p> <p>This value is used only for KANBAN card processing in Shop Floor Control.</p>

Setting Up 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

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.

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 have made to the hours on the Enter/Change Resource Units form will be 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

- *Setting Up the Shop Floor Calendar (P00071)*

▶ **To set up resource units**

The Enter/Change Resource Units form shows the work hours available each day of a specified month for a work center.

On Enter/Change Resource Units

1. Complete the following fields:
 - Branch
 - Unit of Measure
 - Work Center
 - Calendar Month/Year
 - Resource Unit

2. Complete the following optional fields:
 - 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	<p>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. The Business Unit field is alphanumeric.</p> <p>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 A/P and A/R by business units, to track equipment by responsible department.</p> <p>Business unit security can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses this value for Journal Entries if a value is not entered in the AAI table.</p> <p>..... <i>Form-specific information</i></p> <p>This value identifies the available capacity for the work center.</p>
Efficiency	<p>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.</p> <p>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).</p> <p>Enter percents as whole numbers, for example, enter 80% as 80.00.</p>
Total Resource Units	<p>The total resource units for the month.</p>
Work Center Utilization	<p>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.</p> <p>Enter percents as whole numbers, for example, enter 80% as 80.00.</p>

Processing Options for Refresh Resource Units

Enter the "Start" date for the Resource
Units generation process.

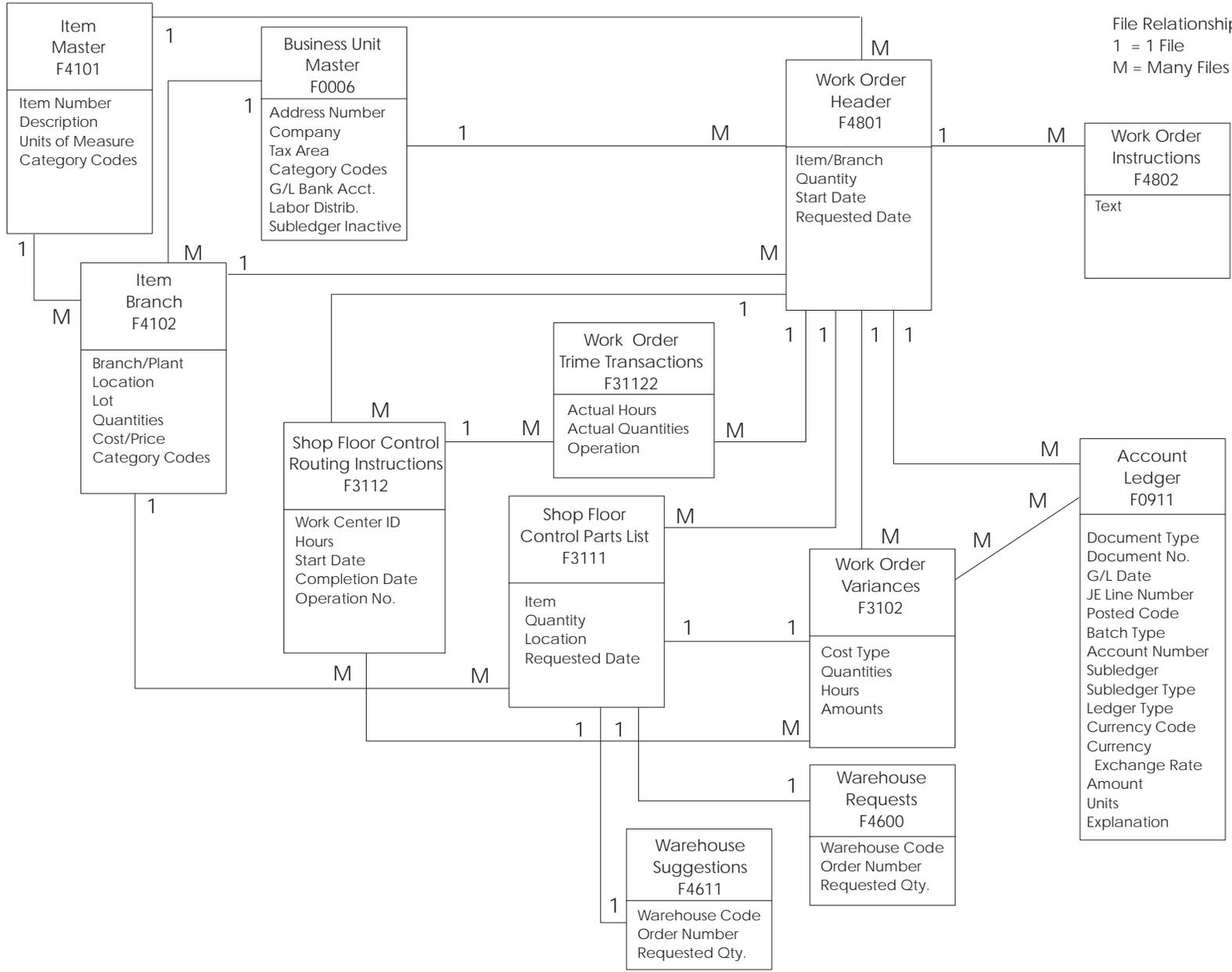
Enter the "End" date for the Resource
Units generation process.

Enter the Branch/Plant to be processed.

Appendices

Appendix A — Data Model

File Relationships
 1 = 1 File
 M = Many Files



Appendix B — Test Yourself Answers

This Section Includes

Committing Inventory	B-2
Changing Item Classification	B-3
Availability and Shortages	B-4
Managing Schedules	B-5

Committing Inventory

1. A hard commitment physically ties inventory to an order or rate schedule. A soft commitment is a tentative commitment of inventory and can be issued to another order or rate schedule.
2. – Commitment Method
– Commitment Control
– Hard/Soft Commit
3. Yes, you can set the system to commit inventory from a location related to a work center.
4. A program that clears outdated or invalid commitments and reposts the commitments and on-order quantities on your process orders to current requirements.
5. False — At the *item* level, you can commit inventory by lot number or lot expiration date.
6. True
7. False — Using the normal inventory commitment method, inventory is committed from the primary location, *then secondary locations using those locations with the greatest quantity first.*
8. True
9. True
10. True

Changing Item Classification

1. – Reclassify Items
 - Group Reclassifications
 - Reverse Reclassifications
2. No – This is just one option.
3. Locate the transaction you want to reverse, change the action code to C, and enter a 2 in the Option field of the line to be reversed.
4. – Assign Manually
 - Newest From Expiration Date
 - Oldest From Expiration Date
 - Transaction Date Plus Shelf Life

Availability and Shortages

1. Part Availability is for a process and Part List is for an order.
2. In the Branch/Plant Constants.
3. Place a minus sign (-) next to quantity that is soft committed to SO & WO.
4. Enter a 3 in the Option field next to the component you are entering the shortage for.
5. True
6. False – The parts list displays the items required to complete the quantity for *a given* work order.
7. True
8. False – Quantities in safety stock *can be* considered on hand.
9. True

Managing Schedules

1. Scheduling Workbench
Dispatch List
Schedule Review
2. False — From the Rate Schedule Workbench, you can *manage* rates for an item.
3. True
4. False — Manufacturing leadtime is the total amount of time required to produce an item *excluding* the purchase leadtime.

Appendix C — Leadtimes

Determining leadtime 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 leadtime is the total amount of time that is required to produce a product. The Shop Floor Control system uses the requested date of the order and, based on the level leadtime for the product, calculates the appropriate order start date.

Many factors can influence your company's leadtime 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 leadtime:

- Level
- Manufacturing
- Cumulative
- Per unit

The Shop Floor Control system uses the following data in its calculation of leadtimes:

- Serial or overlap operations
- Fixed or variable leadtime indicator
- Routing labor, setup, queue, and move hours
- Work center prime load code

- Number of employees per work center
- Hours per work day

The system:

- Uses the information you set up for each item in the Plant Manufacturing Data form in the Inventory Management system
- Coordinates the information with routing and work center information entered in the Product Data Management (PDM) system
- Determines leadtimes for all parent and component items

At any point in your planning and scheduling process, you can change leadtime values manually through the Leadtime Inquiry form, which is accessible through both the Master Production Schedule (MPS) and Material Requirements Planning (MRP) systems.

You can use fixed or variable leadtimes for ingredients. The system subtracts fixed leadtimes directly from the requested date on the work request to calculate the start date of production. Fixed leadtime remains the same regardless of the quantity produced. However, variable leadtime adjusts according to the quantity produced.

The following explains important leadtime concepts you need to understand.

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 divided by the number of employees or machines for each operation at the branch/plant.

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 in the Time Basis Codes form. Time basis codes are user defined codes (system 30, type TB).
Resource units	Displays the available amount of capacity in a work center for the months in the calendar. For leadtime purposes, as the operation start and due dates are calculated, the available hours are used to calculate the operation start dates. You can maintain the resource units in the Work Center Resource Units form.
Prime load code	Determines whether a work center is labor or machine intensive. It also determines if the number of employees or number of machines is used to determine the daily resource units in the Resource Units table. You can maintain the prime load codes in the Work Center Revisions form. For calculating leadtimes, the following prime load code values are important: <ul style="list-style-type: none">• L = run labor hours• M = machine labor hours• B = run and setup hours• C = machine and setup hours
Purchased parts	You specify the level leadtime, which is equal to the cumulative leadtime. By default, the manufacturing leadtime, leadtime per unit, queue, and setup times for purchased parts are zero.

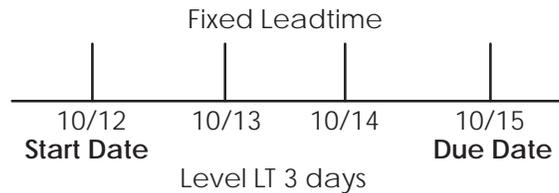
Work Order Start Dates

The system uses the level leadtime or leadtime per unit for an item defined on the Manufacturing Data form to calculate the start date of a work order based on the order's due date.

Fixed Leadtime

When an item has a fixed leadtime, the system uses its level leadtime value in back scheduling to find the work order start date.

For example, the system generates a planned order for product 101 with a due date of 10/15/98. The level leadtime 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 due date. The system assigns the order a start date of 10/12/98.



Variable Leadtime

When an item has a variable leadtime, the system uses the following calculation to determine the leadtime days:

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

For example, to determine the start date, the system counts back the leadtime days from the due date of planned orders. The system back schedules the due date, 10/15, 2 days to determine the start date of 10/13.

$$\begin{aligned} & (32 \times 1000 / 10,000) + 9 / 8 \\ & (3.2 + 10) / 8 = 2 \text{ days} \end{aligned}$$

The following table shows the values used in this example.

Due date	10/15
Leadtime per unit	32 hours
Order quantity	1000
Setup	1 hour
Queue	9 hours

Operation Start and Due Dates

The system calculates the operation start and due dates with the average number of hours per operation.

Fixed Leadtime

The system calculates the operation hours for a fixed leadtime using the following information:

- Level leadtime
- Hours per work day
- Number of employees per machine
- Number of operations

You must schedule the hours per operation according to the resource units within the entire level leadtime. This ensures that the start date of the first operation is the same as the start date of the work order. When the job moves to a different work center in the same day, the system decreases the resource units available by the percentage of the work day remaining. The system doesn't use resource units on the due date of the work order. Instead, it assumes the order was completed the end of the previous day.

For each operation, the system then schedules this average time into the appropriate work center based on the available hours from the Work Center Resource Units table.

The system schedules the last operation due date on the day before the work order due date.

Calculation

The system uses the following formula to calculate average time per operation:

$$\frac{\text{leadtime level days} \times \text{work hours per day (F3009)} \times \text{employees or machine}}{\text{number of operation sequences (blank operation sequence codes only)}} = \text{average time per operation}$$

The following table shows the values used in this example.

Work order due date	05/01/98
Average time per operation	25 hours
Operations in the routing	OP40 WC 200-204 due 4/30 start 4/27
	OP30 WC 200-101 due 4/27 start 4/24
	OP20 WC 200-204 due 4/24 start 4/21
	OP10 WC 200-101 due 4/21 start 4/17

WC Resource Units 200-204	8
WC Resource Units 200-101	8

Variable Leadtime

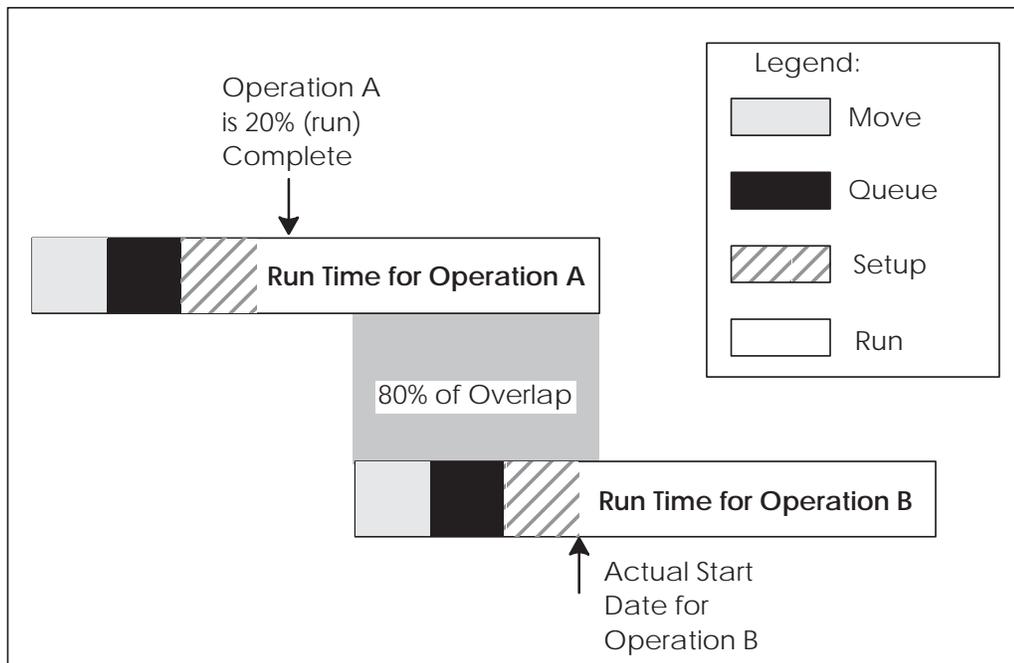
To determine variable leadtimes, the system schedules the actual hours from the work order routing instructions according to the same resource units rules for variable leadtime.

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 leadtime. The system applies queue time from the work order routine at the beginning of an operation, and applies move time at the end of an operation.

What Are Overlapping Operations?

One way to compress leadtimes 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 example below, 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.



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.

Overlapping and Concurrent Operations

If a percentage of overlap is specified in the Routing, 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.

Work order complete date	05/01/98
Last operation 20	24 hours
First operation 10	24 hours
Resource hours per day-per work center	8 hours
Operation overlap on 20	75%

	without overlap	with overlap
Operation 10		
start	04/27/98	04/27/98
complete	04/29/98	04/30/98
Operation 20		
start	04/30/98	04/28/98
complete	05/02/98	04/30/98

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 start date is then recalculated using the normal back scheduling 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)				←---	---	→--

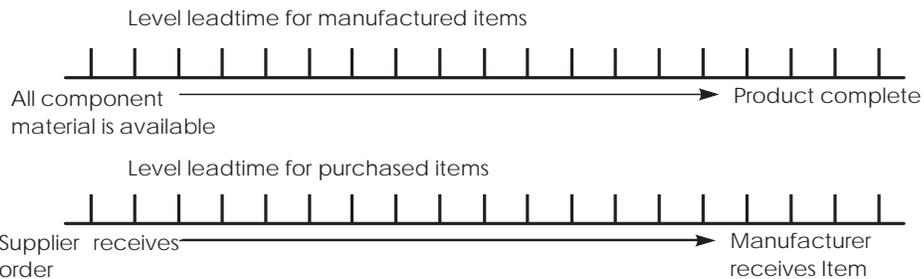
Calculating Leadtimes

The Leadtime Rollup program calculation updates the following:

- Level leadtime (if using manufacturing leadtime quantity)
- Manufacturing leadtime
- Cumulative leadtime
- Per unit leadtime
- Queue hours
- Setup hours

Level Leadtime

For a manufactured product, level leadtime is the number of workdays required to complete the product once all items are available. Level leadtime for a purchased item is the number of calendar days required for you to receive the item after the supplier receives your purchase order.



Calculation

The system uses the following formula to calculate level leadtime:

$$\text{SUM} \frac{((M \text{ or } L) / (E \text{ or } M)) \times \text{MLQ}}{\text{TIMB (Routing)}} + \text{setup} + \text{queue}$$

Work hours per day from Constants table

For example:

$$\frac{(8 / 1) \times 2,000}{10,000} + \frac{(12 / 1) \times 2,000}{10,000} + \frac{(12 / 1) \times 2,000}{10,000} \quad 1 + 9$$

$$8$$

$$(1.6 + 2.4 + 2.4 + 1 + 9) / 8 = 16.4 / 8 = 3 \text{ days level leadtime}$$

The following table shows the values used in this example.

Queue hours	9
Setup hours	1
(M or L)	Machine or labor hours based on the prime load code
L or B	Labor hours
M or C	Machine hours
SUM	Sum of all operations
TIMB	Time basis
MLQ	Manufacturing leadtime quantity
E	Number of employees in the work center
M	Number of machines in the work center

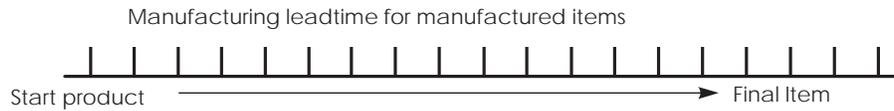
Manufacturing Leadtime

Manufacturing leadtime 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-hours, which includes:

- Order preparation time
- Queue time
- Setup time
- Run time
- Move time
- Inspection time
- Putaway time

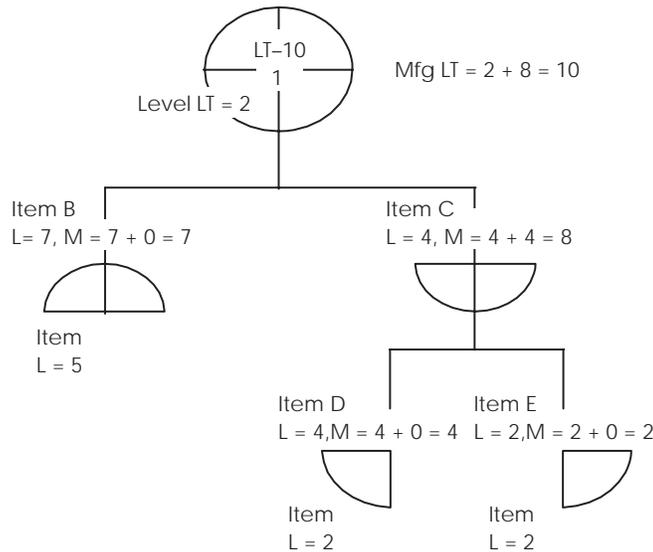
And, it is the total of the level leadtime for a product plus the longest manufacturing leadtime of any of its items.

Leadtimes for purchased items are not included in manufacturing leadtime calculations. The manufacturing leadtime for a purchased item is its level leadtime.



Calculation

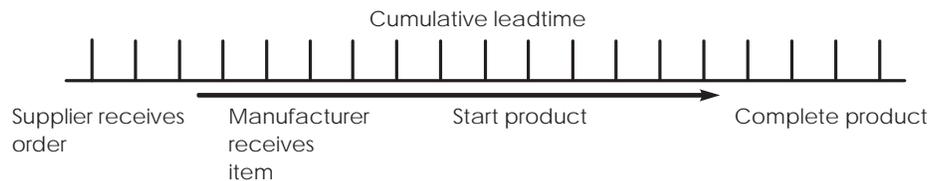
The system uses the following formula to calculate manufacturing leadtime.



Product LT-101 is manufactured from items A, B, C, and D.

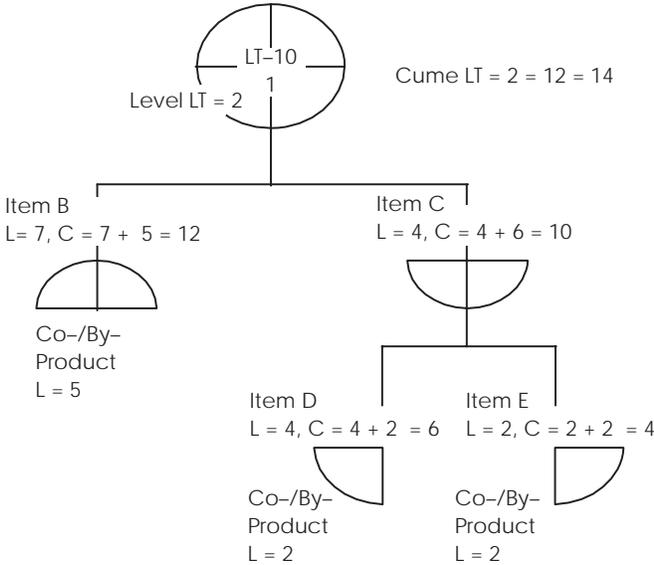
Cumulative Leadtime

Cumulative leadtime is the number of workdays required to acquire items and complete a product, from its lowest-level items to the final item, which is the level leadtime for a product plus the longest cumulative leadtime of any of its items. Unlike manufacturing leadtime, cumulative leadtime includes the leadtimes for purchased items. It covers both the time to acquire purchased items and the time to complete the product. The cumulative leadtime for a purchased item is its level leadtime.



Calculation

The system uses the following formula to calculate cumulative leadtime.



Product LT-101 is comprised of items A, B, C, and D.

Per Unit Leadtime

Per unit leadtime 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 leadtime per unit. The per unit leadtime 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 leadtime in hours.

Calculation

The system uses the following formula to calculate per unit leadtime.

$$\text{Sum} \left(\frac{\{ M \text{ or } L\} / \{ E \text{ or } M\} \times \text{TIMB}}{\text{TIMB (Routing)}} \right)$$

$$\frac{(8 / 1) \times 10,000}{10,000} + \frac{(12 / 1) \times 10,000}{10,000} + \frac{(12 / 1) \times 10,000}{10,000}$$

$$8 + 12 + 12 = 32 \text{ hours per unit leadtime}$$

The following table shows the values used in this example.

(M or L)	Machine or labor hours based on the prime load code
L or B	Labor hours
M or C	Machine hours
SUM	Sum of all operations
TIMB	Time basis
MLQ	Manufacturing leadtime quantity
E	Number of employees in the work center
M	Number of machines in work center

Queue Hours

Total queue hours is the sum of the move hours per routing and the queue hours per routing divided by the number of employees or machines in the Work Center Master table for each operation in the Routing table.

The system uses the prime load code to determine whether to divide by people or machines.

For example, the total queue hours for the product equals:

$$\frac{(1 + 2)}{1} \quad \frac{(2 + 4)}{1} \quad \frac{(0 + 0)}{1} = 9$$

OP 30 OP 60 OP 80

Setup Hours

Setup hours is the sum of the setup hours for each routing divided by the employees or machines. This ensures consistency during the backscheduling routing because the resource units for the work center are created based on those numbers.

For example, the standard setup hours equals:

$$\frac{1}{1} + \frac{0}{1} + \frac{0}{1} = 9$$

OP 30 OP 60 OP 80

Appendix D — Functional Servers

Several J.D. Edwards 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.

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.

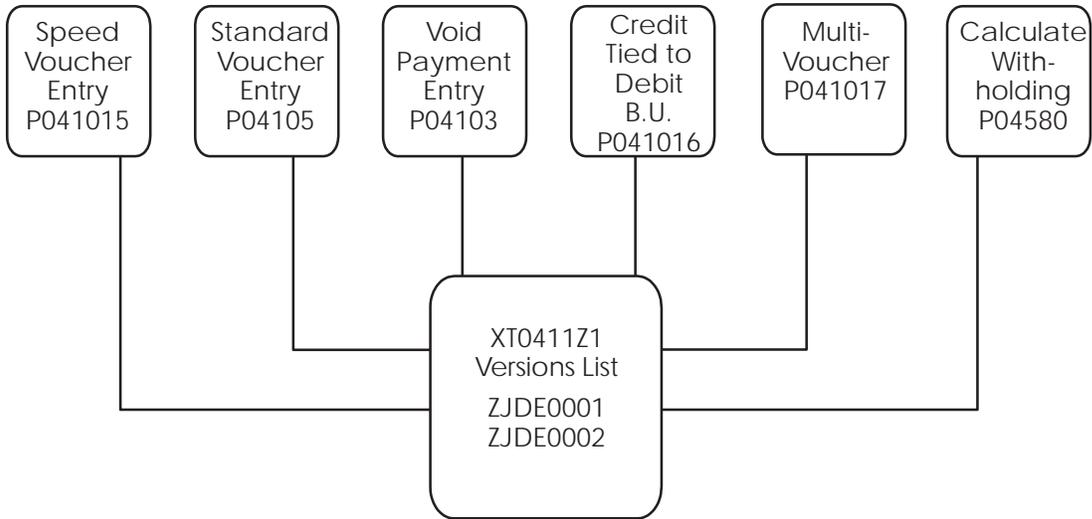
You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. J.D. Edwards provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.



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 *Technical Foundation Guide*.

Example: Voucher Processing Functional Server

The following graphic shows the programs that use the voucher processing functional server. J.D. Edwards provides two demo versions of the functional server, ZJDE0001 and ZJDE0002.



Glossary

Glossary

This glossary defines terms in the context of your use of JDE systems and the accompanying user guide.

access. To get to the information or functions provided by the system through menus, screens, and reports.

allocated material. Material on hand or on order that is assigned to specific future production or customer orders. Synonymous with *reserved material*.

alphabetic character. Represents data by using letters and other symbols from the keyboard (such as *&#). Contrast with *numeric character*.

alphanumeric character. Represents data in a combination of letters, numbers, and other symbols (such as *&#).

alternate operation. Replacement for a normal step in the manufacturing process or routing for an item.

alternate routing. A routing, usually less preferred than the primary routing, but resulting in an identical item.

assemble-to-order. A make-to-order product for which key components (bulk, semi-finished, intermediate, subassembly, fabricated, purchased, packaging, etc.) used in the assembly or finishing process are planned and stocked in anticipation of a customer order. Receipt of an order initiates assembly of the finished product. This is useful when a large number of finished products can be assembled from common components.

assembly. A group of subassemblies and/or parts that are put together and constitute a major subdivision for the final product. An assembly may be an end item or a component of a higher level assembly.

audit trail. The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records, and usually concludes with a report.

automatic accounting instruction (AAI). A code that points to an account in the chart of accounts. AAIs define rules for programs that automatically generate journal entries. This includes interfaces between Accounts Payable, Accounts Receivable, and Financial Reporting and the General Accounting system. Each system that interfaces with the General Accounting system has AAIs. For example, AAIs can direct the Post to General Ledger program to post a debit to a certain expense account and an automatic credit to a certain accounts payable account.

backflush. The deduction from inventory records of the component parts used in an assembly or subassembly by exploding the bill of material by the production count of assemblies produced.

back scheduling. A technique for calculating operation start dates and due dates. The schedule is computed starting with the due date for the order and working backward to determine the required start date and/or due dates for each operation.

backup copy. A copy of original data preserved on a magnetic tape or diskette as protection against destruction or loss.

batch. A group of like records or transactions that the computer treats as a single unit during processing. For identification purposes, the system usually assigns each batch a unique identifier, known as a "batch number."

batch bill of material. A bill of material in which the statement of quantity per is based on the standard batch quantity of the parent.

batch header. Information the computer uses as identification and control for a group of transactions or records in a batch.

batch job. A task or group of tasks you submit for processing that the system treats as a single unit during processing, for example, printing reports and purging files. The computer performs these tasks with little or no user interaction.

batch processing. A method by which the computer selects jobs from the job queue, processes them, and writes output to the outqueue. Contrast with *interactive processing*.

batch type. A code that designates which JDE system the associated transactions pertain to, thus controlling what records are selected for processing. For example, in the Post General Journal process, only unposted transaction batches with a batch type of G for General Accounting are selected for posting.

bill of material (BOM). A listing of all the subassemblies, parts, and raw materials that go into a parent assembly showing the quantity of each required to make the assembly. It is used in conjunction with the master production schedule to determine the items for which purchase requisitions and production orders must be released. There is a variety of display formats for bills of material, including: single level, multi level, indented, planning, and costed. Synonymous with *formula*, *recipe*, and *ingredients list*.

Boolean logic operand. In JDE's DREAM Writer, the parameter of the Relationship field. The Boolean logic operand tells the system to perform a comparison between certain records or parameters. Available operands are:

EQ = Equal To

LT = Less Than

LE = Less Than or Equal To

GT = Greater Than

GE = Greater Than or Equal To

NE = Not Equal To

NL = Not Less Than

NG = Not Greater Than

bubble chart. A diagram that attempts to display the interrelationships of systems, functions, or data in sequential flow. It derives its name from the circular symbols used to enclose the statements on the chart.

bucketed system. An MRP, DRP, or other time-phased system in which all time-phased data are accumulated into time periods or "buckets." If the period of accumulation is one week, then the system is said to have weekly buckets.

bucketless system. An MRP, DRP, or other time-phased system in which all time-phased data are processed, stored, and usually displayed using dated records rather than defined time periods or "buckets."

bulk issue. Parts issued from stores to work-in-process inventory, but not based on a job order. They are issued in quantities estimated to cover requirements of individual work centers and production lines. The issue may be used to cover a period of time or to fill a fixed-size container.

by-product. A material of value produced as residual of or incidental to the production process. The ratio of by-product to primary product is usually predictable. By-products may be recycled, sold as is, or used for other purposes.

CAD/CAP. Computer Assisted Design/Computer Assisted Programming. A set of automated programming tools for designing and developing systems. These tools automate system design, generate source code and documentation, enforce design standards, and help to ensure consistency throughout all JDE systems.

capacity requirements planning (CRP).

The function of establishing, measuring, and adjusting limits or levels of capacity. It is the process of determining in detail how much labor and machine resources are required to accomplish the tasks of production. Open shop orders and planned orders in the MRP system are input to CRP, which "translates" these orders into hours of work by work center and by time period.

category code. In user defined codes, a temporary title for an undefined category. For example, if you are adding a code that designates different sales regions, you could change *category code 4* to *Sales Region*, and define E (East), W (West), N (North), and S (South) as the valid codes. Category codes were formerly known as *reporting codes*.

character. Any letter, number, or other symbol that a computer can read, write, and store.

closed-loop MRP. A system built around material planning that includes the additional planning functions of sales and operations (production planning, master production scheduling, and capacity requirements planning). Once this planning phase is complete and the plans have been accepted as realistic and attainable, the execution functions come into play. These include the manufacturing control functions of input-output (capacity) measurement, detailed scheduling and dispatching, as well as anticipated delay reports from both the plant and supplier. The term "closed loop" implies that not only is each of these elements included in the overall system, but also that feedback is provided by the execution functions so that the planning can be kept valid at all times.

command. A character, word, phrase, or combination of keys you use to tell the computer to perform a defined activity.

component. Raw material, ingredient, part, or subassembly that goes into a higher level assembly, compound, or other item. This term may also include packaging materials for finished items.

component availability. The availability of component inventory for the manufacture of a specific parent order or group of orders or schedules.

constants. Parameters or codes that rarely change. The computer uses constants to standardize information processing by an associated system. Some examples of constants are allowing or disallowing out-of-balance postings and having the system perform currency conversions on all amounts. Once you set constants such as these, the system follows these rules until you change the constants.

Core. The central and foundational systems of JDE software, including General Accounting, Accounts Payable, Accounts Receivable, Address Book, Financial Reporting, Financial Modeling and Allocations, and Back Office.

costed bill of material. A form of bill of material that extends the quantity per of every component in the bill by the cost of the components.

crew size. The number of people required to perform an operation. The associated standard time should represent the total time for all crew members to perform the operation, not the net start to finish time for the crew.

cumulative leadtime. The longest planned length of time involved to accomplish the activity in question. For any item planned through MRP, it is found by reviewing the leadtime for each bill of material path below the item. Whichever path adds up to the greatest number defines cumulative leadtime. Synonymous with *aggregate leadtime*, *composite leadtime*, and *critical path leadtime*.

cumulative manufacturing leadtime.

The cumulative planned leadtime when all purchased items are assumed to be in stock.

cumulative MRP. The planning of parts and subassemblies by exploding a master schedule, as in MRP, except that the master scheduled items and therefore the exploded requirements are time phased in cumulative form. Usually these cumulative figures cover a planning year.

current cost. The current or replacement cost of labor, material, or overhead. Its computation is based on current performance or measurements, and it is used to address "today's" costs before production as a revision of annual standard costs.

cursor. The blinking underscore or rectangle on your screen that indicates where the next keystroke will appear.

cursor sensitive help. JDE's online help function, which allows you to view a description of a field, an explanation of its purpose, and, when applicable, a list of the valid codes you can enter. To access this information, move the cursor to the field and press F1.

data. Numbers, letters, or symbols that represent facts, definitions, conditions, and situations, that a computer can read, write, and store.

database. A continuously updated collection of all information a system uses and stores. Databases make it possible to create, store, index, and cross-reference information online.

data dictionary. A database file consisting of the definitions, structures, and guidelines for the usage of fields, messages, and help text. The data dictionary file does not contain the actual data itself.

default. A code, number, or parameter the system supplies when you do not enter one. For example, if an input field's default is N and the you do not enter something in that field, the system supplies an N.

demand. A need for a particular product or component. The demand could come from any number of sources, such as a customer order or forecast, or an interplant requirement or a request from a branch warehouse for a service part or for manufacturing another product.

dependent demand. Demand that is directly related to or derived from the bill of material structure for other items or end products. Such demands are calculated and need not and should not be forecast. A given inventory item may have both dependent and independent demand at any given time. For example, a part may simultaneously be the component of an assembly and also sold as a service part.

descriptive title. See *user defined code*.

detail. The individual pieces of information and data that make up a record or transaction. Contrast with *summary*.

detail file. A file which contains manufacturing, routing, or specification details. Contrast with *master file*.

direct labor. Labor that is specifically applied to the product being manufactured or utilized in the performance of the service.

direct material. Material that becomes a part of the final product in measurable quantities.

discrete manufacturing. Production of distinct items such as automobiles, appliances, or computers.

display. (1) To cause the computer to show information on a terminal's screen. (2) A specific set of fields and information that a JDE system might show on a screen. Some screens can show more than one display when you press a specified function key.

display field. A field of information on a screen that contains a system-provided code or parameter that you cannot change. Contrast with *input field*.

downstream operation. A task subsequent to the task currently being planned or executed.

DREAM Writer. Data Record Extraction And Management Writer. A flexible data manipulator and cataloging tool. You use this tool to select and sequence the data that is to appear on a programmed report.

edit. (1) To make changes to a file by adding, changing, or removing information. (2) The program function of highlighting fields into which you have entered inadequate or incorrect data.

effectivity date. The date on which a component or an operation is to be added or removed from a bill of material or an assembly process. The effective dates are used in the explosion process to create demands for the correct items. Normally, bill of material and routing systems provide for an effectivity "start date" (from) and "stop date" (thru), signifying the beginning and end of a particular relationship. Synonymous with *effective date*.

efficiency. A measure (as a percentage) of the actual output to the standard output expected. Efficiency measures how well something is performing relative to expectations; it does not measure output relative to any input. For example, if there is a standard of 100 pieces per hour and 780 units are produced in one eight-hour shift, the efficiency is 780 divided by 800, then multiplied by 100% or 97.5%.

electronic data interchange (EDI). The paperless (electronic) exchange of trading documents, such as purchase orders, shipment authorizations, advanced shipment notices, and invoices, using standardized document formats.

end item. A product sold as a completed item or repair part. Any item subject to a customer order or sales forecast. Synonymous with *end product*, *finished good*, and *finished product*.

engineering change order (ECO). A work order used to implement a change in a manufactured product. This can be a change in design, quantity or parts required, assembly or production process, and so forth.

engineer-to-order. Products whose customer specifications require unique engineering design or significant customization. Each customer order results in a unique set of part numbers, bills of material, and routings.

execute. See *run*.

exit. (1) To interrupt or leave a computer program by pressing a specific key or a sequence of keys. (2) An option or function key displayed on a screen that allows you to access another screen.

expedite. To "rush" or "chase" production or purchase orders that are needed in less than the normal leadtime. To take extraordinary action because of an increase in relative priority.

facility. A collection of computer language statements or programs that provides a specialized function throughout a system or throughout all integrated systems. Some examples DREAM Writer and FASTR.

FASTR. Financial Analysis Spreadsheet Tool and Report Writer. A report writer that allows you to design your own report specifications using the general ledger database.

feature. An accessory or attachment to an item.

field. (1) An area on a screen that represents a particular type of information, such as name, document type, or amount. Fields that you can enter data into are designated with underscores. See *input field* and *display field*. (2) A defined area within a record that contains a specific piece of information. For example, a vendor record

consists of the fields Vendor Name, Address, and Telephone Number. The Vendor Name field contains just the name of the vendor.

file. A collection of related data records organized for a specific use and electronically stored by the computer.

fixed cost. An expenditure that does not vary with the production volume, for example, rent, property tax, and salaries of certain personnel.

fixed order quantity. A lot-sizing technique in MRP or inventory management that will always cause planned or actual orders to be generated for a predetermined fixed quantity, or multiples thereof, if net requirements for the period exceed the fixed order quantity.

fixed overhead. Traditionally all manufacturing costs, other than direct labor and direct materials, that continue even if products are not produced. Although fixed overhead is necessary to produce the product, it cannot be directly traced to the final product.

fold area. An area of a screen, accessed by pressing F4, that displays additional information associated with the records or data items displayed on the screen.

forecast. An estimate of future demand. A forecast can be determined by mathematical means using historical data, created subjectively by using estimates from informal sources, or a combination of both techniques.

function. A separate feature within a facility that allows you to perform a specific task, for example, the field help function.

function key. A key you press to perform a system operation or action. For example, you press F4 to have the system display the fold area of a screen.

Gantt chart. A control chart designed to show graphically the relationship between planned performance and actual performance.

hard copy. A presentation of computer information printed on paper. Synonymous with *printout*.

header. Information at the beginning of a file. This information is used to identify or provide control information for the group of records that follows.

help instructions. Online documentation or explanations of fields that you access by pressing the Help key or by pressing F1 with your cursor in a particular field.

helps. See *help instructions*.

hidden selections. Menu selections you cannot see until you enter HS in a menu's Selection field. Although you cannot see these selections, they are available from any menu. They include such items as Display Submitted Jobs (33), Display User Job Queue (42), and Display User Print Queue (43). The Hidden Selections window displays three categories of selections: user tools, operator tools, and programmer tools.

implode. 1) Compression of detailed data in a summary-level record or report. 2) Tracing a usage and/or cost impact from the bottom to the top (end product) of a bill of material using where-used logic.

implosion. The process of determining the where-used relationship for a given component. Implosion can be single-level (showing only the parents on the next higher level) or multilevel (showing the ultimate top-level parent). Synonymous with *where used*. Contrast with *explosion*.

indented bill of material. A form of multilevel bill of material that lists the highest level parent items at the left margin and all the components going into these parents indented to the right of the margin. All subsequent levels of components are indented farther to the right. If a component is used in more than one parent within a given product structure, it will appear more than once, under every subassembly in which it is used.

indented where-used. A listing of every parent item, and the respective quantities required, as well as each of their respective parent items, continuing until the ultimate end item, or level-0 item, is listed. Each of these parent items is one that calls for a given component item in a bill of material file. The component item is shown closest to the left margin of the listing, with each parent indented to the right, and each of their respective parents indented even further to the right.

indirect costs. Costs that are not directly incurred by a particular job or operation. Certain utility costs, such as plant heating, are often indirect. An indirect cost is typically distributed to the product through the overhead rates.

indirect labor. Work required to support production in general without being related to a specific product, for example, sweeping the floor.

indirect materials. Items that become part of the final product or substances that are consumed in the manufacture of a product that have a negligible value relative to the value of the final product or the usage of which cannot be effectively determined. These components may or may not be included in the bill of material. Synonymous with *supplies*.

input. Information you enter in the input fields on a screen or that the computer enters from other programs, then edits and stores in files.

input field. An area on a screen, distinguished by underscores (_ _), where you type data, values, or characters. A field represents a specific type of information such as name, document type, or amount. Contrast with *display field*.

install system code. The code that identifies a JDE system. Examples are 01 for the Address Book system, 04 for the Accounts Payable system, and 09 for the General Accounting system.

interactive processing. A job the computer performs in response to commands you enter from a terminal. During interactive processing, you are in direct communication with the computer, and it might prompt you for additional information during the processing of your request. See *online*. Contrast with *batch processing*.

interface. A link between two or more JDE systems that allows these systems to send information to and receive information from one another.

issue. The physical movement of items from a stocking location and, often, the transaction reporting of this activity.

issue cycle. The time required to generate a requisition for material, pull the material from an inventory location, and move it to its destination.

item. Any unique manufactured or purchased part, material, intermediate, subassembly, or product.

item master record. The master record for an item. Typically, it contains identifying and descriptive data and control values (leadtimes, lot sizes, etc.) and may contain data on inventory status, requirements, planned orders, and costs. Item records are linked together by product structure records which define the bill of material for an item.

item number. A number that serves to uniquely identify an item. Synonymous with *part number*.

jargon. A JDE term for system specific help text. You base your help text on a specific reporting code you designate in the Data Dictionary Glossary. You can display this text as part of online help.

job. A single identifiable set of processing actions you tell the computer to perform. You start jobs by choosing menu selections, entering commands, or pressing designated function keys. An example of a computer job is check printing in the Accounts Payable system.

job queue. A screen that lists the batch jobs you and others have told the computer to process. When the computer completes a job, the system removes the job's identifier from the list.

justify. To shift information you enter in an input field to the right or left side of the field. Many of the facilities within JDE systems justify information. The system does this only after you press Enter.

Just-in-Time (JIT). A philosophy of manufacturing based on planned elimination of all waste and continuous improvement of productivity. The primary elements of zero inventories are to have only the required inventory when needed; to improve quality to zero defects; to reduce leadtimes by reducing setup times, queue lengths, and lot sizes; to incrementally revise the operations themselves; and to accomplish these things at minimum cost.

key field. A field common to each record in a file. The system uses the key field designated by the program to organize and retrieve information from the file.

Key General Ledger Account (Key G/L). See *automatic accounting instructions*.

labor cost. The dollar amount of added value due to labor performed during manufacturing.

leading zeros. A series of zeros that certain facilities in JDE systems place in front of a value you enter. This normally occurs when you enter a value that is smaller than the specified length of the field. For example, if you enter 4567 in a field that accommodates eight numbers, the facility places four zeros in front of the four numbers you enter. The result would look like this: 00004567.

leadtime. 1) A span of time required to perform a process (or series of operations).
2) In a logistics context, the time between

recognition of the need for an order and the receipt of goods. Individual components of leadtime can include order preparation time, queue time, move or transportation time, and receiving and inspection time.

leadtime offset. A technique used in MRP where a planned order receipt in one time period will require the release of that order in an earlier time period based on the leadtime for the item.

level. Every part or assembly in a product structure is assigned a level code signifying the relative level in which that part or assembly is used within the product structure. Normally the end items are assigned to level 0 with the components and subassemblies going into it assigned to level 1 and so forth. The MRP explosion process starts from level 0 and proceeds downward one level at a time.

level of detail. (1) The degree of difficulty of a menu in JDE software. The levels of detail for menus are as follows:

- A=Major Product Directories
- B=Product Groups
- 1=Basic Operations
- 2=Intermediate Operations
- 3=Advanced Operations
- 4=Computer Operations
- 5=Programmers
- 6=Advanced Programmers

Also known as *menu levels*.

(2) The degree to which account information in the General Accounting system is summarized. The highest level of detail is 1 (least detailed) and the lowest level of detail is 9 (most detailed).

master file. A computer file that a system uses to store data and information which is permanent and necessary to the system's operation. Master files might contain data or information such as paid tax amounts and vendor names and addresses.

load. The amount of planned work scheduled and actual work released for a facility, work center, or operation for a

specific span of time. It is usually expressed in terms of standard hours of work or, when items consume similar resources at the same rate, units of production.

lot. A quantity produced together and sharing the same production costs and resultant specifications.

lot number. A number that identifies a designated group of related items manufactured in a single run or received from a vendor in a single shipment.

lot number control. Assignment of unique numbers to each instance of receipt and carrying forth that number into subsequent manufacturing processes so that, in review of an end item, each lot consumed from raw materials through end item can be identified as having been used for the manufacture of this specific end item lot.

lot number traceability. Tracking parts by lot numbers to a group of items. This tracking can assist in the tracing of quality problems to their source.

lot traceability. The ability to identify the lot or batch numbers of consumption and/or composition for manufactured, purchased, and shipped items. This is a federal requirement in certain regulated industries.

low-level code. A number that identifies the lowest level in any bill of material at which a particular component may appear. Net requirements for a given component are not calculated until all the gross requirements have been calculated down to that level. Low-level codes are normally calculated and maintained automatically by the computer software. Synonymous with *explosion level*.

machine hours. The amount of time, in hours, that a machine is actually running. Machine hours, rather than labor hours, may be used for planning capacity and scheduling and for allocating costs.

make-to-order product. A product that is finished after receipt of a customer's order. The final product is usually a combination of standard items and items custom designed to meet the special needs of the customer. Frequently long leadtime components are planned prior to the order arriving in order to reduce the delivery time to the customer. Where options or other subassemblies are stocked prior to customer orders arriving, the term "assemble-to-order" is frequently used.

make-to-stock product. A product that is shipped from finished goods, "off-the-shelf," and therefore is finished prior to a customer order arriving. The master scheduling and final assembly scheduling are conducted at the finished goods level.

manufacturing leadtime. The total time required to manufacture an item, exclusive of lower level purchasing leadtime. It includes the time for order preparation, queue, setup, run, move, inspection, and put-away.

manufacturing resource planning (MRP II) A method for the effective planning of all resources of a manufacturing company. Ideally, it addresses operational planning in units, financial planning in dollars, and has a simulation capability to answer "what if" questions. It is made up of a variety of functions, each linked together: business planning, sales and operations (production planning), master production scheduling, material requirements planning, capacity requirements planning, and the execution support systems for capacity and material. Output from these systems is integrated with financial reports such as the business plan, purchase commitment report, shipping budget, inventory projections in dollars, etc. Manufacturing resource planning is a direct outgrowth and extension of closed-loop MRP.

master file. A computer file that a system uses to store data and information which is permanent and necessary to the system's

operation. Master files might contain data or information such as paid tax amounts and vendor names and addresses.

master planning. A classification scheme that includes the following activities: forecasting and order servicing (which together constitute demand management); production and resource planning; and master scheduling (which includes the final assembly schedule, the master schedule, and the rough cut capacity plan).

master production schedule (MPS). A detailed statement of how many items are planned to be produced and when. The MPS focuses on products to be made and, through the detailed planning system, identifies the resources (materials, work force, plant equipment and capital) needed and the timing of the need.

menu. A screen that displays numbered selections. Each of these selections represents a program. To access a selection from a menu, type the selection number and then press Enter.

menu levels. See *level of detail*.

menu masking. A security feature of JDE systems that lets you prevent individual users from accessing specified menus or menu selections. The system does not display the menus or menu selections to unauthorized users.

menu message. Text that appears on a screen after you make a menu selection. It displays a warning, caution, or information about the requested selection.

need date. The date when an item is required for its intended use. In an MRP system, this date is calculated by a bill of material explosion of a schedule and the netting of available inventory against that requirement.

next number facility. A JDE software facility you use to control the automatic numbering of such items as new G/L accounts, vouchers, and addresses. It lets you specify your desired numbering system

and provides a method to increment numbers to reduce transposition and typing errors.

nonsignificant part numbers. Part numbers that are assigned to each part but do not convey any information about the part. They are identifiers, not descriptors. Contrast with *significant part numbers*.

numeric character. Represents data using the numbers 0 through 9. Contrast with *alphabetic character* and *alphanumeric character*.

offline. Computer functions that are not under the continuous control of the system. For example, if you were to run a certain job on a personal computer and then transfer the results to a host computer, that job would be considered an offline function. Contrast with *online*.

online. Computer functions over which the system has continuous control. Each time you work with a JDE system-provided screen, you are online with the system. Contrast with *offline*. See *interactive processing*.

online information. Information the system retrieves, usually at your request, and immediately displays on the screen. This information includes items such as database information, documentation, and messages.

operand. See *Boolean logic operand*.

operation number. A sequential number, usually two, three, or four digits long, such as 010, 020, 030, and so forth, that indicates the sequence in which operations are to be performed within an item's routing.

operations sequence. The sequential steps for an item to follow in its flow through the plant. For instance, operation 1: cut bar stock; operation 2: grind bar stock; operation 3: shape; operation 4: polish; operation 5: inspect and send to stock. This information is normally maintained in the routing file.

option. A numbered selection from a JDE screen that performs a particular function or task. To select an option, you enter its number in the Option field next to the item you want the function performed on. When available, for example, option 4 allows you to return to a prior screen with a value from the current screen.

output. Information the computer transfers from internal storage to an external device, such as a printer or a computer screen.

output queue. A screen that lists the spooled files (reports) you have told the computer to write to an output device, such as a printer. After the computer writes a file, the system removes that file's identifier from the online list.

overhead. Costs incurred in the operation of a business that cannot be directly related to the individual products or services produced. These costs, such as light, heat, supervision, and maintenance, are grouped in several pools (department overhead, factory overhead, general overhead) and distributed to units of product or service by some standard allocation method.

overlap. The percentage that an operation overlaps the previous operation in the sequence. For example, a 20% overlap means that the step can begin when the previous step is 80% complete.

override. The process of entering a code or parameter other than the one provided by the system. Many JDE systems offer screens that provide default field values when they appear. By typing a new value over the default code, you can *override* the default. See *default*.

parameter. A number, code, or character string you specify in association with a command or program. The computer uses parameters as additional input or to control the actions of the command or program.

part. Generally, a material item that is used as a component and is not an assembly, subassembly blend, intermediate, and so forth.

password. A unique group of characters that you enter when you sign on to the system that the computer uses to identify you as a valid user.

pegging. In MRP, the capability to identify for a given item the sources of its gross requirements and/or allocations. Pegging can be thought of as "live where-used" information.

picking. The process of withdrawing from stock the components to make the products or the finished goods to be shipped to a customer.

pick list. A document that lists the material to be picked for manufacturing or shipping orders.

planned order. A suggested order quantity, release date, and due date created by MRP processing when it encounters net requirements. Planned orders are created by the computer, exist only within the computer, and may be changed or deleted by the computer during subsequent MRP processing if conditions change. Planned orders at one level will be exploded into gross requirements for components at the next lower level. Planned orders, along with released orders, serve as input to capacity requirements planning to show the total capacity requirements by work center in future time periods.

planning bill of material. An artificial grouping of items and/or events in bill of material format, used to facilitate master scheduling and/or material planning. Sometimes called a pseudo bill of material.

planning family. A group of end items whose similarity of design and manufacture facilitates being planned in aggregate.

planning horizon. The amount of time the master schedule extends into the future. This is normally set to cover a minimum of

cumulative leadtime plus time for lot sizing low-level components and for capacity changes of primary work centers.

primary location. The designation of a certain storage location as the standard, preferred location for an item.

printout. A presentation of computer information printed on paper. Synonymous with *hard copy*.

print queue. An online list (screen) of written files that you have told the computer to print. Once the computer prints the file, the system removes the file's identifier from the online list. See *output queue*.

priority. The relative importance of jobs. The sequence in which jobs should be worked on.

process manufacturing. Production that adds value by mixing, separating, forming, and/or performing chemical reactions. It may be done in either batch or continuous mode.

processing options. A feature of the JDE DREAM Writer that allows you to supply parameters to direct the functions of a program. For example, processing options allow you to specify defaults for certain screen displays, control the format in which information gets printed on reports, change the way a screen displays information, and enter "as of" dates.

program. A collection of computer statements that tells the computer to perform a specific task or group of tasks.

program specific help text. Glossary text that describes the function of a field within the context of the program.

prompt. (1) A reminder or request for information displayed by the system. When a prompt appears, you must respond in order to proceed. (2) A list of codes or parameters or a request for information provided by the system as a reminder of the type of information you should enter or action you should take.

PTF. Program Temporary Fix. A representation of changes to JDE software, which your organization receives on magnetic tapes or diskettes.

purchased part. An item sourced from a supplier.

purge. The process of removing records or data from a system file.

record. A collection of related, consecutive fields of data the system treats as a single unit of information. For example, a vendor record consists of information such as the vendor's name, address, and telephone number.

reporting code. See *category code*.

reverse image. Screen text that displays in the opposite color combination of characters and background from what the screen typically displays (for example, black on green instead of green on black).

quantity per. The quantity of a component to be used in the production of its parent. This value is stored in the bill of material and is used to calculate the gross requirements for components during the explosion process of MRP.

queue. 1) In computers: See job queue, output queue, and print queue.
2) In manufacturing: A waiting line. The jobs at a given work center waiting to be processed. As queues increase, so do average queue time and work-in-process inventory.

rated capacity. The demonstrated capability of a system. Traditionally, capacity is calculated from such data as planned hours, efficiency, and utilization. The rated capacity is equal to hours available x efficiency x utilization.

rate-based scheduling. A method for scheduling and producing based on a periodic rate, for example, daily, weekly or monthly. Traditionally, this method has been applied to high-volume and process industries. The concept can be applied within job shops using cellular layouts and

mixed-model level schedules where the production rate is matched to the selling rate.

raw material. Purchased items or extracted materials that are converted via the manufacturing process into components and/or products. receipt. 1) The physical acceptance of an item into a stocking location. 2) The transaction reporting of this activity.

record. A collection of related, consecutive fields of data the system treats as a single unit of information. For example, a vendor record consists of information such as the vendor's name, address, and telephone number.

release. The authorization to produce or ship material that has already been ordered.

repetitive manufacturing. A form of manufacturing where various items with similar routings are made across the same process whenever production occurs. Products may be made in separate batches or continuously. Production in a repetitive environment is not a function of speed or volume.

replacement parts. Parts that can be used as substitutes that differ from completely interchangeable service parts in that they require some physical modification, such as cutting, drilling, and so forth, before they can replace the original part.

revision level. A number or letter representing the number of times a document has been changed.

rework order. A manufacturing order to rework and salvage defective parts or products.

resource requirements planning (RRP). The process of converting the production plan and/or the master production schedule into capacity needs for key resources: work force, machinery, warehouse space,

suppliers' capabilities, and in some cases, money. Comparison of capacity required of items in the MPS to available capacity is usually done for each key resource. Synonymous with *rough cut capacity planning*.

routing. A set of information detailing the method of manufacture of a particular item. It includes the operations to be performed, their sequence, the various work centers to be involved, and the standards for setup and run. In some companies, the routing also includes information on tooling, operator skill levels, inspection operations, testing requirements, and so forth.

run. To cause the computer to perform a routine, process a batch of transactions, or carry out computer program instructions.

run size. See standard batch quantity.

safety stock. 1) In general, a quantity of stock planned to be in inventory to protect against fluctuations in demand and/or supply. 2) In the context of master production scheduling, the additional inventory and/or capacity planned as protection against forecast errors and/or short-term changes in the backlog. Overplanning can be used to create safety stock.

scrap. Unusable material that results from the production process. It is material outside of specifications and of such characteristics that rework is impractical.

scrap factor. A percentage factor in the product structure used to increase gross requirements to account for anticipated loss within the manufacture of a particular product. Synonymous with *scrap rate*.

scroll. To use the roll keys to move screen information up or down a screen at a time. When you press the Rollup key, for instance, the system replaces the currently displayed text with the next screen of text if more text is available.

selection. Found on JDE menus, selections represent functions that you can access from a given menu. To make a selection, you type its associated number in the Selection field and press Enter.

setup. 1) The work required to change a specific machine, resource, work center, or line from making the last good piece of unit A to the first good piece of unit B; 2) Teardown of the just completed production and preparation of the equipment for production of the next scheduled item.

setup cost. The costs such as scrap costs, calibration costs, downtime costs, and lost sales associated with preparing the resource for the next product.

setup leadtime. The time needed to prepare a manufacturing process to start. Setup leadtime may include run and inspection time for the first piece.

shelf life. The amount of time an item may be held in inventory before it becomes unusable.

shop calendar. See work day calendar.

shop floor control (SFC). A system for utilizing data from the shop floor to maintain and communicate status information on shop orders (manufacturing orders) and on work centers. The major subfunctions of shop floor control are: 1) assigning priority of each shop order, 2) maintaining work-in-process quantity information, 3) conveying shop order status information to the office, 4) providing actual output data for capacity control purposes, 5) providing quantity by location by shop order for work-in-process inventory and accounting purposes, and 6) providing measurement of efficiency, utilization, and productivity of the work force and machines.

shrinkage. Reductions of actual quantities of items in stock, in process, or in transit. The loss may be caused by scrap, theft, deterioration, evaporation, and so forth.

shrinkage factor. A percentage factor in the item master record that compensates for expected loss during the manufacturing cycle either by increasing the gross requirements or by reducing the expected completion quantity of planned and open orders. The shrinkage factor differs from the scrap factor in that the former affects all uses of the part and its components and the scrap factor relates to only one usage. Synonymous with *shrinkage rate*.

significant part numbers. Part numbers that are intended to convey certain information, such as the source of the part, the material in the part, the shape of the part, and so forth. These usually make part numbers longer. Contrast with *nonsignificant part numbers*.

simulation. 1) The technique of using representative or artificial data to reproduce in a model various conditions that are likely to occur in the actual performance of a system. It is frequently used to test the behavior of a system under different operating policies. 2) Within MRP II, using the operational data to perform "what if" evaluations of alternative plans to answer the question, "Can we do it?" If yes, the simulation can then be run in the financial mode to help answer the question, "Do we really want to?" Synonymous with *what-if analysis*.

single level bill of material. A display of those components that are directly used in a parent item. It shows only the relationships one level down.

single-level where-used. A list of each parent in which a specific component is directly used and in what quantity. Done by imploding the bill of material.

softcoding. A JDE term that describes an entire family of features that allows you to customize and adapt JDE software to your business environment. These features lessen

the need for you to use computer programmers when your data processing needs change.

software. The operating system and application programs that tell the computer how and what tasks to perform.

special character. Representation of data in symbols that are neither letters nor numbers. Some examples are * & # /.

spool. The function by which the system puts generated output into a storage area to await printing and processing.

spooled file. A holding file for output data waiting to be printed or input data waiting to be processed.

standard batch quantity. The quantity of a parent that is used as the basis for specifying the material requirements for production. The "quantity per" is expressed as the quantity to make the standard batch quantity, not to make only one of the parent. It is often used by manufacturers that use some components in very small quantities or by process-related manufacturers. Synonymous with *run size*.

standard costs. The target costs of an operation, process, or product including direct material, direct labor, and overhead charges.

standard cost system. A cost system that uses cost units determined before production. For management control purposes, the standards are compared to actual costs and variances are computed.

standard hours. The length of time that should be required to 1) set up a given machine or operation and 2) run one part/assembly/batch/end product through that operation. This time is used in determining machine and labor requirements. It is also frequently used as a basis for incentive pay systems and as a basis of allocating overhead in cost accounting systems.

subassembly. An assembly that is used at a higher level to make up another assembly.

subfile. An area on the screen where the system displays detailed information related to the header information at the top of the screen. Subfiles might contain more information than the screen can display in the subfile area. If so, use the roll keys to display the next screen of information. See *scroll*.

submit. See *run*.

summary. The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many of the JDE systems offer screens and reports that are summaries of the information stored in certain files.

superflush. A technique to relieve all components down to the lowest level using the complete bill of material, based on the count of finished units produced and/or transferred to finished good inventory.

system. A collection of computer programs that allows you to perform specific business tasks. Some examples of applications are Accounts Payable, Inventory, and Order Processing. Synonymous with *application*.

throughput. 1) The total volume of production through a facility (machine, work center, department, plant, or network of plants). 2) In theory of constraints, the rate at which the system (firm) generates money through sales.

time series. A set of data that is distributed over time, such as demand data in monthly time period occurrences.

unit cost. Total labor, material, and overhead cost for one unit of production, for example, one part, one gallon, or one pound.

unit of measure. The unit in which the quantity of an item is managed, such as by weight, each, box, package, case, and so forth.

use as is. A classification for material that has been dispositioned as unacceptable per the specification, yet can be used.

user defined code. The individual codes you create and define within a user defined code type. Code types are used by programs to edit data and allow only defined codes. These codes might consist of a single character or a set of characters that represents a word, phrase, or definition. These characters can be alphabetic, alphanumeric, or numeric. For example, in the user defined code type table ST (Search Type), a few codes are C for Customers, E for Employees, and V for Vendors.

user defined code (type). The identifier for a table of codes with a meaning you define for the system (for example, ST for the Search Type codes table in Address Book). JDE systems provide a number of these tables and allow you to create and define tables of your own. User defined codes were formerly known as *descriptive titles*.

user identification (user ID). The unique name you enter when you sign on to a JDE system to identify yourself to the system. This ID can be up to 10 characters long and can consist of alphabetic, alphanumeric, and numeric characters.

valid codes. The allowed codes, amounts, or types of data that you can enter in a specific input field. The system checks, or edits, user defined code fields for accuracy against the list of valid codes.

variable. Changing, not constant or fixed. For example, variable costs are costs that change according to varying conditions.

variable overhead. All manufacturing costs that vary directly with production volume, other than direct labor and direct materials. Variable overhead is necessary to produce the product, but cannot be directly assigned to a specific product.

variance. The difference between the expected (budgeted or planned) value and the actual value.

video. The display of information on your monitor screen. Normally referred to as the *screen*.

vocabulary overrides. A JDE facility that allows you to override field, row, or column title text on a screen-by-screen or report-by-report basis.

where used list. A listing of every parent item that calls for a given component, and the respective quantity required, from a bill of material file. Synonymous with *implosion*.

window. A software feature that allows a part of your screen to function as if it were a screen in itself. Windows serve a dedicated purpose within a facility, such as searching for a specific valid code for a field.

work center. A specific production facility, consisting of one or more people and/or machines with identical capabilities, that can be considered as one unit for purposes of capacity requirements planning and detailed scheduling. Synonymous with *load center*.

work day calendar. A calendar used in inventory and production planning functions that consecutively numbers only the working days so that the component and work order scheduling may be done based on the actual number of work days available. Synonymous with *planning calendar*, *manufacturing calendar*, and *shop calendar*.

work in process (WIP). A product or products in various stages of completion throughout the plant, including all material from raw material that has been released for initial processing up to completely processed material awaiting final inspection and acceptance as finished product. Many accounting systems also include the value

of semi-finished stock and components in this category. Synonymous with *in-process inventory*.

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