

Guide
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WORLD SOFTWARE®

Shop Floor Control

Discrete Manufacturing

Release
A8.1

JDEdwards®



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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 the current release 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

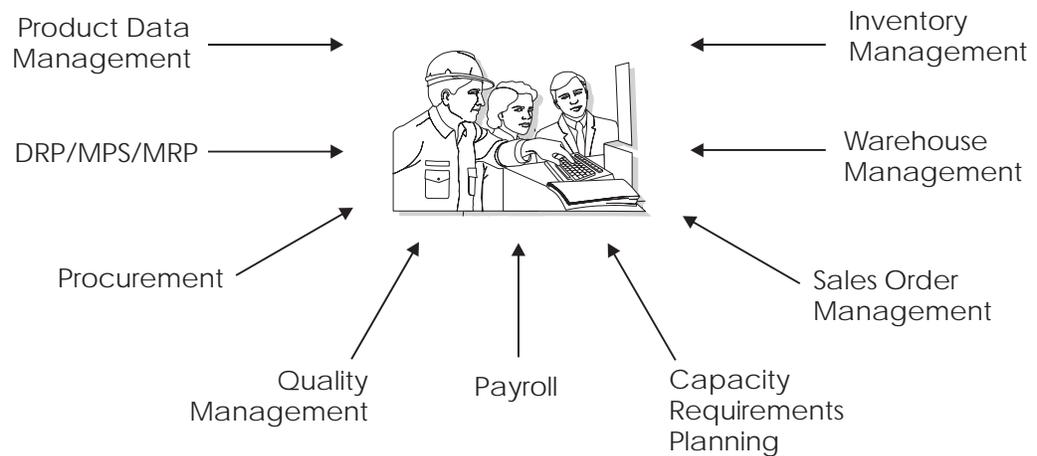
System Overview

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.

Shop Floor Control



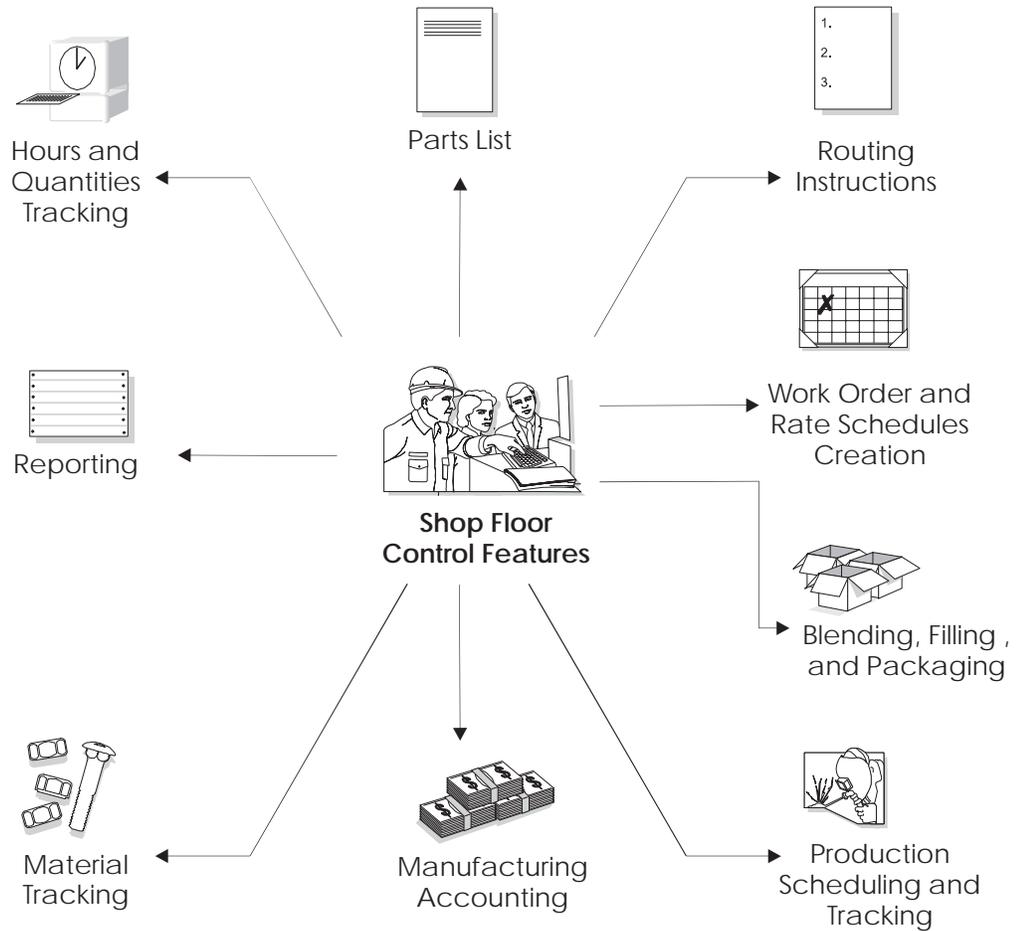
DPS = Distribution Requirements Planning
MPS = Master Production Schedule
MRP = Material Requirements Planning



- The *Product Data Management* system provides information about bills of material, work centers, and routings.
- The *Inventory Management* system allows you to track materials between inventory or storage locations and the shop floor. You can perform inventory issues, commitments, and completions, and track order quantities throughout the production process.
- The *Sales Order Management* system allows you to generate work orders when you enter a sales order and updates sales information from within the Shop Floor Control system.
- The *Capacity Requirements Planning* system reads the routings for work orders and rate schedules and monitors the load on the work centers involved. This allows you to effectively manage the loads on your work centers to maximize production and meet scheduled demand.
- The *Payroll* system interface allows single entry of employees' hours. You can record hours and quantities per work request or per employee to accommodate both piece-rate and hourly rate employees.
- The *Procurement* system allows you to automatically generate purchase orders for subcontracted operations on your routings.
- The *Distribution Requirements Planning*, *Master Production Scheduling*, and *Material Requirements Planning* systems provide suggested purchase and manufacturing orders required to maintain a valid production schedule.
- The *Warehouse Management* system allows you to originate picking requests through Manufacturing systems, which further enhances the automated method of tracking inventory movement within a warehouse.

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.

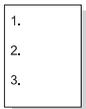


Hours and Quantities Tracking



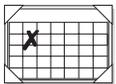
- Enter and track time and quantities completed and scrapped by work order and by employee
- Allocate and track resource usage by work center per calendar month
- Review and analyze reports of work orders with detail by operation of standard versus actual for:
 - Setup, labor, and machine time
 - Quantity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

Routing Instructions



- Generate a routing automatically when a work order is processed
- Use master routings or non-standard routings for items and indicate when to use each item
- Change the work centers and procedures for each operation on the routing
- Modify the sequence and status of each operation on the routing
- Make real-time modifications to routings instructions
- Display quantity ordered, completed, and scrapped for each operation

Work Order and Rate Creation



- Enter work orders and rates manually
- Create work orders and rates automatically from Material Requirements Planning (MRP) by answering action messages, or from sales order entry and select kits for assemble-to-order environments
- Generate shop floor paperwork automatically, including standard parts lists and routing instructions
- Differentiate work orders and rates by type, priority, and status
- Group work orders by a parent number (a useful feature for job numbers that contain many work order numbers)
- Automatically generate purchase orders for sub-contracted operations on the routing for work orders and rates

Blending, Filling, and Packaging



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

Production Scheduling and Tracking



- Schedule work center production for rate schedules, work orders, or both
- Track and compare planned production schedules against actual schedules
- Use the online scheduling workbench to review, dispatch, and update production scheduling information in real-time
- Calculate start and complete dates for each work order by operation from the Shop Floor Control Routing Instructions table (F3112)
- Maintain the rate schedule after using rate based MRP

Manufacturing Accounting



- Plan and track 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

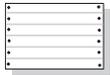
Material Tracking



- Create a parts list automatically when you process a work order
- Display the quantity on order, on hand, and available for each part
- Access detailed information about supply and demand quantities
- Check the availability of the components required to manufacture a parent item and generate a shortage list
- Issue the parts to a work order using a manual, preflush, or backflush method
- Backflush both quantities of components issued to a work order and the labor expended with pay point operations
- Enter and track completions to inventory when parent items are completed
- Attach the parts list and routing instructions to the work order and print shop floor paperwork

- Track where lots are used, and split and trace where lots come from with advanced lot control
- Maintain and monitor work orders created from the Configuration Management system for configured items
- Generate an inventory shortage list by work order and item
- Enter issue transactions for inventory items associated with a work order
- Generate a picking request in the Warehouse Management system to select a location and move the inventory (this occurs after the Manufacturing system creates a parts list without a work center attached, and checks availability)

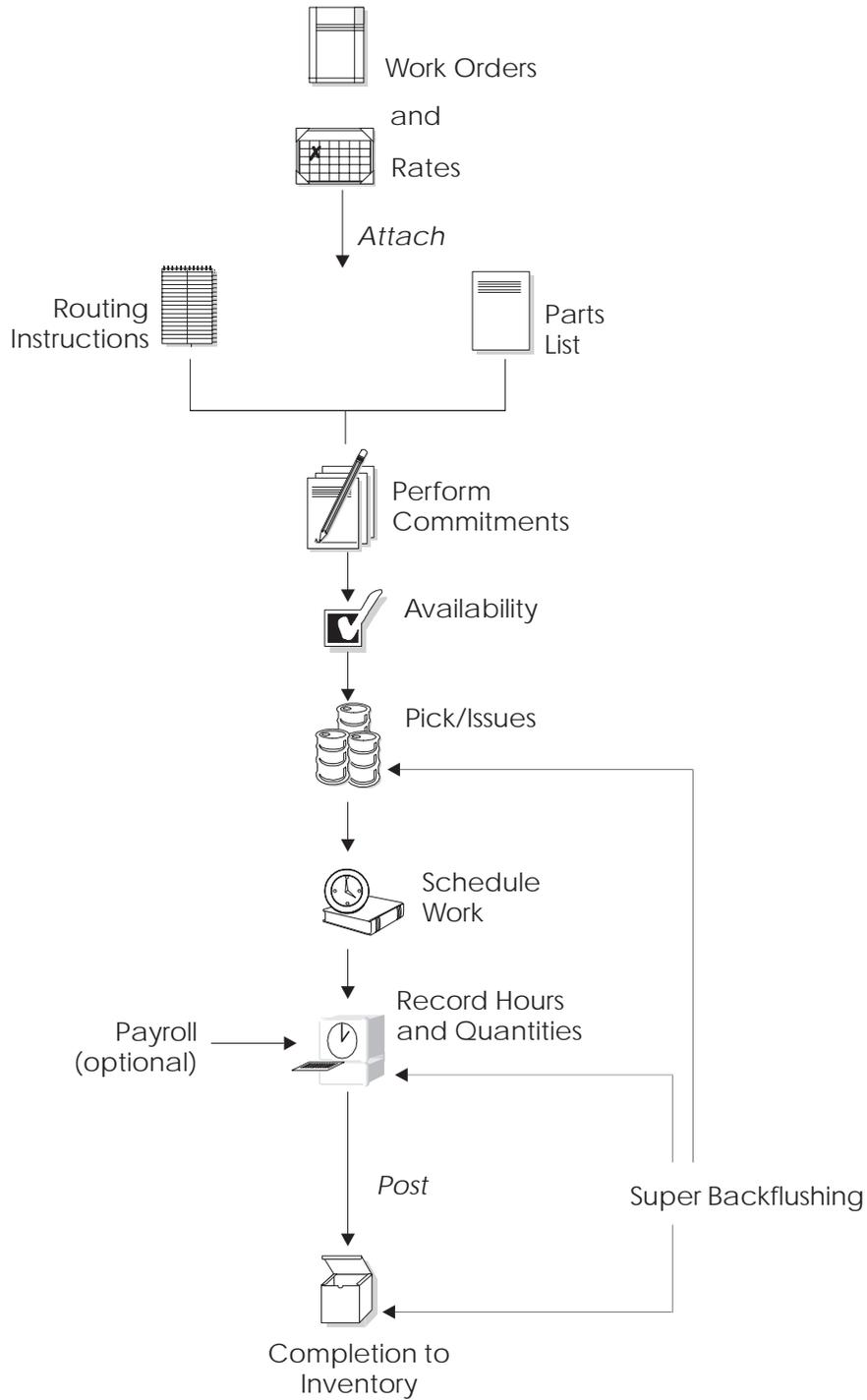
Reporting



- Run reports that compare actual values with planned values and indicate the variance between the two
- Run shortage reports by item or work order to identify potential manufacturing constraints due to a lack of availability of required components
- Print shop floor paperwork, such as work orders, parts lists, and routings for items
- Review daily shop work lists to monitor job status, identify queue problems at work centers, and flag other areas, such as engineering changes or lost material

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 for Shop Floor Control

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.
Generic Message/Rate (F00191)	Contains codes that correspond to a text message. In the Shop Floor Control system, this is used for routing text on a work order.
Account Master (F0901)	Maintains the account data for the general ledger.
Account Ledger (F0911)	Stores the transaction records for the general ledger.
Work Center Master (F30006)	Contains detail data about all defined work centers.
Bill of Materials Master (F3002)	Defines and maintains warehouse (plant level) information about bills of materials, such as quantities of components, as well as features, options, and levels of detail for each bill.
Item Cost Component Add-Ons (F30026)	Contains frozen standard costs for journal entry creation for work orders.
Routing Master (F3003)	Stores routing information, including operation sequences, and work centers, as well as run, setup, and machine time.
Job Shop Manufacturing Constants (F3009)	Contains general branch/plant information.
Kanban Master (F3016)	Contains the set of kanban cards associated with an item. Each kanban defines the supplying location, consuming location, quantity, and unit of measure. The system uses next numbers to control the kanban identification number. If the system pulls the item from an external source, the supplier's number is included.
Work Order Variance (F3102)	Stores the work order variance that shows the difference in costs from when the standards were set at the beginning of the accounting period.

Work Order Serial Numbers (F3105)	Contains the fields that identify work order assemblies with lot serial numbers.
Item/Line Relationship Master (F3109)	Stores the relationships between items and production lines. The system uses one of the records as the default rate generation rule.
Schedule Quantity Detail (F31091)	Contains the daily quantities making up a work order or a rate. The system uses this file for scheduling and sequencing production lines and work centers.
Shop Floor Control Parts List (F3111)	Contains the components used on a work order.
Shop Floor Control Routing Instructions (F3112)	Contains the instructions specific for manufacturing work orders.
Work Order Time Transactions (F31122)	Stores the labor transactions reported on a work order.
Shortage Maintenance Master (F3118)	Contains component shortages for work orders.
MPS/MRP/DRP Message (F3411)	Contains the supply and demand relationship among the branches.
Forecast (F3460)	Contains the forecast data that Resource Requirements Planning (RRP) validates. It is then used as input to MPS/MRP/DRP.
Inventory Constants (F41001)	Used to control day-to-day transactions that occur within the Inventory Management system. Directs the nature of certain integrated operations between Inventory Management and other systems, such as Sales Order Management, Procurement, and General Accounting.
Item Master (F4101)	Stores basic information about each item defined for inventory, such as description, search name, and units of measure.
Item Branch (F4102)	Defines and maintains warehouse or plant level information, such as costs, quantities, category codes, and physical locations.
Item Location (F41021)	Specifies all inventory locations for an item.

Item Cross Reference (F4104)	Enables you to relate item numbers for a specific purpose.
Lot Master (F4108)	Defines the actual potency of a lot.
Item Ledger (F4111)	Stores transaction history for all items.
Item History (F4115)	Stores usage data for items optional in some Shop Floor Control system transaction programs.
Warehouse Requests (F4600)	Stores putaway, picking, and replenishment movement requests.
Warehouse Suggestions (F4611)	Contains the warehouse requests after they have been processed by putaway, picking, or replenishment.
Work Order Master (F4801)	Stores the work order information, such as item numbers, quantities, and dates.
Work Order Instruction/Disposition (F4802)	Contains text and instructions for specific work orders that are identified by different record types.

Types of Manufacturing

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

- Discrete
- Process

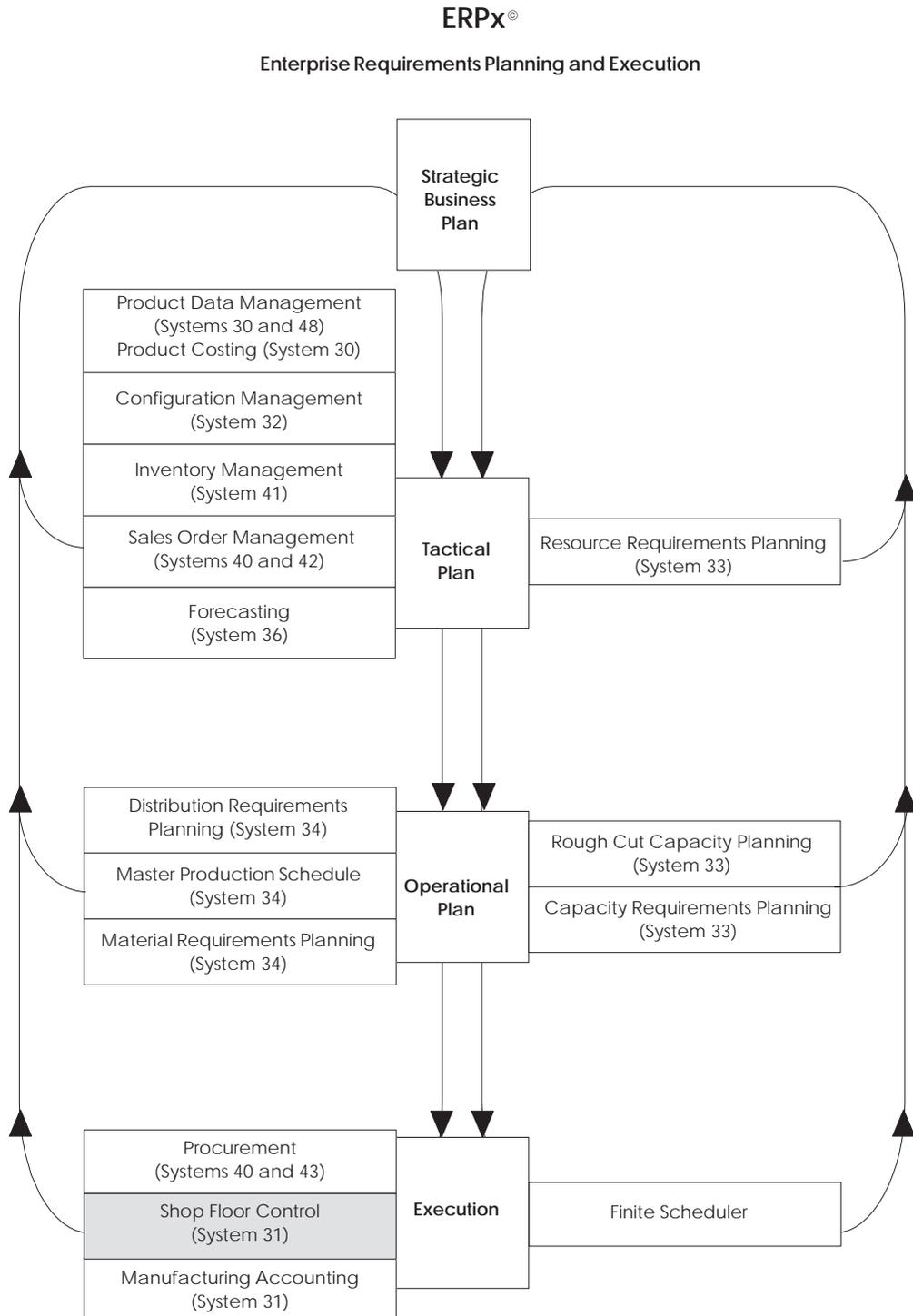
Both discrete and process manufacturing use bills of material and routings. The bills of material contain individual parts or components, such as a nut, bolt, wire, plastic, or metal part of a fixed or variable quantity. Products can be broken down into subassemblies that go into various larger assemblies.

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 ERPx product group.



Sales Order Management System

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

There are three levels of sales order entry:

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

Sales order entry has operational guidelines in which it must:

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

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 and associated sales order fields 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 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 for Sales Order Management

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, Procurement, and General Accounting.

Procurement System

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

Features of Procurement

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 and non-inventory purchasing. This allows purchase order lines to send receipt costs to inventory or to a general ledger account or a project.
- Budget checking for general ledger account purchases. You can use one of three budget checking methods against user-selected budget ledger type.
- Requisition management. This permits an order to flow through an online requisition process prior to the actual approval of the order for purchase.
- User defined order types, transaction types, and transaction flows. This gives wide-ranging flexibility for setup and customization without programming changes.
- Unit or extended receipt costing. The system can calculate the correct extended amount or unit cost, depending upon your usage.
- Ease of data changes for order line delivery. You can also make data changes for multiple orders at the same time.

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 Procurement receipts provides for changes to purchase order cost based upon customer invoice
- Buyers' reports and forms display purchase order quantities based on item-specific reorder point and economic order quantity
- Purchase Order Generator to simplify purchase order creation, including online view of economic order quantity, re-order point, and days stock available
- Change order controls, which furnish detail records of changes
- Model purchase orders and blanket orders providing easy duplication and release of prior orders without additional order entry keying

Tables for Procurement

The major tables for the Procurement 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 Procurement 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 Procurement 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.
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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, Procurement, and General Accounting.

Menu Overview

Menu Overview – Shop Floor Control Discrete Manufacturing

Manufacturing System G3
Shop Floor Control G31



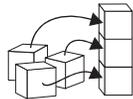
Daily Operations

- Daily Order Preparation – Discrete G3111
- Daily Order Reporting – Discrete G3112
- Daily Processing – Repetitive G3115



Periodic Operations

- Periodic Functions – Discrete G3121



Setup Operations

- Shop Floor Control Setup G3141



Advanced and Technical Operations

- Advanced Shop Floor Control G3131

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 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 commitments
- Working with commitments



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

Blending, Filling, and Packaging

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

See Also

- *Bulk Stock Management*

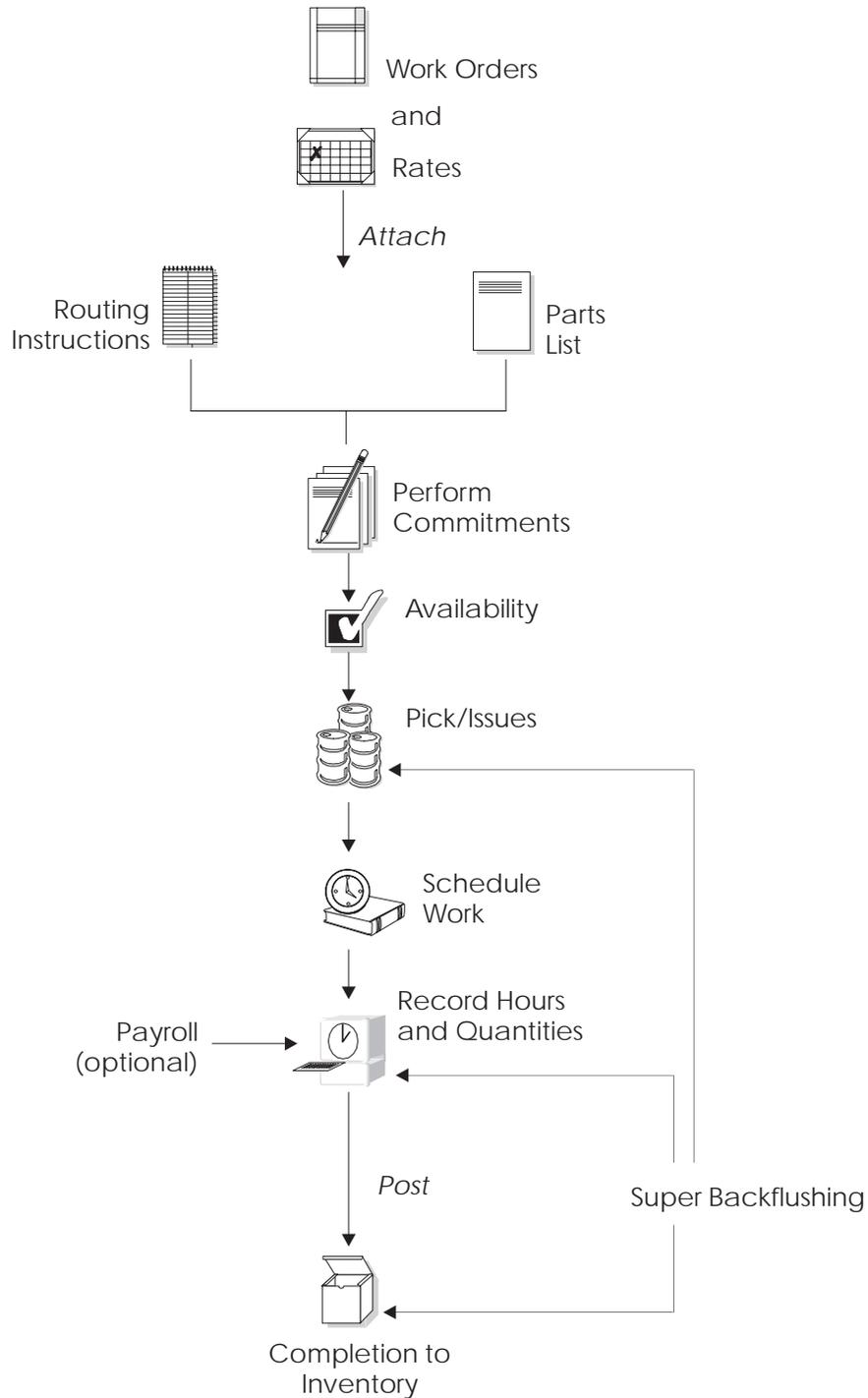
How Are Units of Measure Used?

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

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

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

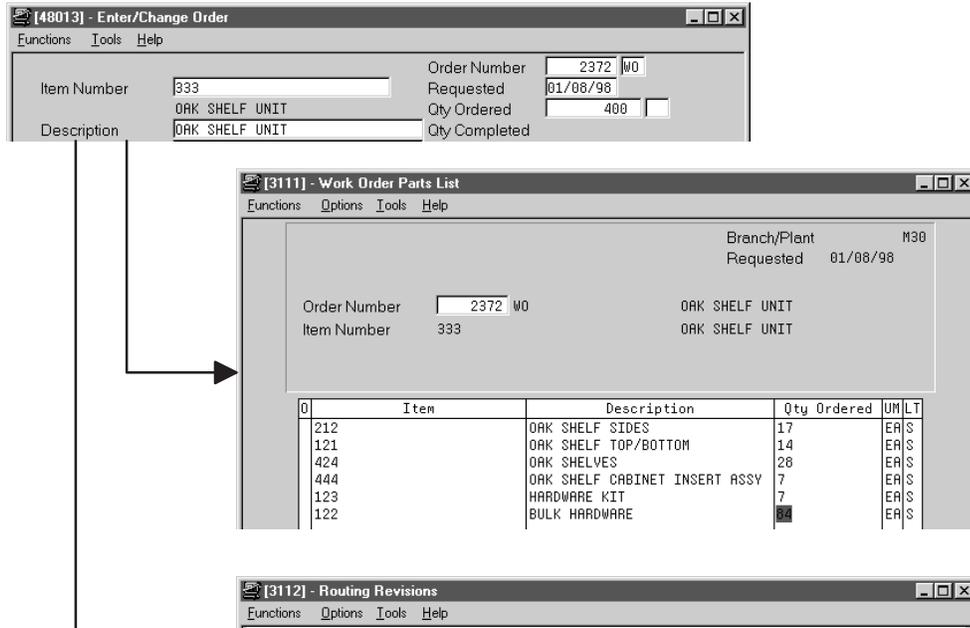
You then attach the parts list and routing instructions either manually or using a batch program. This batch program also allows you to process multiple work orders, which includes:

- 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.

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

333						
212	424	123	122	121	444	Component
(2)	(4)	(1)	(12)	(2)	(1)	Quantity Per
OP 10	OP 10	OP 10	OP 10	OP 25	OP 30	Operation

Order with no shrink, scrap or yield – quantity = 10:

212	424	123	122	121	444	Component
20	40	10	120	20	10	Quantity Per

Order with 10% shrink on parent 333 – quantity = 10

212	424	123	122	121	444	Component
22	44	11	132	22	11	Quantity Per

Order with 10% scrap on component item 444 – quantity = 10

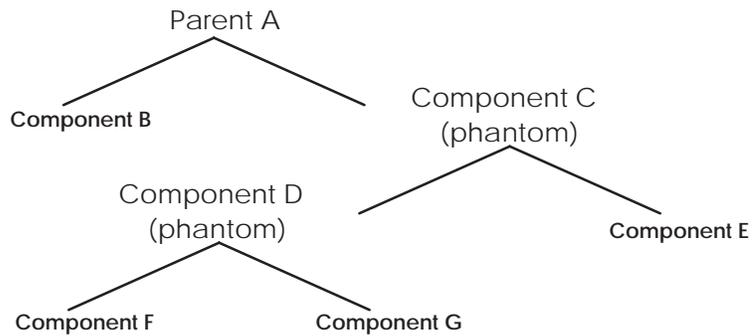
212	424	123	122	121	444	Component
20	40	10	120	20	11	Quantity Per

Phantom Items

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

- Are not planned by MRP
- Can be any lower-level component in the bill for a parent item
- Can be used to define a subassembly within a parent item when the subassembly is not stocked in inventory nor planned by MRP, but is consumed into the parent

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



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

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

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.

[4312] - Enter Receipts by PO

Functions Options Tools Help

Mode (F) Base Co USD Currency Code USD Branch/Plant *
 Exchange Rate _____ G/L Date 07/01/98
 Order Number 11723 0P
 Supplier 2004344 Universal Supply
 Receipt Date 07/11/97
 Receipt Document _____
 Supplier Remark _____
 Container I.D. _____ Skip To Line _____

0	Item/Account	Quantity	UM	Unit Cost	Extended Cost
1	333*0P25	10	EA	4.4700	44.70

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

3103 Routing Quantities and Status

Functions Tools Help

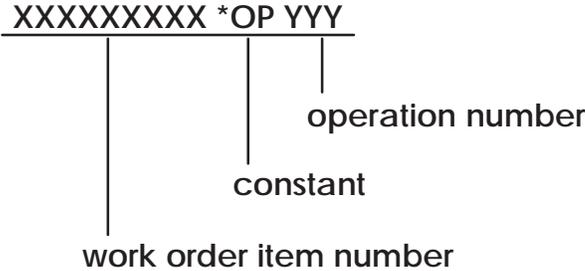
Item 333 Outside Processing

Order Number	Oper TY	Oper Seq	... Quantities ...	OP
Number	TY	Seq	Completed	Scrapped
133997	W0	25.00	10	EA

Current Values EA

F3=Exit F15=Production 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 be generated when you process the work order using the batch program, or by running the batch program in print only mode.

What Is Backscheduling?

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

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

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

[3112] - Routing Revisions

Functions Options Tools Help

Branch/Plant M30
Requested 09/08/98

Order Number 65066 W0
Item Number 5120

Oak Desk With Chair
Oak Desk With Chair

0	Work Center	Oper Seq	Description	Run Hours		Cons Prod
				Machine	Labor	
	200-204	10.00	Assemble frame		20.00	Cons
	200-204	20.00	Assemble sides/back to frame		16.00	Cons
	200-204	30.00	Attach drawer slide kits		15.20	Cons
	200-204	40.00	Attach top		7.20	Cons
	200-202	50.00	Finish		2.00	Cons
	200-204	60.00	Package with chair		12.00	Cons

Opt 5=Text F4=Full Details F6=Item Search F10=Copy Routings F24=More

[3112] - Routing Revisions

Functions Options Tools Help

Branch/Plant M30
Requested 09/08/98

Order Number 65066 W0
Item Number 5120

Oak Desk With Chair
Oak Desk With Chair

0	Work Center	Oper Seq	Description	Run Hours		Cons Prod	
				Machine	Labor		
	200-204	10.00	Assemble frame		20.00	Cons	
			Start 08/27/98 Op Typ	Rel P0	Setup Hours	2.50	
			Requested 08/28/98 Pay Pt 0	Equip	Queue Hours	.50	
			Next Oper	Craft	Line/Cell	Move Hours	2.50
			Overlap %	Crew 1.0	Inst No	Time Basis	1
			Yield %	.00	Cum %	.00	Supplier
			Repl Loc	Resource		UOM	
	200-204	20.00	Assemble sides/back to frame		16.00	Cons	
			Start 08/28/98 Op Typ	Rel P0	Setup Hours		
			Requested 09/01/98 Pay Pt B	Equip	Queue Hours		
			Next Oper	Craft	Line/Cell	Move Hours	
			Overlap %	Crew 1.0	Inst No	Time Basis	1
			Yield %	.00	Cum %	.00	Supplier
			Repl Loc	Resource		UOM	

Opt 5=Text F4=Full Details F6=Item Search F10=Copy Routings F24=More

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

- Retrieves the resource units for the work center of the routing operation. Resource units are factored (that is, increased or decreased) by the resource unit efficiency and utilization percentages.
- Consumes the hours (queue, run, then move hours), using the calculations for either fixed or variable leadtime.

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

Blending, Filling, and Packaging

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

See Also

- *Bulk Stock Management Guide*

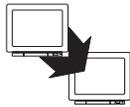
Create Work Orders

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



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

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

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

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

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

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

Entering work order headers includes the following tasks:

- Entering identifying information
- Entering scheduling information
- Entering descriptive information (optional)
- Entering planning information (optional)
- Entering responsible persons (optional)
- Entering sold to information (optional)
- Entering accounting information (optional)
- Entering a revision level (optional)

Before You Begin

- Use the processing options for order entry to control how the system processes information on the order and to access associated information, such as the order's parts list and routing instructions.
- Set up the shop floor calendar for the work days and months that the order activity will span, including leadtimes. See *Setting Up Shop Floor Calendar*.
- Set up the document types that you use to identify different work order types in the following places:
 - User Defined Codes (00/DT) table
 - Processing options of the Supply/Demand Inclusion Rules program, if the new document types are to be used in other parts of the Manufacturing system
- Enter the unit of measure in the processing options that you want the system to use for backscheduling the routing operations for an item.
- Check the availability of the parts that are needed to complete a work order before you create the work order. See *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.

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. Blank fields appear when there is no sales order associated with your work order.

Adding description details

You can access Work Order Detail Entry to add detail to the work order description.

Manufacturing Accounting system

If you use 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 Enter/Change Order.

See *Reviewing Summarized Work Orders* in the *Product Costing and Manufacturing Accounting Guide*.

Blending, filling, and packaging

Use a processing option for the Enter/Change Order program for the blending and filling processes. You specify the program ID of the Formula Optimization routine the system calls when you select to optimize the formula from the parts list.

When you generate a work order parts list the system checks the allowed products matrix for an incompatibility between the parts list and the blending tank. The incompatibilities appear as errors.

See *Bulk Stock Management Guide*.

Quality Management test results

As you create a work order, you can:

- Use Preference Profiles to maintain tests for the parent item.
- Maintain generic text to indicate when to test materials, and with which test.
- Enter test results for the tests defined for the parent item.

See *Working with Test Results* in the *Quality Management Guide* for more information.

► 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.

Field	Explanation
Branch/Plant	<p>A code that represents a high-level business unit. It can be used to reference a branch or plant that might have departments or jobs, which represent lower-level business units (data item MCU), subordinate to it. For example:</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>For Shop Floor Control and Manufacturing Accounting:</p> <p>This field identifies the branch/plant in which the item resides.</p>

► To enter scheduling information

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

- The start date of the first routing operation
- The calculated start date for the work order, which indicates difficulty in back scheduling

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.
Qty 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>

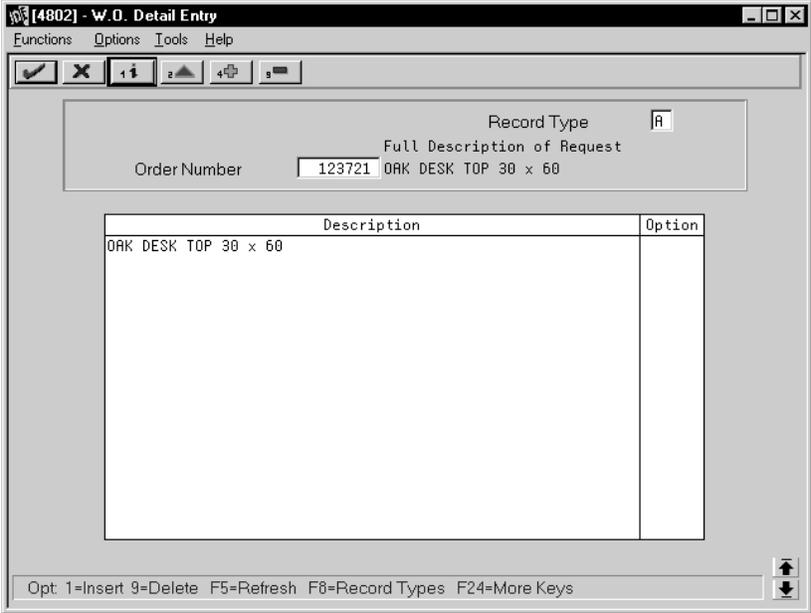
► To enter descriptive information

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

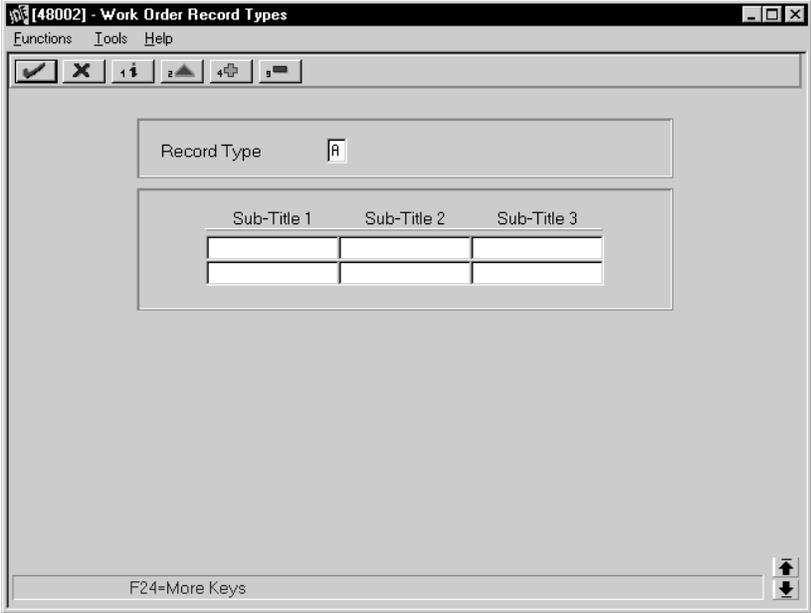
2. Choose Work Order Detail Entry.



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/Rate Category Codes". The window contains a form with the following fields and values:

- W.O./Rate Number: 123721
- ORAK DESK TOP 30 x 60
- 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:
- Category 11:
- Category 12:
- Category 13:
- Category 14:
- Category 15:
- Category 16:
- Category 17:
- Category 18:
- Category 19:
- Category 20:
- AFE:

The status bar at the bottom of the window displays: F2=Standard Desc Text F5=Update w/Redisplay 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	<p>A user defined code (00/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> <p>..... <i>Form-specific information</i></p> <p>For Shop Floor Control:</p> <p>If you leave this field blank on order entry, the system uses the value specified in the processing options.</p>
Priority	<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/SN	<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 W.O. No	<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 reporting <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 reporting
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>
Sub-Title Description	<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>
Category Code 1	<p>A user defined code (00/W1) that indicates the current stage or phase of development for a work order. You can assign a work order to only one phase code at a time.</p> <p>NOTE: Certain forms contain a processing option that allows you to enter a default value for this field. If you enter a default value on a form for which you have set this processing option, the system displays the value in the appropriate fields on any work orders that you create. The system also displays the value on the Project Setup form. You can either accept or override the default value.</p>
JDE Consulting – Status	<p>A user defined code (system 00, type W6) that indicates the status of the work order.</p>
JDE Consulting – Service Type	<p>A user defined code (system 00, type W7) that indicates the service type for the work order.</p>

Field	Explanation
JDE Consulting – 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>
JDE Consulting – 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>
Address Number – 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 allows you to enter a default value for this field based on values for Category Codes 1 (Phase), 2, and 3. Set up the default values on the Default Managers & Supervisor form. After you set up the default values and the processing option, the information displays automatically on any work orders you create if the category code criterion is met. You can either accept or override the default value.</p>
Message Number	<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>
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 (00/SS) that describes the status of a work order or engineering change order. Any status change from 90 thru 99 automatically updates the date completed.</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>Y Yes, freeze the order</p> <p>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>The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).</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 SO	<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:

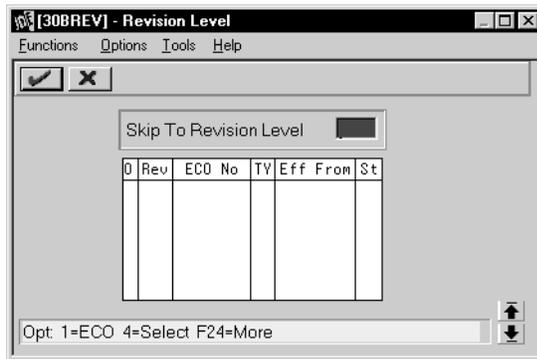
- Charge to Cost Center
- Cost Code

Field	Explanation
Charge to CC	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant.</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 accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field 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 you do not enter a value 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
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 Manufacturing Work Order Entry

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. _____

4. Enter a '1' to protect the lot number on the parts list. _____
If left blank, the lot number will remain input capable.

CHARGE TO BUSINESS UNIT DEFAULT:

5. Enter a '1' to default the Charge to Business Unit from the Job number in the Business Unit Master file (F0006). If left blank, the Branch/Plant will be used. _____

BILL AVAILABILITY:

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

DEFAULT PROCESSING:

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

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:

8. 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:

9. 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:

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

PROCESS MANUFACTURING PROCESSING:

11. 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:

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

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

COMMITMENT AND SUBSTITUTE PROCESSING:

14. 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:

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

SERIAL NUMBER PROCESSING:

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

PRIOR REVISIONS:

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

WAREHOUSE PROCESSING:

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

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

20. 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) _____

21. 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.

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. _____

ECS PROCESSING:

25. Enter the program ID of the Formula Optimization routine to be called when the function key to Optimize the formula is selected from the Ingredients List Program (P3111). _____

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 allows you to specify a replacement item if you set the processing option to R.

Attaching the Parts List Interactively



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

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

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

- Interactively, using a function key
- Manually, entering the parts
- In batch mode, using Order Processing

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

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

- Specify or change a substitute item or quantities from different locations
- Choose substitute items and their quantities on hand when a component shortage is encountered

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

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

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 to change a part on the bill of material or attach different substitutes. Or, you can change these parts after interactive or batch attachment.

See Processing Work Orders.

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.

See Processing Work Orders.

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:

- 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

Access Work Order Component Master Text 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.

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

Warehouse Management interface

If you use Warehouse Management and generate 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.

When you recreate the parts list and the items are in warehouse two things can 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

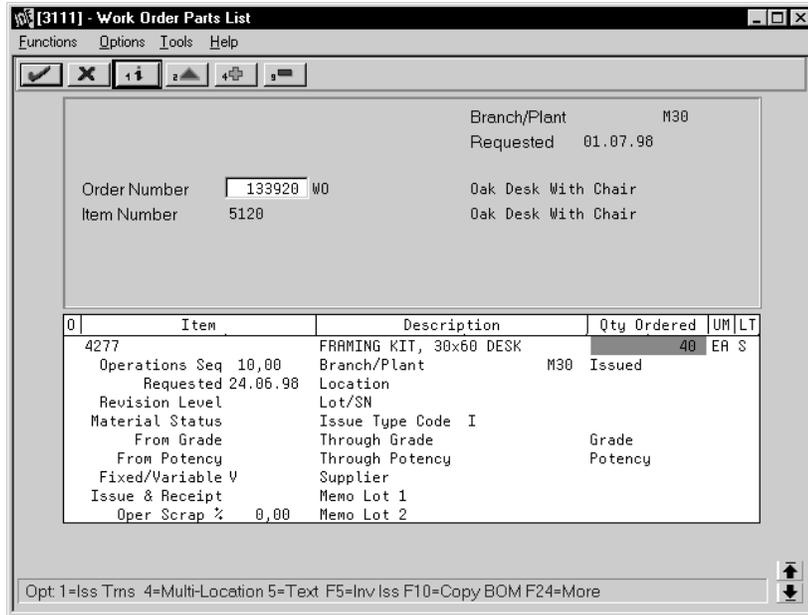
► **To attach the parts list**

On Enter/Change Order

1. Choose Work Order Parts List.

Item	Description	Qty Ordered	UM	LT
4277	FRAMING KIT, 30x60 DESK	40	EA	\$
4133	SIDE ASSY, 30x30 OAK DESK	80	EA	\$
3999	BACK, OAK, 30x60, DESK	20	EA	\$
4133	SIDE ASSY, 30x30 OAK DESK	80	EA	\$
3999	BACK, OAK, 30x60, DESK	20	EA	\$
3881	DRAWER SLIDES & HARDWARE, 30in	140	EA	\$
3980	CENTER DRAWER FOR 30x60 DESK	20	EA	\$
3981	SIDE DRAWER, 30x60 DESK	76	EA	\$
3982	FILE DRAWER, DESK, OAK	80	EA	\$
3881	DRAWER SLIDES & HARDWARE, 30in	140	EA	\$

2. On Work Order Parts List, choose the appropriate function key to copy the bill of material.
3. Add the bill of material to the parts list.
4. Review the following fields:
 - Item
 - Quantity Ordered
 - Description
 - Quantity Ordered Unit of Measure
 - Line Type
5. Access the detail area.



6. Review the following fields:

- Revision Level
- Material Status
- Location
- Lot
- Operations Sequence
- Requested
- Fixed/Variable
- Issue Type Code
- Branch/Plant
- From Potency
- Through Potency
- From Grade
- Through Grade
- Supplier
- Issue and Receipts

Field	Explanation
Description	A brief description of an item, a remark, or an explanation.

Field	Explanation
Location	A code that identifies inventory locations in a branch/plant. You define the format of the location identifier by branch/plant.
LT	<p>A code that controls how the system processes lines on a transaction. It controls the systems with which the transaction interfaces (General Ledger, Job Cost, Accounts Payable, Accounts Receivable, and Inventory Management). It also specifies the conditions under which a line prints on reports and is included in calculations. Codes include:</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 W Work order
UM	<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>
Operations Seq	<p>In routings, this number is used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, this number designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing for the item. The Shop Floor Control system uses this field in the backflush/preflush by operation process.</p> <p>In engineering change orders, this number is 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>

Field	Explanation
Revision Level	The current revision level of a component on the bill of material. It is usually used with an engineering change notice or order (ECN or ECO).
Material Status	A code (table 31/MS) that identifies the current status of a particular component on the work order.
Fixed/Variable	<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 Quantity V 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>
Issue Type Code	<p>A code that defines how the system issues each component in the bill of material from stock. In shop floor control, it indicates how the system issues a part to a work order. Valid codes are:</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	A code that indicates the potency of the lot, which is expressed as a percentage of active or useful material (for example, the percentage of alcohol in a solution). The actual potency of a lot is defined in the Lot Master table (F4108).

Field	Explanation
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>
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 do not meet the minimum acceptable potency. The system does not allow you to sell items that do not meet 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>
From Grade	<p>A code (system 40, type LG) that indicates the minimum grade that is acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items with grades that do not meet the minimum grade acceptable. The system does not allow you to sell items with grades that do not meet the minimum acceptable level.</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>

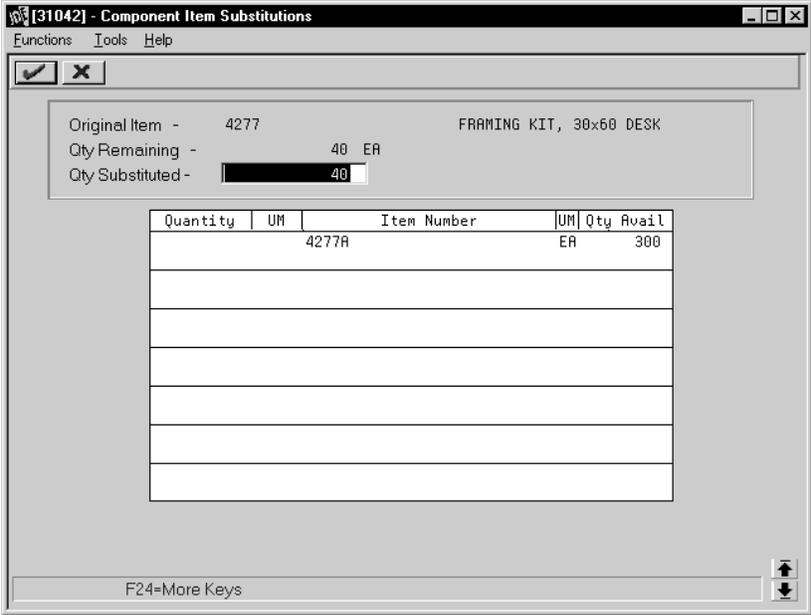
Field	Explanation
Address Number – Input (Mode Unknown)	The address number you want to retrieve. You can use the short format, the long format, or the tax ID (preceded by the indicators listed in the Address Book constants).
Issue and Receipt	Indicates if an item is under a pay on consumption agreement. blank Purchases will be paid upon receipt of the item. 1 Purchases will be paid when issued to the plant floor.
Oper Scrap %	The system uses this value to increase or decrease the amount of materials to account for loss within the operation. The system updates this value on Enter/Change Bill of Material when you run the Planned Yield Update program. The system calculates this value by compounding the yield percentages from the last operation to the first operation. Use a processing option in Enter/Change Routing to enable the system to calculate the component scrap percent.

To enter substitutions

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

On Enter/Change Order

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



3. On Component Item Substitutions, complete the following field:
 - Quantity
4. Review the following default information:
 - Quantity Substituted
 - Unit of Measure
 - Item Number
 - Description
 - Quantity Available

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

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

► To choose substitute items

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

On Enter/Change Order

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

[3111S] - Substitute Availability

Functions Tools Help

Component Item 3881 Brn/Plt M30
 Quantity 140 EA DRAWER SLIDES & HARDWARE, 30in

Quantity	UM	Item	UM	Quantity	Quantity
				On Hand	Available
60	EA	3881	EA	1250	60

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.

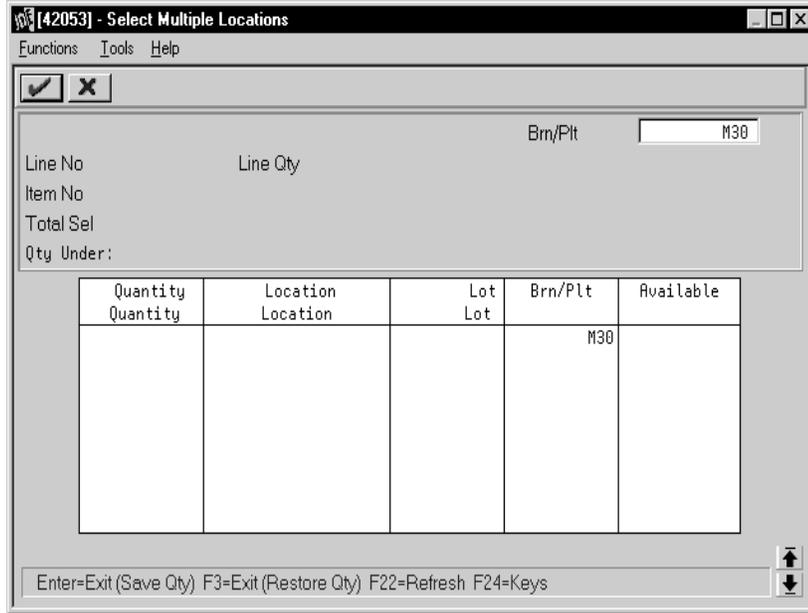
The system calculates this quantity using the substitute item setup values (fixed or variable, partial, and so on).

► To enter multiple locations

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

On Enter/Change Order

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



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

- Quantity
- Location
- Lot
- Branch/Plant

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

Attaching the Routing Instructions Interactively



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

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

After you enter your work order header, you attach 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 Order Processing

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 to change a step in the operation that the Order Processing program assigns, or you can change this after interactive or batch attachment.

See 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.

See Processing Work Orders.

Locating a routing

When you locate a routing, the system displays the operations that are effective at the start date of the work order and those that are standard instructions or text lines. If a routing is not attached to the work order, no values appear in the fields.

Creating a purchase order for outside operations

You must create a purchase order for any step in the routing instructions that involves a subcontractor. Do this using the Enter/Change Routing program. After you enter purchase order information, supplier, type of operation, purchase order, and cost type, you 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.

Attaching notes to a work order

Access the Notes window to create a separate generic text entry for each work order. This window enables you to provide more information and specific instructions per order. Any modifications that you make to the text will not impact the text that was originally attached to the item's routing.

You can also access User Audit Information and Select Notes Template to view user and date updates, as well as templates.

Using the Warehouse Management system

If you set up the work center as a valid location, the system checks the work center for availability before you use Warehouse Management.

► **To attach the routing instructions interactively**

On Enter/Change Order

1. Choose Routing Revisions.

The screenshot shows a window titled '3112 - Routing Revisions'. It contains a header section with the following information:

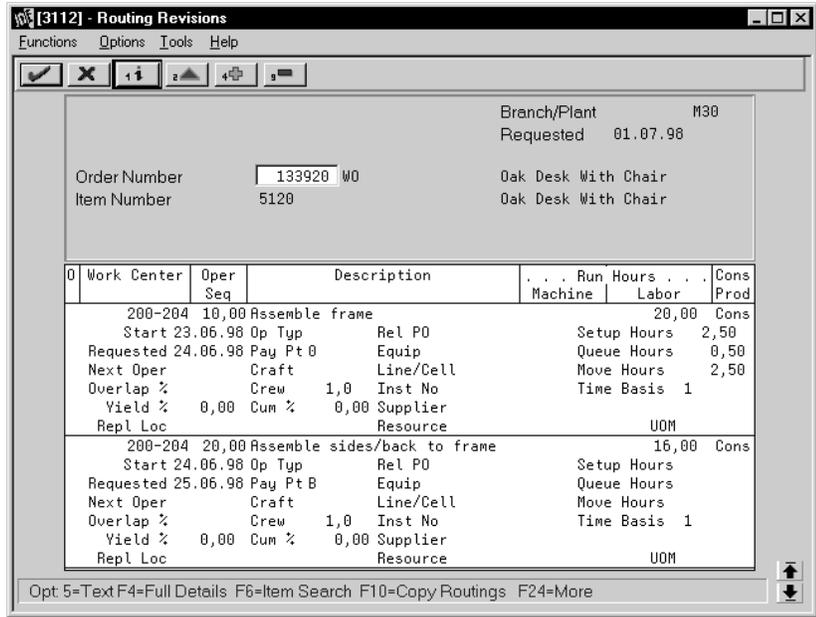
- Branch/Plant: M30
- Requested: 01.07.98
- Order Number: 133920 W0
- Item Number: 5120
- Oak Desk With Chair

Below the header is a table with the following columns: Work Center, Oper Seq, Description, Run Hours (Machine and Labor), and Cons Prod.

0	Work Center	Oper Seq	Description	Run Hours		Cons Prod
				Machine	Labor	
	200-204	10,00	Assemble frame		20,00	Cons
	200-204	20,00	Assemble sides/back to frame		16,00	Cons
	200-204	30,00	Attach drawer slide kits		15,20	Cons
	200-204	40,00	Attach top		7,20	Cons
	200-202	50,00	Finish		2,00	Cons
	200-204	60,00	Package with chair		12,00	Cons

At the bottom of the window, there is a status bar with the text: Opt 5=Text F4=Full Details F6=Item Search F10=Copy Routings F24=More

2. On Routing Revisions, choose the selection option to copy the routing.
3. Add the routing to the routing revisions.
4. Add the routing to your work order header.
5. Review the following fields:
 - Work Center
 - Operation Sequence Number
 - Description
 - Machine Run Hours
 - Labor Run Hours
 - Consumed/Produce/Both
6. Access the detail area.



7. Review the following fields:

- Equipment
- Instruct Number
- Start
- Requested
- Type Operation
- Pay Point
- Crew
- Setup Hours
- Queue Hours
- Move Hours

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

Field	Explanation
Labor	<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>
Cons Prod	<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 %	<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>
Op Typ	<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)

Field	Explanation
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	<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) by crew size during costing to generate total labor dollars.</p> <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 for backscheduling without modification by crew size.</p>
% 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>
Unit or Tag Number	<p>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.</p>

Field	Explanation
Time Basis	<p>A user defined code (system 30, type TB) that identifies the time basis or rate for machine or labor hours entered for any routing step. You can set rates per unit, per 10, per 1000, and so on.</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 is 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 total time (in hours) that an order is expected to be in queue at work centers and moving between work centers.</p> <p>The system stores this value in the Item Branch table (F4102). You can calculate this value using the Leadtime Rollup program or you can enter it manually. When you run the Leadtime Rollup program, the system overrides manual entries with calculated values.</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>

See Also

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

Assigning Serial Numbers



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

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

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

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

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

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

Before You Begin

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

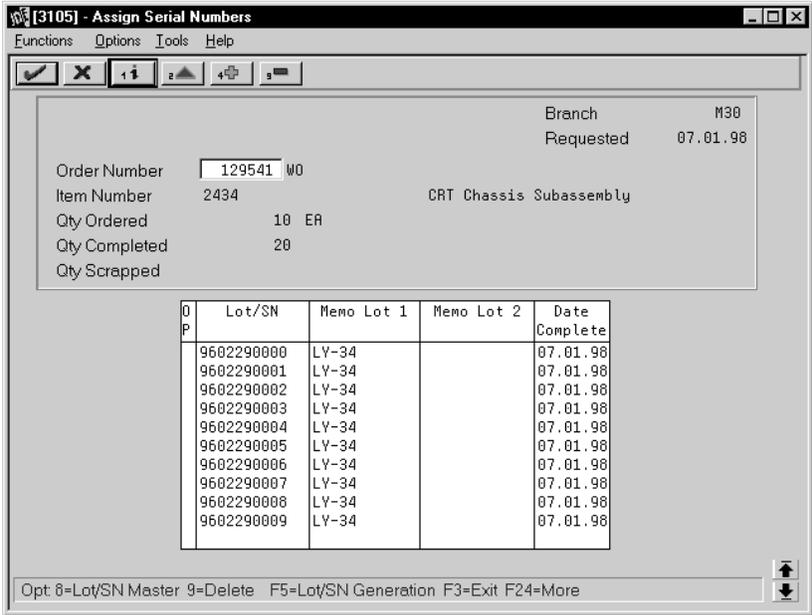
What You Should Know About

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

► **To assign serial numbers**

On Enter/Change Order

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



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

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

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

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.

Blending, filling, and packaging

The system checks for any incompatibility between blending tank's or fill line's associated allowed product matrix and the work orders parts list, and displays any errors.

See *Bulk Stock Management Guide*.

Regenerating the parts list

When you run Order Processing, the system deletes any previously generated or manually entered parts list that is attached to the work order. You can manually enter changes to the system-generated parts list. If you add parts to the list, the system commits them from the primary location in the Item Location program.

You should *not* regenerate the parts list if any part on the list has been issued to the work order. If you regenerate the parts list after material has been issued, you must manually adjust the list to prevent duplication of component quantities.

Regenerating the routing instructions

When you run Order Processing, the system deletes any previously generated or manually entered routing. You should not regenerate the routing instructions for the work order if hours and quantities are recorded against any of its operations.

You can set the processing options for order entry to update the routing instructions if you change the work order. The system recalculates the run labor and run machine hours based on the quantity ordered on the work order.

If the system finds an error in calculating the date for an operation sequence, it enters the work order start and requested dates for that operation.

Sales Order Processing work orders

If you create a work order for a kit during sales order entry, the parent item can be built and stocked in inventory after you process and complete the work order. The system subtracts the components from the on-hand quantity in inventory when you create the work order, and the system adds the parent item into on-hand quantity in inventory after you complete the work order.

You must specify a T line type for all components in the processing options of the Order Processing program. This line type must be set up as a text to avoid writing journal entries for cost of goods sold and inventory for the components at the time of sales update. This also ensures that the system does not subtract components again during shipment confirmation or sales update.

See *Working with Kits and Configured Items* in the *Sales Order Management Guide*.

Consolidating a parts list

Use a processing option to print a consolidated parts list which provides you with a means to pick inventory needed for the manufacturing process. You may process many work orders in a single run.

The items are consolidated based on item name, location, lot, unit of measure, and branch/plant. The system prints each branch/plant encountered on a separate page and prints each occurrence of an item that is in a different location, lot, or unit of measure on a separate line.

Warehouse Management interface

If you use Warehouse Management and process a work order, the system does not search for inventory. Instead, the system generates a pick request. The pick request notifies you of the need for materials from the warehouse.

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

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

Quality Management test results

As you process work orders, you can use processing options to set values for the status of the work order and operation lot if the tests fail.

See *Working with Test Results* in the *Quality Management Guide* for more information.

See Also

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

Run Order Processing



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

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

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

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

- The system previously created pick requests but did not re-generate a parts list
- The system did not create a pick request because “Warehouse Control” was not set to Y

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.) _____

Shop Floor Control Discrete Manufacturing

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.

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. _____
37. Enter a '1' to update parts list and routing if order quantity or dates have changed _____
38. Enter which symbology to use when using bar codes. _____
'1'= Code 3 of 9 (Code 39)
'2'= Code 128
' '= Not print bar codes
39. Enter a '1' to prevent commitments for rates. _____

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.

Generic Text Print Options (38) Select which bar code symbology to print:

- Code 39 (code 3 of 9)
- Code 128

When you use reports with bar codes, ensure that no printer file overrides exist. Use an Intelligent Printer Data Stream printer.

Printing a Summary of Work Orders



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

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

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

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	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 Commitments

About Commitments

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

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

The 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.

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

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

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

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

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

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 online
- Parts list when you create the routing instructions online

What Is a Soft Commitment?

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

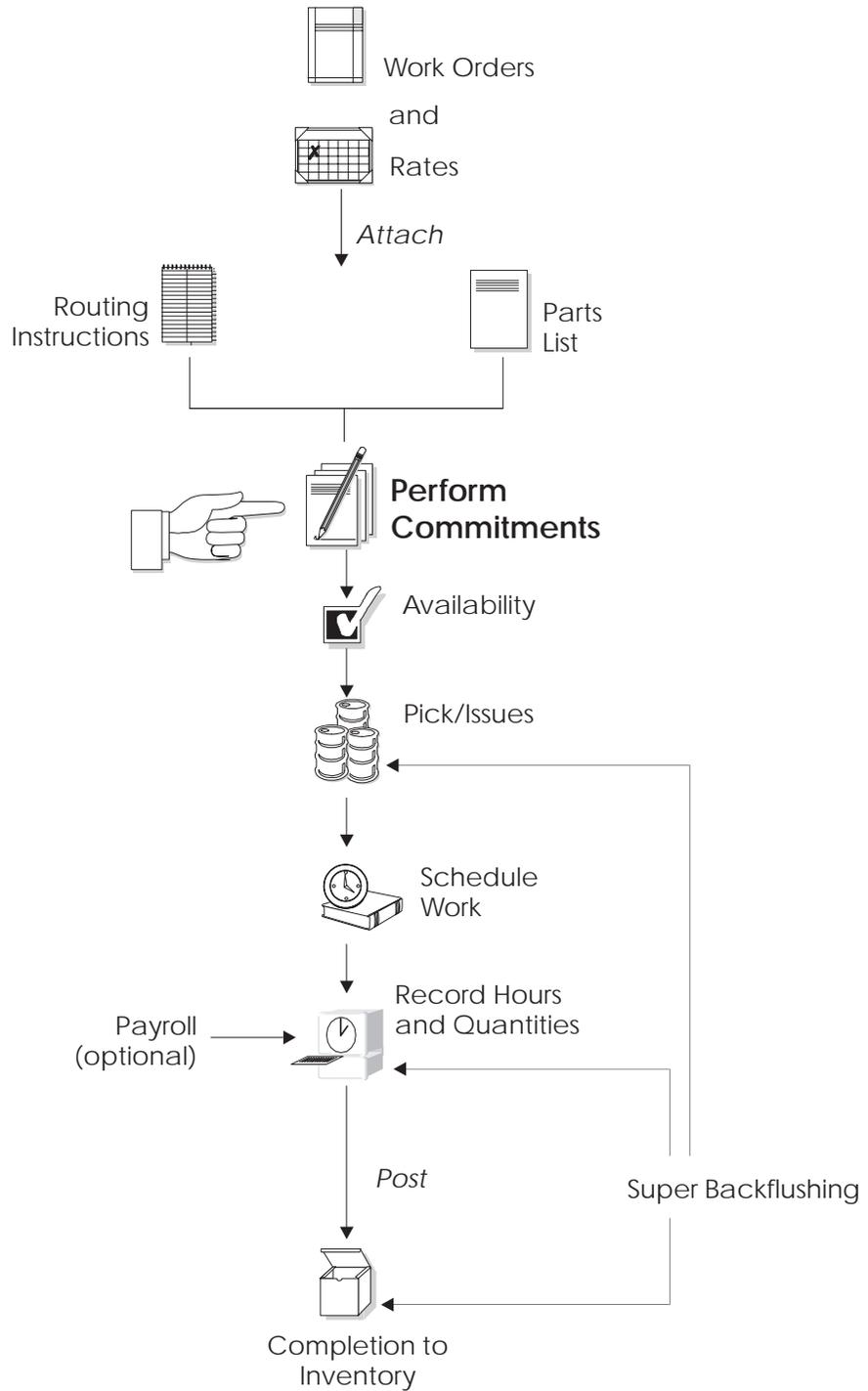
What Is a Hard Commitment?

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

See Also

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

Where in the Process Do You Commit Inventory?



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 verify 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 commitment rules for the work order:

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

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

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

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

On Item Branch/Plant Information

The screenshot shows the 'Item Branch/Plant Information' window for item 333. The 'Commitment Method' field is set to '1'. Other fields include Stocking Type (M), G/L Class (IN20), Line Type, Sales Taxable (Y), Purchasing Taxable (Y), Serial No. Required (N), Lot Status Code, Lot Process Type, Mix Lots/Serial Number, Country of Origin (USA), Planner Number (9200), Buyer Number (8200), Supplier, and Print Message (ENG455). The Branch/Plant is M30 and the item is ORK SHELF UNIT.

Complete the following field:

- Commitment Method

Field	Explanation
Commitment Method	<p>A code that indicates the method that 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 and then from secondary locations. The system commits inventory from the locations with the most inventory before committing inventory from locations with the least. The system commits backorders to the primary location. <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**

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

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

On Manufacturing Constants

Branch: M30 Memphis Mfg. Plant

Log Bill of Material Changes	<input type="checkbox"/> N	Backflush Options	<input type="checkbox"/> 1
On-Line BOM Validation (Y/N)	<input checked="" type="checkbox"/> Y	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"/> P	Percent Bill Validation	<input type="checkbox"/>
Modify cost by Work Center Eff	<input type="checkbox"/> Y	Status for Changes	<input type="checkbox"/>
Include Efficiency in Overhead	<input type="checkbox"/> Y	Work Hours Per Day	8,00
Include Var. Labor Overhead in cost	<input type="checkbox"/> Y		
Calculate Var. on Direct Labor	<input type="checkbox"/> Y	Hours	Shift Code / Desc
Calculate Var. on Setup Labor	<input type="checkbox"/> Y	8,00	
Include Fixed Labor Overhead in cost	<input type="checkbox"/> Y		
Calculate Fixed on Direct Labor	<input type="checkbox"/> Y		
Calculate Fixed on Setup Labor	<input type="checkbox"/> Y		
Include Var. Machine Overhead in cost	<input type="checkbox"/> Y		
Include Fixed Machine Overhead in cost	<input type="checkbox"/> Y		

F24=More Keys

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>For World: When the hard/soft commit option is set to 2 or 3, any line item in the parts list may be hard committed prior to printing or relieving the inventory.</p> <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 location at the work center
- Defining the work center and location in the items routing
- Defining the branch and parent item for the bill of material
- Defining how the system commits inventory during the backflush process for the work center

► **To define the location at the work center**

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

On Enter/Change Work Center

Branch/Plant	M20	
Work Center	R-112	Cut-off
Dispatch Group	R-112	Cut-off
Work Center Type	0	
Calendar Name		
Pay Point Code	0	Location - Issue
Prime Load Code	B	Location Branch
Critical Work Center	2	
Crew Size	1,0	Capacity Std
Number of Machines	2	Capacity UOM
Number of Employees	2	Capacity Min
		Capacity Max
Queue Hours		Hours
Move Hours		Shift Code / Description
Replenishment Hours		
Resource Offset		
Efficiency	100,00	
Utilization	100,00	

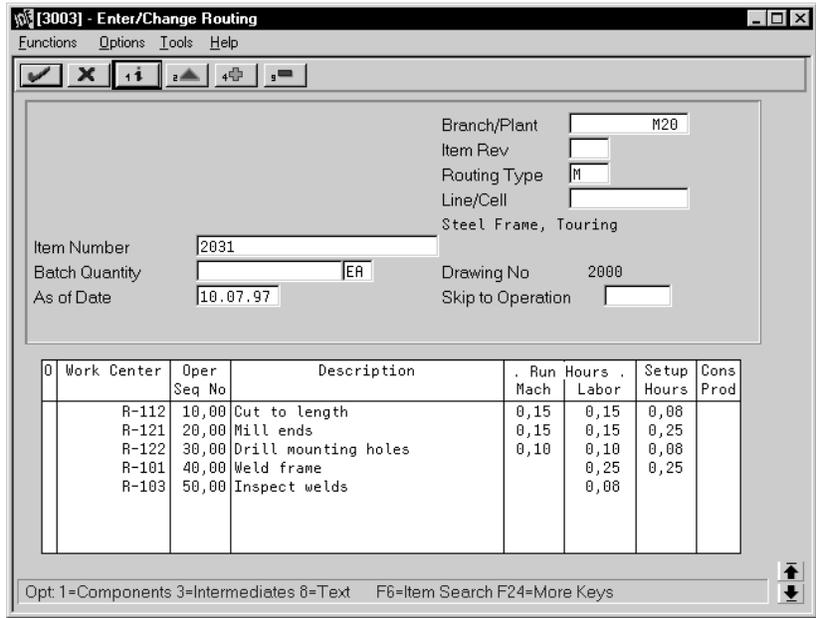
Complete the following fields:

- Work Center
- Location – Issue

► To define the work center and location in the items routing

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

On Enter/Change Routing



Review the following field:

- Work Center
- Replenishment Location

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

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

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

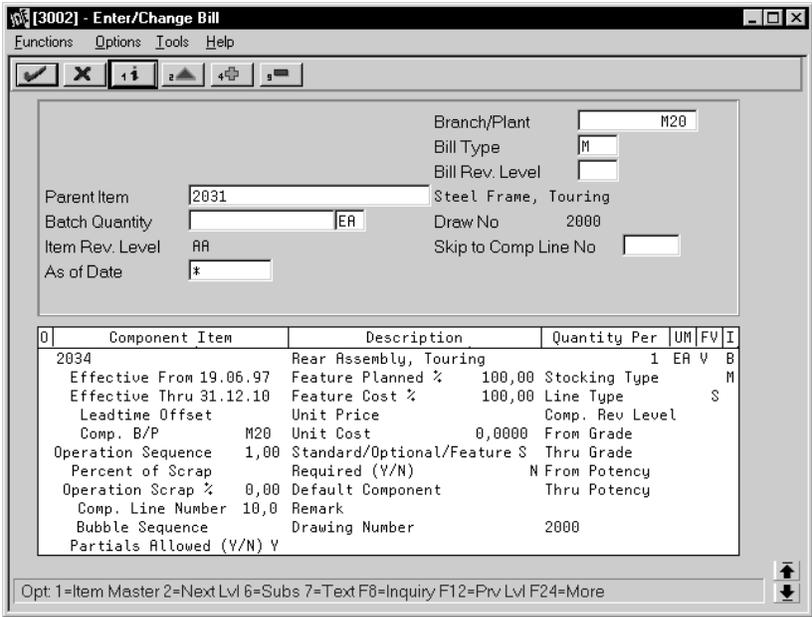
On Enter/Change Bill

Component Item	Description	Quantity Per	UM	FV	I
2034	Rear Assembly, Touring	1	EA	V	B
9102	50mm Steel Tubing	168	CM	V	B
2048	Head Tube, Light	1	EA	V	B
2047	Bottom Tube	1	EA	V	B
2037	Front Fork, Touring	1	EA	V	B

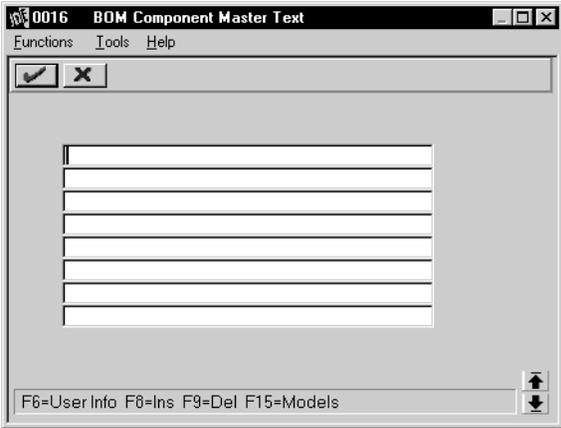
5. Complete the following fields:

- Branch/Plant
- Parent Item

6. Access the detail area.



- 7. Complete the following field:
 - Operation Sequence
- 8. Choose BOM Component Master Text.



- 9. 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.

What You Should Know About

Attaching notes

Access the Notes window to create a separate generic text entry for each operation sequence of the routing. This window enables you to provide more information and specific instructions per step. You can also access the User Audit Information and Select Notes Template windows to view user and date updates, as well as templates.

Blending, filling, and packaging

Use the Enter/Change Bill program to add parts associated with a manufacturing product. The system allows a percent bill to be added to 100% and additional quantities to include fixed or variable definitions.

See *Bulk Stock Management Guide*.

► To define how the system commits inventory during backflush

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

On Manufacturing Constants

The screenshot shows the 'Manufacturing Constants' window for branch M20. The window title is '[3009] - Manufacturing Constants'. The menu bar includes 'Functions', 'Tools', and 'Help'. The main area contains the following settings:

Branch	M20	Valley Forge Mfg/Dist. Ctr	
Log Bill of Material Changes	<input type="checkbox"/> N	Backflush Options	<input type="checkbox"/> 1
On-Line BOM Validation (Y/N)	<input checked="" type="checkbox"/> Y	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"/> P	Percent Bill Validation	<input type="checkbox"/>
Modify cost by Work Center Eff	<input checked="" type="checkbox"/> Y	Status for Changes	<input type="text"/> 90
Include Efficiency in Overhead	<input checked="" type="checkbox"/> Y	Work Hours Per Day	16,00
Include Var. Labor Overhead in cost	<input checked="" type="checkbox"/> Y		
Calculate Var. on Direct Labor	<input checked="" type="checkbox"/> Y	Hours	Shift Code / Desc
Calculate Var. on Setup Labor	<input checked="" type="checkbox"/> Y	<input type="text"/> 8,00	<input type="text"/> 1 Day
Include Fixed Labor Overhead in cost	<input checked="" type="checkbox"/> Y	<input type="text"/> 8,00	<input type="text"/> 2 Swing
Calculate Fixed on Direct Labor	<input checked="" type="checkbox"/> Y	<input type="text"/>	<input type="text"/>
Calculate Fixed on Setup Labor	<input checked="" type="checkbox"/> Y	<input type="text"/>	<input type="text"/>
Include Var. Machine Overhead in cost	<input checked="" type="checkbox"/> Y	<input type="text"/>	<input type="text"/>
Include Fixed Machine Overhead in cost	<input checked="" type="checkbox"/> Y	<input type="text"/>	<input type="text"/>

F24=More Keys

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

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

From Enter/Change Order, choose Parts List.

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

For example:

	<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 GP/.7 = 43 GA).

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

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



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.

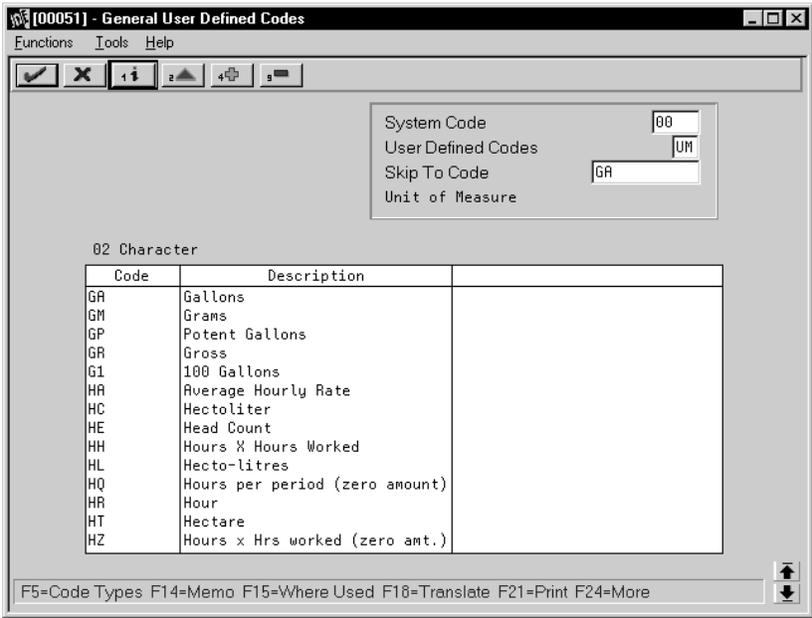
Creating commitments for potent units consists of:

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

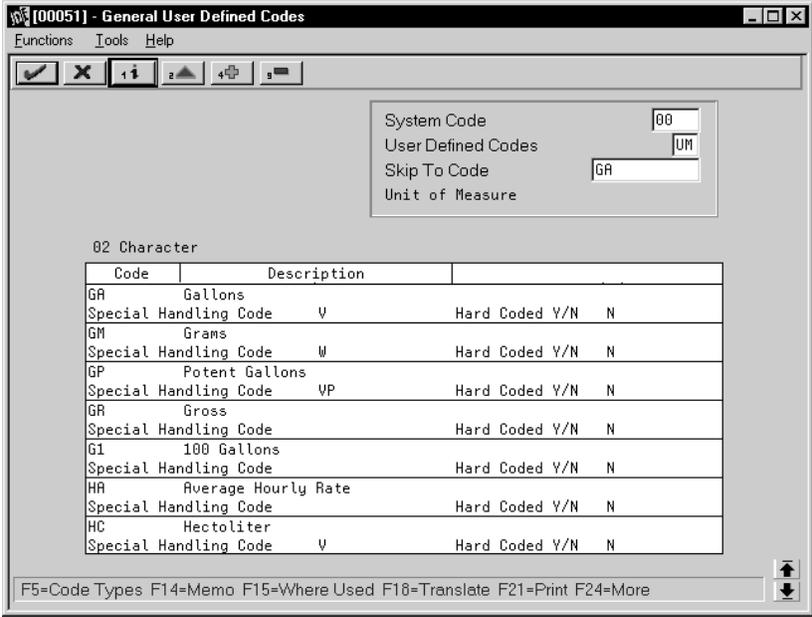
► To define potent units

From the General Systems menu (G00), choose General User Defined Codes.

On General User Defined Codes



1. Access the detail area.



2. Complete the following field:
 - Special Handling Code

Field	Explanation
Special Handling Code	<p>A code that indicates special processing requirements for certain user defined code values. The particular value you enter in this field is unique for each user defined code record type.</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>

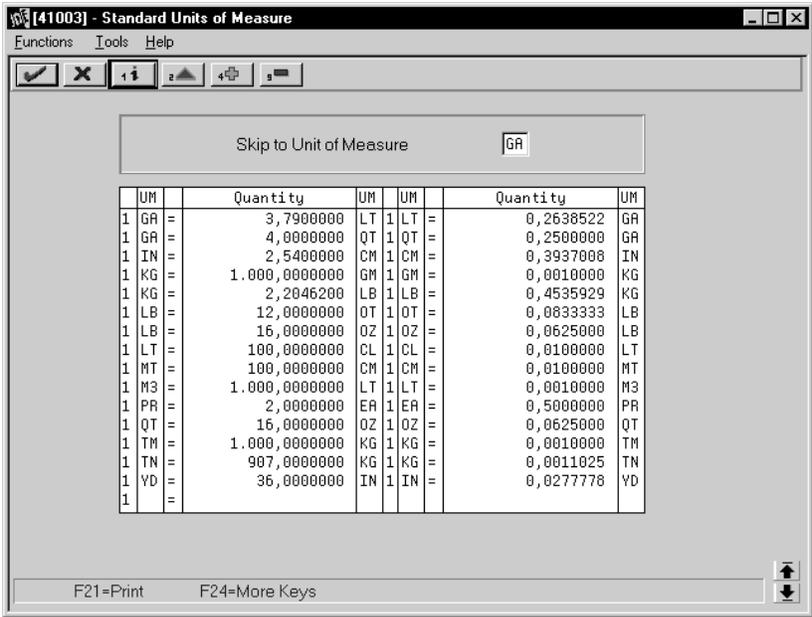
► To set up a unit of measure conversion

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

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

- Convert potent units of measure to physical units of measure
- Convert physical units of measure to potent units of measure

On Standard Units of Measure



Complete the following fields:

- Unit of Measure
- Quantity
- Unit of Measure

Processing Options for User Defined Codes

Defaults

Enter the desired System Code:

Enter the desired Record Type:

Reposting Work Order Commitments



From Shop Floor Control (G31), enter 27

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

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

- Clear outdated or invalid commitments
- Repost the commitments and on-order quantities specified in your work order to current requirements

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

Before You Begin

- Verify that the Item Branch table (F4102) is not in use.
- Indicate whether you want inventory hard or soft committed at each branch. See *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 you repost open and on-order quantities on your work orders, the system:

- Clears (sets to zero) all values for the quantity and quantity committed in the Item Branch table (F4102).
- Reposts the quantity value in the Item Branch table for the parent item. The system uses the information from the Work Order Master table (F4801) and the following calculation:
quantity ordered – (quantity completed + quantity scrapped)
- Reposts the quantity committed value for components in the Item Branch table for the location specified on the work order parts list for the item. The system uses the information from the Shop Floor Control Parts List table (F3111) and the following calculation:
quantity required – quantity issued

Processing Options for Work Order Repost Commitments

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

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

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

5. Can you commit inventory to a work center?
6. 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.

7. At the branch level, you can commit inventory by lot number or lot expiration date. True / False
8. Hard commitments remain in effect until inventory is relieved. True / False
9. Using the normal inventory commitment method, inventory is committed from the primary location only. True / False
10. The Commitment Control field is only active when you are creating hard commitments. True / False
11. You can change commitments for a work order. True / False
12. 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 with varying strengths of caffeine.

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

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

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

Grade and Potency Control

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

- Grade/Potency Pricing – determines how to price grade or potency controlled items in Sales Order Management.
- Grade Control – identifies whether the item is grade controlled.
- Potency Control – identifies whether the item is potency controlled.
- Standard Grade – identifies the standard grade of the item, for example, premium or average. The value entered here provides the default for several forms in manufacturing.
- Standard Potency – identifies the standard percentage of active ingredients normally found in an item. The value entered here provides the default for several forms in manufacturing. The potency standard is used for the potent unit of measure conversion, in certain cases.
- From and Through Grade – defines the allowable grade ranges for an item.
- From and Through Potency – defines the allowable potency ranges for an item.

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

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

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

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

Lot Control Items

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

- Blank = Lot assignment is optional. Numbers must be manually assigned. Quantity can be greater than one.
- 1 = Lot assignment is used. Numbers are assigned by the system using the system date in YYMMDD format. Quantity can be greater than one.
- 2 = Lot assignment is used. Numbers are assigned in ascending sequence using the next number convention. Quantity can be greater than one.
- 3 = Lot assignment is required. Numbers must be manually assigned. Quantity can be greater than one.

The screenshot shows a software window titled "[41026] - Item Branch/Plant Information". The window has a menu bar with "Functions", "Tools", and "Help". Below the menu bar is a toolbar with several icons. The main area of the window contains a form with the following fields and values:

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

At the bottom of the window, there is a status bar with the following text: "F5=Codes F6=Cost F9=Price F10=Manufacturing F15=Bulk Info F24=Keys".

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

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

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 to identify the items that you must sell first. You can view current information about each lot, such as the quantity of available items, and the transactions that have affected the lot.

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

- Identify the lot number for the tires that were used to build a specific bicycle
- Identify all bicycles that were assembled from a specific lot of tires

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

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

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

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

Expiration planning considers the expiration dates of lots while calculating the quantity on-hand and consumes the lot quantities in the order of expiration dates. That is, lots with the most current expiration dates are consumed first.

This is the first-in, first-out (FIFO) method. For example, when milk is delivered to a store, it is placed in the front of the shelf and continuously rotated so that the oldest product is sold to the customer first.

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

When you set the appropriate processing options, 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 list 41/L.

You assign lot statuses when:

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

You assign lot statuses using:

- The lot status code from that lot's record in the Lot Master table (F4108).
- The default status from the Item Branch table (F4102) if no lot status exists.

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

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

Lot Master (F4108)

If you enter a lot status on the Lot Master Revisions form, the system uses that lot status.

If you do not enter a lot status, the system uses the default lot status from the Item Branch table (F4102).

Item Location (F41021)

If you enter a lot status on the Lot Master Revisions form, the system uses that lot status.

If you are moving a lot from another location:

- The system uses the default lot status from the From location.
- If a lot number exists, the system uses the lot status from the Lot Master record.
- If no lot number exists, the system uses the default lot status from the Item Branch table (F4102).

See Also

- *Defining System Constants (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 your inventory system by assigning them to lots. To work with lots, you must define:

- Lot information for items
- 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 that is contained in the lot, the expiration date for the lot, and so on.

Complete the following tasks:

- Enter lot information for items
- Enter information for lots

Entering Lot Information for Items



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

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

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

- Whether the item requires a lot number at the time of receipt
- Whether the system commits the item's inventory based on lot numbers

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 specify lots by assigning serial numbers to items within the lots.

► To enter lot information for items

On Item Master Information

The screenshot shows a software window titled "[4101] - Item Master Information". The window has a menu bar with "Functions", "Tools", and "Help". Below the menu bar is a toolbar with several icons. The main area of the window is a form with the following fields:

Item Number - Short: 1303	
Product No: M001	Desc: Markette Red Highlighter
Catalog No: M2640-R	Srch: Marker, Red, Highlighter
Stocking Type: S	Line Type: S
G/L Class: IN20	Bulk/Packed Flag: P
Unit of Measure: ER	Inventory Cost Level: 3
Item Price Group: []	Sales Price Level: 3
Basket Reprice Group: []	Purchase Price Level: 3
Order Reprice Group: []	Kit Pricing Method: []
Dispatch Group: []	Serial No. Required: N
Backorders Allowed: Y	Lot Status Code: []
Check Availability Y/N: Y	Lot Process Type: []
Shelf Life Days: []	Commitment Method: I
ABC Codes: C - C - C	Item Flash Message: []
Planner Number: []	Std UOM Conversion: []
Buyer Number: []	
Print Message: []	

At the bottom of the window, there is a status bar with the text: "F5=Codes F8=Measures F10=Manufacturing F13=Branch/Plant F24=More Keys".

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
Reg. or Lot Processing	<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 that the system uses to commit lot items from inventory. Valid codes are:</p> <ol style="list-style-type: none">1 The normal commitment method for inventory (default). The system commits inventory from the primary location and then from secondary locations. The system commits inventory from the locations with the most inventory before committing inventory from locations with the least. The system commits backorders to the primary location.2 The inventory commitment method by lot number. The system commits inventory by lot number, starting with the lowest lot number and committing orders to available lots.3 The inventory commitment method by lot expiration date. The system commits inventory from the locations with the earliest expiration date first. The system considers only locations with expiration dates greater than or equal to the sales order or parts list requested date.
Shelf Life Days	<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 No. 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">Y Yes, the system requires a serial number for all transactions pertaining to this item in related inventory, sales, and purchase order programsN 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 allows you to track an item through purchasing and sales based on a serial number. To specify serial number requirements, you must use the Lot Process Type field on Item Master Information.</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">3 Supplier lot number required (purchasing only)4 Supplier lot number required (purchasing only), and Memo Lot 1 required5 Supplier lot number required (purchasing only), Memo Lot 1 required, and Memo Lot 2 required

Entering Information for Lots

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

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

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

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

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

Complete the following tasks:

- Create a lot
- Enter lot control information
- Enter availability information
- Enter supplier information

What You Should Know About

Assigning new lot numbers to items

You can assign new lot numbers to items when you receive purchase order receipts, adjust inventory, and complete work orders. You can also assign new lot numbers for items on Item/Location Information.

Assigning grades or potencies to lots

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

Item/Lot Ledger

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

See Also

- *Working with Item Locations (P41024)* in the *Inventory Management Guide* for information about adding new lots to item locations
- *Entering Item Grade and Potency Information (P41013)* in the *Inventory Management Guide* for information about item grades and potencies
- *Locating On-Hand Quantity Information (P4111)* in the *Inventory Management Guide* for information about viewing the Item/Lot Ledger
- *Defining System Constants (P4009W)* in the *Inventory Management Guide* for information about allowing duplicate lots

▶ To create a lot

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

Complete the following fields:

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

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

Field	Explanation
Lot/Serial Number	<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>

Field	Explanation
Date – Layer Expiration	<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

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

Complete the following fields:

- Lot Description
- Lot Status Code
- Lot Potency
- Lot Grade
- Status Change Reason
- Potency Change Reason
- Grade Change Reason

Field	Explanation
Lot Description	You can use this field to further describe a specific lot of inventory within a stocking location.

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 for this field comes from the lot status code (including a blank value) that you assign to the item on Item Master Information or Item Branch/Plant Information.</p> <p>This code serves as the lot status default when you create a new item location for the lot.</p>
Lot Potency	<p>A code that indicates the potency of the lot, which is expressed as a percentage of active or useful material (for example, the percentage of alcohol in a solution). The actual potency of a lot is defined in the Lot Master table (F4108).</p>
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="padding-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	<p>A code (system 42, type RC) that indicates the reason for a change in the status of a lot, such as goods that are damaged in shipment or goods that are placed in quarantine.</p>
Potency Change Reason	<p>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.</p>
Grade Change Reason	<p>A code (system 42, type RC) that indicates the reason for a grade change to a lot. For example, you might change the grade because either the actual grade was lower than expected or the lot was downgraded because of aging.</p>

► To enter supplier information

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

Complete the following fields:

- Supplier
- Supplier Lot
- Order Number

Field	Explanation
Primary / Last Supplier Number	<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 Number	The supplier's lot number for the item.
Document (Order No, Invoice, etc.)	<p>A number identifying the original document. This can be an invoice number, work order number, sales order number, journal entry number, and so on.</p> <p>..... <i>Form-specific information</i></p> <p>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.</p>

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

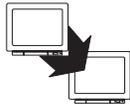
Working with Lot Availability

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



From Inventory Management (G41), choose Lot Control

From Lot Control (G4113), choose Lot Availability

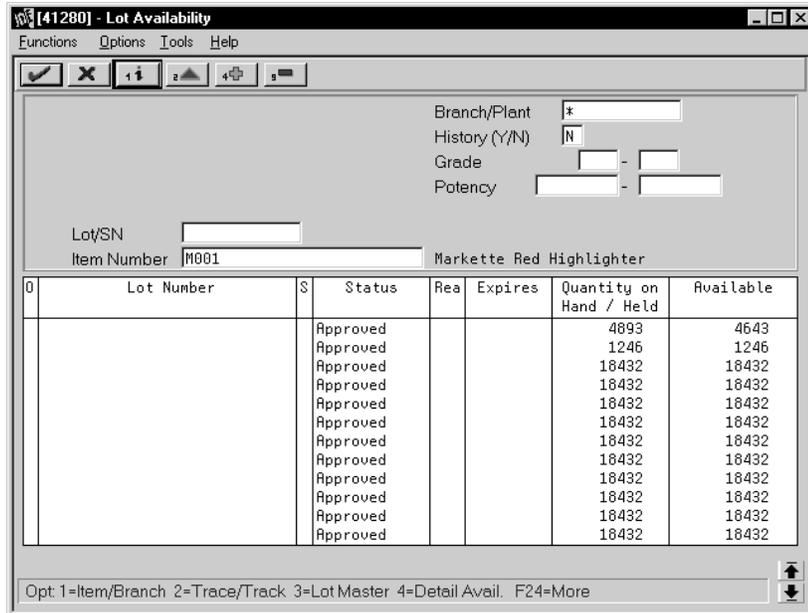
You can view availability for:

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

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

► **To view lot availability**

On Lot Availability



1. Complete the following fields for the item or lot that you want to view:
 - Branch/Plant
 - History (Y/N)
 - Grade (from)
 - Grade (thru)
 - Potency (From)
 - Potency (Thru)
 - Lot/SN
 - Item Number
2. Review the following fields:
 - Status (Lot Status Code)
 - Reason (Status Change Reason)
 - Expires (Expiration Date)
 - Quantity on Hand/Held
 - Available
3. Press F1 in the Lot/SN field to access the Lot Information form.

4. Review the following fields:

- Lot Description
- Lot Expiration Date
- Lot Status Code
- Lot Potency
- Lot Grade

Field	Explanation
History (Y/N)	<p>A code that determines whether to display information for all locations and lots or only for those with on-hand balances. Valid codes are:</p> <p style="margin-left: 40px;">N Display only locations and lots with on-hand balances</p> <p style="margin-left: 40px;">Y Display all locations and lots</p>
Grade	<p>A code (system 40, type LG) that indicates the minimum grade that is acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items with grades that do not meet the minimum grade acceptable. The system does not allow you to sell items with grades that do not meet the minimum acceptable level.</p>
Thru Grade	<p>A code (system 40, type LG) that indicates the maximum grade that is acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items with grades that exceed the maximum grade acceptable. The system does not allow you to sell items with grades that exceed the maximum grade acceptable.</p>
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 do not meet the minimum acceptable potency. The system does not allow you to sell items that do not meet 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>

Field	Explanation
Thru Potency	<p>A number that indicates the maximum potency, or percentage of active ingredients, that is acceptable for an item.</p> <p>The system displays a warning message if you try to purchase or issue items that have a potency that exceeds the maximum potency acceptable. The system does not allow you to sell items that have a potency that exceeds the maximum potency acceptable.</p> <p>..... <i>Form-specific information</i></p> <p>This is the maximum potency acceptable for items in this lot.</p>
Hand / Held	<p>The number of units that are physically in stock. The quantity on-hand displays in the primary unit of measure.</p> <p>..... <i>Form-specific information</i></p> <p>The number of items in stock or on hold. If the item is on hold, the system highlights the field.</p>
Available	<p>The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.</p>

What You Should Know About

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

See Also

- *Locating Detailed Quantity Information (P41023)* in the *Inventory Management Guide* for information on how the system calculates item availability
- *Locating Summary Quantity Information (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 (P4101) to call. _____
3. Enter the Version of Work Order Entry (P48013) to call. _____
4. Enter the Version of Branch/Plant Item Information (P41026) to call. _____

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 on user defined code table 40/LQ. These quantity types might reflect the quantity of items:

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

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

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

Complete the following tasks:

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

▶ **To review lot quantities**

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

Dates	
Received/Created	28.11.94
Issued	
Recalibrated	
Completed	12.01.96
Approved	
Sold	05.12.94

Quantities	
Quantity on Hand	
Available	
Quantity Held	
Received	
Issued	
Adjusted	
Completed	10.000
Approved	
Sold	10.000

1. To view quantities for a particular lot, complete the following fields:
 - Branch/Plant
 - Lot/SN
 - Item Number
2. Review the following fields:
 - Quantity on Hand
 - Available
 - Quantity Held
 - Quantities Received
 - Quantities Issued
 - Quantities Adjusted

- Quantities Completed
- Quantities Approved
- Quantities Sold

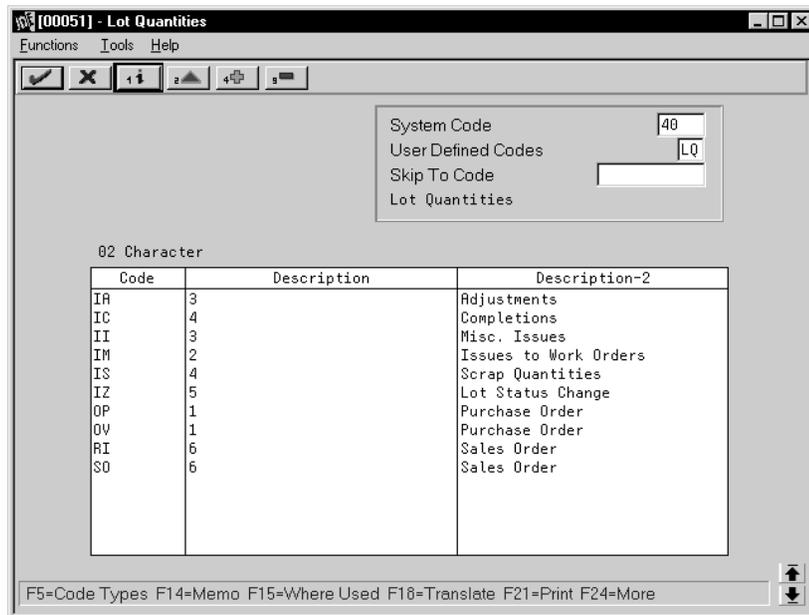
Field	Explanation
Received	<p>A type of quantity. This field represents quantity category 1. You specify the document types that update this category on user defined code table 40/LQ.</p> <p>The system updates user defined quantities when it writes Cardex information (F4111).</p> <p>..... <i>Form-specific information</i></p> <p>The quantity of items received in this lot.</p>
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>
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>
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>
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
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

From the Lot Control menu (G4113), choose Lot Quantities.

On Lot Quantities



- Complete the following fields for each document type:
 - 02 Character Code
 - Description
- Assign one of the following categories to each document type by entering the number in parentheses in the Description-2 field:
 - Received (1)
 - Issued (2)
 - Adjusted (3)

- Completed (4)
- Approved (5)
- Sold (6)

Assigning grades or potencies to lots

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

Working with Lot Activity Dates

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

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

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

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

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

Complete the following tasks:

- Change activity dates for a single lot
- Change activity dates for multiple lots
- Set up the system to track lot dates

► To change activity dates for a single lot

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

The screenshot shows a software window titled "[4108] - Lot Master Revisions". The window contains several data entry fields and sections:

- Branch/Plant:** M30
- Lot/SN:** 9601120002
- Item Number:** 1261, Multivitamin Tablets
- Lot Description:** [Empty]
- Lot Expiration:** 12.01.97
- Lot Status Code:** Approved
- Lot Potency:** [Empty]
- Lot Grade:** Not Graded
- Supplier:** [Empty]
- Supplier Lot:** [Empty]
- Order Number:** 110251 W0
- Memo Lot 1, 2, 3:** [Empty]
- Status Change Reason, Potency Change Reason, Grade Change Reason:** [Empty]
- Quantities:**
 - Quantity on Hand Available
 - Quantity Held Received
 - Issued
 - Adjusted
 - Completed: 10.000
 - Approved
 - Sold: 10.000
- Dates:**
 - Received/Created: 28.11.94
 - Issued: [Empty]
 - Recalibrated: [Empty]
 - Completed: 12.01.96
 - Approved: [Empty]
 - Sold: 05.12.94

At the bottom, there are function key instructions: F10=Category Codes, F15=Location Lot Status Window, F24=More Keys.

1. To view dates for a specific lot, complete the following fields:
 - Branch/Plant
 - Lot/SN
 - Item Number
2. Change the following dates for the appropriate lots, if necessary:
 - Date Received/Created
 - Date Issued
 - Date Recalibrated
 - Date Completed
 - Date Approved
 - Date Sold

Field	Explanation
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>
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>
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
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>
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>
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**

From the Lot Control menu (G4113), choose Speed Lot Update.

On Speed Lot Update

The screenshot shows a window titled "[41080] - Speed Lot Update". It contains a menu bar (Functions, Options, Tools, Help) and a toolbar. Below the toolbar are input fields for "Branch/Plant" (M30), "History (Y/N)" (N), "Item Number" (1261), and "Supplier Lot". The main area is a table with the following data:

0	Lot/SN	Date Received	Date Issued	Date Tested	Date Complete	Quantity On Hand	Quantity Available
	9601120003	28.11.94			12.01.96	5000	5000
	9603010009	29.11.94			01.03.96	5000	5000
	9603080009	29.11.94			08.03.96	5000	5000
	9603150010	29.11.94			15.03.96	5000	5000
	9603220009	29.11.94			22.03.96	5000	5000
	9603290009	29.11.94			29.03.96	5000	5000
	9605030008	29.11.94			03.05.96	5000	5000
	9605100008	29.11.94			10.05.96	5000	5000
	9605170008	29.11.94			17.05.96	5000	5000
	9605240002	29.11.94			24.05.96	3000	3000
	9701260000	15.12.94			26.01.97	11000	11000
	9702030000	15.12.94			03.02.97	5000	5000
	9702030001	15.12.94			03.02.97	5000	5000
	9704090000	15.12.94			09.04.97	10000	10000
	9704100000	15.12.94			10.04.97	10000	10000

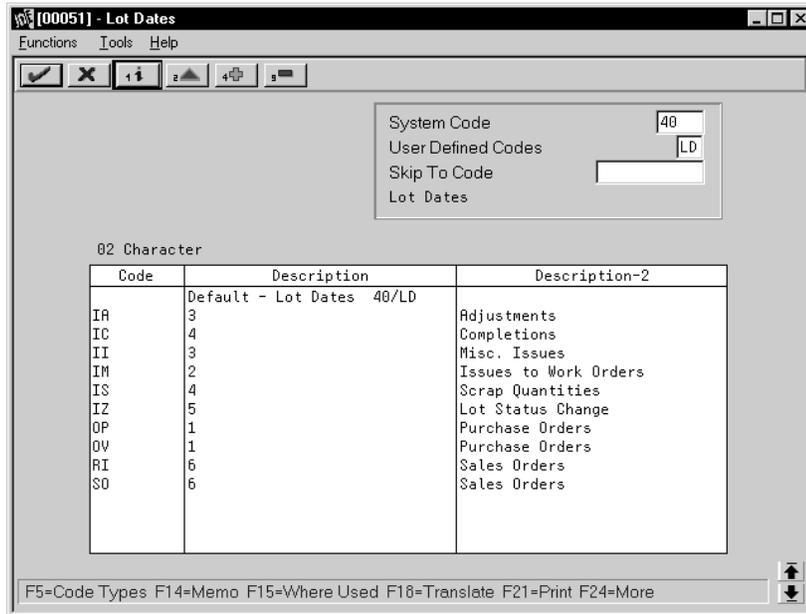
At the bottom, there is a status bar: "Opt: 1=Lot Master 2=Trace/Track 3=Location Lot Status Window F24=More Keys".

- Complete the following fields:
 - Branch/Plant
 - History (Y/N)
 - Item Number
 - Supplier Lot
- Change the following dates for the appropriate lots, if necessary:
 - Date Received
 - Date Issued
 - Date Tested (or recalibrated)
 - Date Complete

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

From the Lot Control menu (G4113), choose Lot Dates.

On Lot Dates



1. Complete the following fields for each document type:
 - 02 Character Code
 - Description
2. Assign one of the following categories to each document type by entering the number in parentheses in the Description-2 field:
 - Date Received/Created (1)
 - Date Issued (2)
 - Date Recalibrated (3)
 - Date Completed (4)
 - Date Approved (5)
 - Date Sold (6)

Working with Lot Statuses

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

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

- Set up lot status codes
- Assign status codes to different lots

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

Item Number	Description	Location	Lot Number	Date Expires
41082	J.D. Edwards & Company Hold Expired Lots		Page No. 3 Date 9/10/98	
			Branch/Plant 30 Lot Expiration Date. 08/30/98 Mode - Processing. . Proof Lot Status Code. . . Q	
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

► To set up lot status codes

From the Lot Control menu (G4113), choose Lot Status Codes.

On Lot Status Codes

Code	Description
A	Approved
D	Damaged Goods
I	Hold for Inspection-Insurer
Q	Under Quarantine
R	Reserved for Internal Use

Complete the following fields for each status code:

- 01 Character Code
- Description

► To assign status codes to different lots

From the Lot Control menu (G4113), choose Lot Master Revisions.

On Lot Master Revisions

1. Locate the appropriate lot and item.

Location Lot Status Change appears.

[4108S] - Location Lot Status Change

Functions Tools Help

Branch/Plant M30
History (Y/N) N

Lot/SN 9601120002
Lot Expiration Date 12.01.97
Item Number 1261

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

F3=Exit Without Change F24=More

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

What You Should Know About

Assigning status codes to locations

You can assign status codes to locations as well as lots. The system verifies that a lot is on hold before verifying that the location is on hold.

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

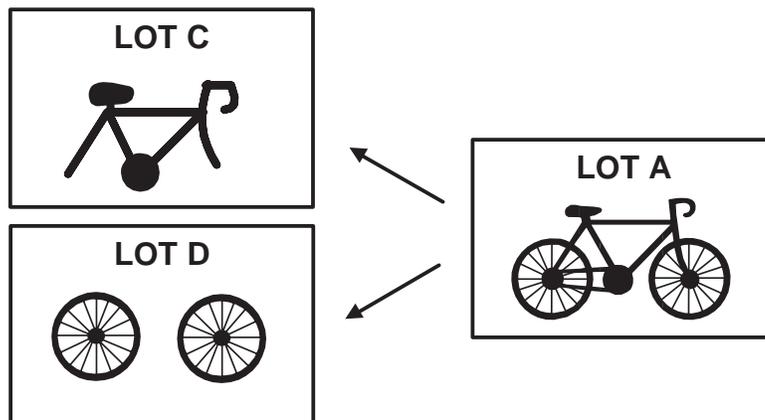
View Lot Transactions

Viewing Lot Transactions

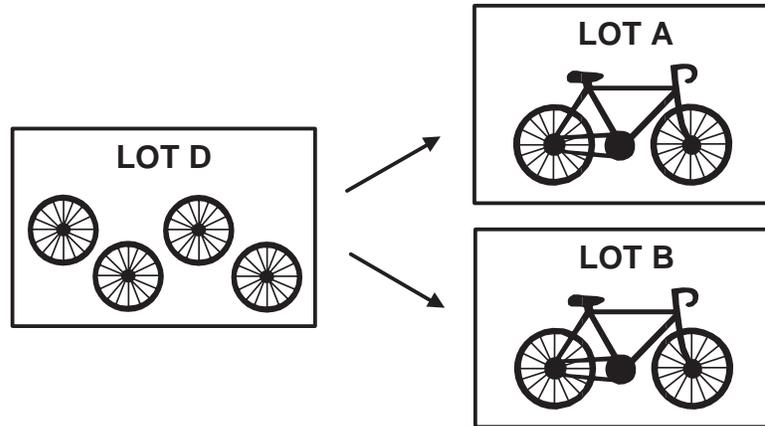
You might want to view the transactions that have affected a lot, such as:

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

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



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:

- Print trace and track reports
- Review trace and track information
- Set up trace and track inclusion rules

Printing Trace and Track Reports



From Inventory Management (G41), choose Lot Control

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

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

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- 03/08/98	Inventory Issue	13363	IM	
			Lot Grade		Lot Potency				
51013827	TELEPHONE UNIT	10	.2	100	03/08/98	Inventory Receipt	34	OV	Edwards, J.D. & Co
			Lot Grade		Lot Potency				
51013828	TELEPHONE CORD	10	1		10- 03/08/98	Inventory Issue	13363	IM	
			Lot Grade		Lot Potency				
51013828	TELEPHONE CORD	10	.2	100	03/08/98	Inventory Receipt	34	OV	Edwards, J.D. & Co
			Lot Grade		Lot Potency				
51013829	TELEPHONE RECEIVER	10	1		10- 03/08/98	Inventory Issue	13363	IM	
			Lot Grade		Lot Potency				
51013829	TELEPHONE RECEIVER	10	.2	100	03/08/98	Inventory Receipt	34	OV	Edwards, J.D. & Co
			Lot Grade		Lot Potency				

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 03/08/98	Inventory Complet	13363	IC	
			Lot Grade		Lot Potency				

Reviewing Trace and Track Information



From Inventory Management (G41), choose Lot Control

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

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

▶ To review trace and track lot items

On Lot Tracing or Lot Tracking

Level	Lot/SN	Item Number	Quantity	Trn Date	Explanation
1	9601120002	1261	10000-	12/05/94	Cloud Nine Healt
1	9601120002	1261	10000	01/12/96	Inventory Comple

1. Complete the following fields for the lot that you want to trace or track:

- Mode
- Lot/SN

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

2. Review the following fields, as necessary:

- Level
- Serial Number
- Item Number

- Quantity
 - Transaction Date
 - Explanation (Transaction Explanation)
3. Access the detail area.

Level	Lot/SN	Item Number	Quantity	Trn Date	Explanation
1	9601120002	1261	10000	12/05/94	Cloud Nine Health
Order	1037 RI	Multivitamin Tablets	Cust/Supp.	Cloud Nine Health Supply	
Br/Pl	M30	Sup Lot	Cust/Supp.	4245	
Lot Grade		Potency			
1	9601120002	1261	10000	01/12/96	Inventory Comple
Order	110251 IC	Multivitamin Tablets	Cust/Supp.		
Br/Pl	M30	Sup Lot	Cust/Supp.		
Lot Grade		Potency			

4. Review the following fields, as necessary:
- Order
 - Branch/Plant
 - Lot Grade
 - Lot Potency
 - Sup Lot (Supplier Lot)
 - Customer/Supplier

Field	Explanation
Mode	A code that indicates how you want the system to display lot trace and track information. Valid codes are: 1 Single level trace/track 2 No intermediate levels (displays only top or bottom levels) 3 Multi-level trace/track 4 Multi-level indented trace/track
Level of Indention	A number indicating the level of a child in the relationship to its parent in a hierarchy.

Field	Explanation
Date – Order/Transaction	The date that an order was entered into the system. This date determines which effective level that the system uses for inventory pricing.
Explanation – Transaction	This text identifies the reason that a transaction occurred.

What You Should Know About

Reviewing detailed lot information

Access the Lot Information window by pressing F1 in the Lot/SN field on Lot Tracing or Lot Tracking. This window displays the item that belongs to the lot, the branch/plant to which the lot is assigned, the lot expiration date, the lot status, and so on.

See *Viewing Lot Availability* for more information.

Processing Options for Lot Tracing Inquiry

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

Setting up Trace and Track Inclusion Rules

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

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

► To set up trace and track inclusion rules

Enter UDC on the command line from any J.D. Edwards menu.

On General User Defined Codes

System Code

User Defined Codes

Skip To Code

Trace/Track Document Types

02 Character

Code	Description	Description-2
IR	Inventory Adjustment	
IC	Work Order Completions	M WO Completions
II	Simple Issues	
IM	Work Order Issues	I Issue
IR	Inv. Receipts/Adjustments	
IS	Work Order Scrap	M WO Completions
IT	Inventory Transfers	
OP	Receipts	B Bottom
OV	Receipts	B Bottom
RI	Sales Invoice	
SO	Sales Orders	C Completions
SW	Software	

F5=Code Types F14=Memo F15=Where Used F18=Translate F21=Print F24=More

1. Access user defined code table 40/DC.
2. Complete the following fields for each document type:
 - 02 Character Code
 - Description
3. Assign one of the following values to each document type in the Description-2 field:
 - B (for bottom level, or tracing transactions)
 - C (for completion level, or tracking transactions)
 - Blank (for intermediate level transactions, which apply to both tracing and tracking)
 - I (for issue transactions)
 - M (for work order completions)

What You Should Know About

Issue transactions

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

Receipt, adjustment, and sales transactions

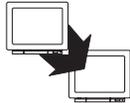
Receipt and adjustment transactions cannot have a value of C (completion) on Trace/Track Inclusion rules. Sales transactions cannot have a value of B (bottom level). A sale is the last transaction that can occur for lot tracking.

**How the system traces
and tracks lot
transactions**

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

Reclassify Lots

Reclassifying Lots



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

From Inventory Master/Transactions (G4111), choose Reclassifications

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

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

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

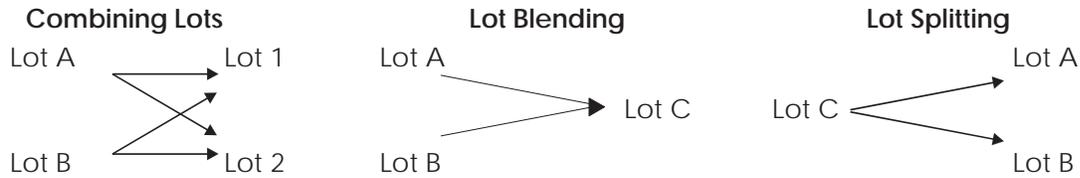
In a similar example, if you blend several lots of sulphuric acid together and dilute them with water, you can create a new lot with a new potency and grade.

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

- Change the item number, location, lot, and lot status
- Create a new lot from an existing lot
- Combine several lots into a single lot
- Split one lot into several lots
- Combine several lots and create several new lots

Example: Types of Reclassifications

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



After you reclassify an item and lot, the system adjusts inventory balances and performs related tracking and accounting tasks.

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

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

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

Before You Begin

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



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

What You Should Know About

Reviewing lot information

You can review item and location information for a lot by accessing Lot Information. This form also displays the lot expiration date, the lot status, and so on.

See *Viewing Lot Availability* for more information.

Correcting errors

You can correct a reclassification made in error by entering a reversing entry. Because the system stores records of each reclassification for accounting purposes, you cannot delete the record. The system reverses the item in the same document number and batch as the original reclassification.

Recording document numbers

After you enter a reclassification, the system displays the document type, batch number, and document number for the transaction. Record the document number for locating the transaction.

Grouping reclassifications

After you enter several reclassifications, you can group them together for processing.

After you group transactions, the system assigns the same number to each transaction in the group and processes all of the From and To lines with the same transaction number.

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

Reclassifying uncommitted quantities of items

You can reclassify only uncommitted quantities of items and lots.

See *Item and Quantity Information* in the *Inventory Management Guide* for information about how to determine uncommitted quantities for an item.

Assigning items with multiple lot or serial numbers to a location

When you reclassify inventory, you might be able to assign items with multiple lot or serial numbers to a location

See *Assigning an Item to a Branch/Plant* in the *Inventory Management Guide* for more information.

Reclassifying bulk inventory

You cannot use the Item/Lot Change Transactions program to reclassify bulk inventory. Instead, use the Bulk Stock Movement program to reclassify bulk inventory.

► **To reclassify items and lots**

On Reclassifications

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

Item Number	Quantity	UM	Location	Lot
V001	1	ER	1 .A .1	
V001	10	ER	1 .A .2	

Opt 1=Item Search 2=Reverse 8=New Transaction F13=J/E F24=More

4. To enter reclassification information, complete the following fields:
 - From Branch/Plant
 - To Branch/Plant (BU for Account Duplication)
 - Trans. Date (Date – Order Transaction)
 - Document Number (Document)
 - Document Type
 - Explanation
 - G/L Date
5. Access the detail 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

F/T	Item Number	Quantity	UM	Location	Lot
	V001	1	EA	1 .A	.1
	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	Lot Desc			
	Memo Lot 1	Memo Lot 2			
	V001	10	EA	1 .A	.2
	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	Lot Desc			
	Memo Lot 1	Memo Lot 2			

Opt 1=Item Search 2=Reverse 8=New Transaction F13=J/E F24=More

6. Complete the following fields for each branch/plant in which the item is stored:
- F/T (From/To)
 - Item Number
 - Quantity
 - UM
 - Location
 - Reason Code
 - Unit Cost
 - Extended Cost
 - Trans. Line (Transaction Line Number)
7. To create a new location and record for the lot, complete the following fields:
- Lot
 - Grade
 - Potency
 - Lot Desc
 - Lot Expires
 - Lot Status

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

Field	Explanation
To Branch/Plant	The destination business unit that you want to copy accounts to. <i>Form-specific information</i> The destination branch/plant that you want to move inventory to.
From/To	Indicates whether this line in the transaction is a From line or a To line. This field allows you to combine multiple existing products/locations into a single product/location, for example, three From lines and one To line. You can also split one existing product/location into several new products/locations, for example, one From line and two To lines. The information in a From transaction line is always existing item location information.
Trans. Line	The transaction line number keeps the different From and To lines for one transaction (for example, combining multiple lots into one or splitting one lot into several new ones) together by giving them the same transaction line number.
Prev Voucher:	The number of the last voucher that was entered.

Processing Options 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 protect Lot Number, Lot Expiration Date, and Lot Status. If left blank, the fields will remain input capable. _____
10. 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. _____
11. Enter a '1' to allow transfers from held lots. _____
12. Enter a '1' to allow transfers greater than quantity available. _____
13. 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. _____
14. 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



From Inventory Management (G41), enter 29

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

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

► To define availability calculation for a branch/plant

On Branch/Plant Constants

1. Choose Item Availability.

Category	Item	Checkbox
Subtract	Quantity Soft Committed to SO & WO	<input type="checkbox"/>
	Quantity Hard Committed to SO	<input type="checkbox"/>
	Quantity Future Committed to SO	<input type="checkbox"/>
	Quantity Hard Committed to WO	<input type="checkbox"/>
	Other Quantity 1 SO	<input type="checkbox"/>
	Other Quantity 2 SO	<input type="checkbox"/>
	Quantity on Hold	<input type="checkbox"/>
	Safety Stock	<input type="checkbox"/>
Add	Quantity on Purchase Order Receipts	<input type="checkbox"/>
	Quantity on PO - Other 1	<input type="checkbox"/>
	Quantity on Work Order Receipts	<input type="checkbox"/>
	Quantity in Transit	<input type="checkbox"/>
	Quantity in Inspection	<input type="checkbox"/>
	Quantity in Operation 1	<input type="checkbox"/>
	Quantity in Operation 2	<input type="checkbox"/>

2. On Item Availability Definition, review the following default information:

- Branch/Plant

3. To subtract a quantity, complete the following optional fields:
 - Quantity Soft Committed to SO & WO
 - Quantity Hard Committed to SO
 - Quantity Future Committed to SO
 - Quantity Hard Committed to WO
 - Other Quantity 1 SO
 - Other Quantity 2 SO
 - Quantity on Hold
 - Safety Stock
4. To add a quantity, complete the following optional fields:
 - Quantity on Purchase Order Receipts
 - Quantity on PO – Other 1
 - Quantity on Work Order Receipts
 - Quantity in Transit
 - Quantity in Inspection
 - Quantity in Operation 1
 - Quantity in Operation 2

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.

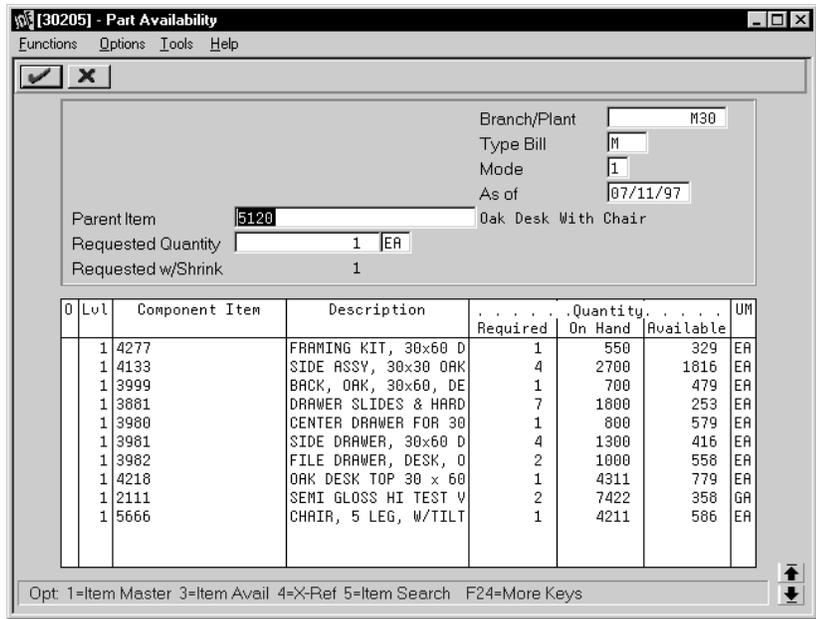
Reviewing availability consists of:

- Reviewing part availability
- Reviewing parts list availability

To review part availability

From the Daily Order Preparation – Discrete menu (G3111), choose Part Availability.

On Part Availability



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

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

Processing Options for Part Availability

SAFETY STOCK:

1. Enter a '1' if Safety Stock is to be subtracted from the Quantity on Hand. _____

DISPLAY OPTIONS:

2. Enter the default Bill Type. If left blank, 'M' will default. _____
3. Enter a '1' to prevent displaying phantom items when exploding the Bill of Materials. _____
4. Enter the default mode for Inquiry: _____
 - 1- Single Level Bill (All Items)
 - 2- Multi Level Bill (All Items)
 - 3- Single Level Bill (Negative Items)
 - 4- Multi Level Bill (Negative Items)

► **To review parts list availability**

From the Daily Order Preparation – Discrete menu (G3111), choose Parts List Inquiry.

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

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

On Parts List Inquiry

Item	Description	Quantity			UM
		Required	On Hand	Available	
4277	FRAMING KIT, 30x60 D	50	150	70-	EA
4133	SIDE ASSY, 30x30 OAK	200	1500	820	EA
3999	BACK, OAK, 30x60, DE	50	400	230	EA
3881	DRAWER SLIDES & HARD	350	1250	60	EA
3980	CENTER DRAWER FOR 30	50	450	280	EA
3981	SIDE DRAWER, 30x60 D	84	500	20	EA
3981	SIDE DRAWER, 30x60 D	116	400	200	EA
3982	FILE DRAWER, DESK, O	100	900	460	EA
4218	OAK DESK TOP 30 x 60	50	4111	580	EA
2111	SEMI GLOSS HI TEST V	100	7122	60	GA
5666	CHAIR, 5 LEG, W/TILT	50	3711	87	EA

- Complete the following field:
 - Order Number
- Access the detail area.

Item	Description	Quantity			UM
		Required	On Hand	Available	
4277	FRAMING KIT, 30x60 D	50	150	70-	EA
Br/Pl	M30 Requested 01/09/98	WO Hard Commit		220	
Locn		SO Hard Commit			
Lot/SN	Ordered 50	WO/SO Soft Commit			
Potency	Issued	Quantity On-Order		150	
Grade	Grade Range -	Potency Range		-	
4133	SIDE ASSY, 30x30 OAK	200	1500	820	EA
Br/Pl	M30 Requested 01/09/98	WO Hard Commit		680	
Locn		SO Hard Commit			
Lot/SN	Ordered 200	WO/SO Soft Commit			
Potency	Issued	Quantity On-Order		700	
Grade	Grade Range -	Potency Range		-	

Field	Explanation
Required	The total quantity requested.

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

Processing Options 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

From the Daily Order Preparation – Discrete menu (G3111), choose Shortage Workbench.

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

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

On Shortage Workbench

O P	Order Number	Or Ty	Due Date	Short Quantity	UM	Cumulative Quantity	Date Entered	Deliver to W/C
-----	--------------	-------	----------	----------------	----	---------------------	--------------	----------------

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**

From the Daily Order Preparation – Discrete menu (G3111), choose Shortage Maintenance.

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) and a toolbar. The window contains input fields for "Branch/Plant" (M30), "Item Number", and "Order Number" (65111 WO). 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 of the window, there is a status bar with the text: "Opt: 1=Open WO 2=Open PO 9=Delete F2=Shortage Workbench F24=More".

1. Complete the following fields:
 - Branch/Plant
 - Item Number
 - Order Number
2. Review the following default information:
 - Due Date
 - Short Quantity
 - Deliver to Work Center
3. Access the detail area.



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

Field	Explanation
Due	<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

From the Periodic Functions – Discrete menu (G3121), choose 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						Page	-		2
		Work Order Component Shortage List						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	
			Potency - 100,000								
		MILK	Milk	03.01.95				500	500-	QT	
			Potency - 100,000								
		CARAMEL	Caramel	03.01.95				600	600-	OZ	
			Potency - 100,000								
		CASHEWS	Cashews	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.

Printing All Shortages

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

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

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.		157649	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

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

6. Where do you define item availability?

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

8. 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.

9. The Part Availability form allows you to check availability against the bill of material for an item. True / False
10. The parts list displays the items required to complete the quantity for all work orders. True / False
11. Both the Part Availability form and Parts List form show the on-hand, required, and available quantities. True / False
12. Quantities in safety stock are always considered on hand. True / False
13. 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 Issuing Materials by Preflushing.

Backflushing

The system deducts materials from inventory when you report items on the work order or rate schedule as complete. This can occur when you report partial completions throughout the production process or when you report full completions at the last routing operation.

See Completing a Work Order through Backflush.

Super Backflushing

The system automatically deducts materials from inventory at operations defined as pay points throughout the routing. Super backflush allows you to backflush materials and labor hours, and to report items as complete at the same time.

See Processing a Work Order by Super Backflush.

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

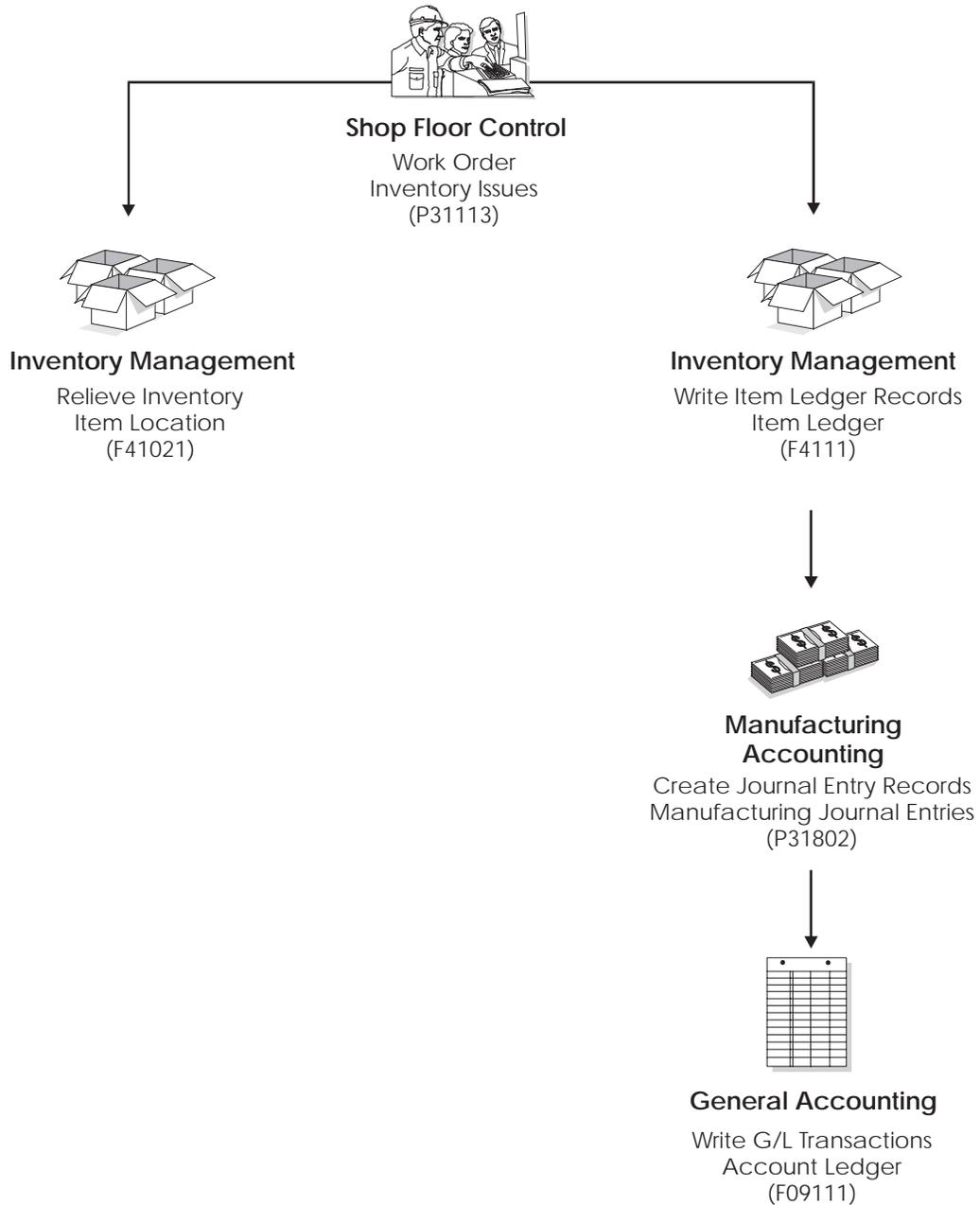
From Where is Inventory Issued

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

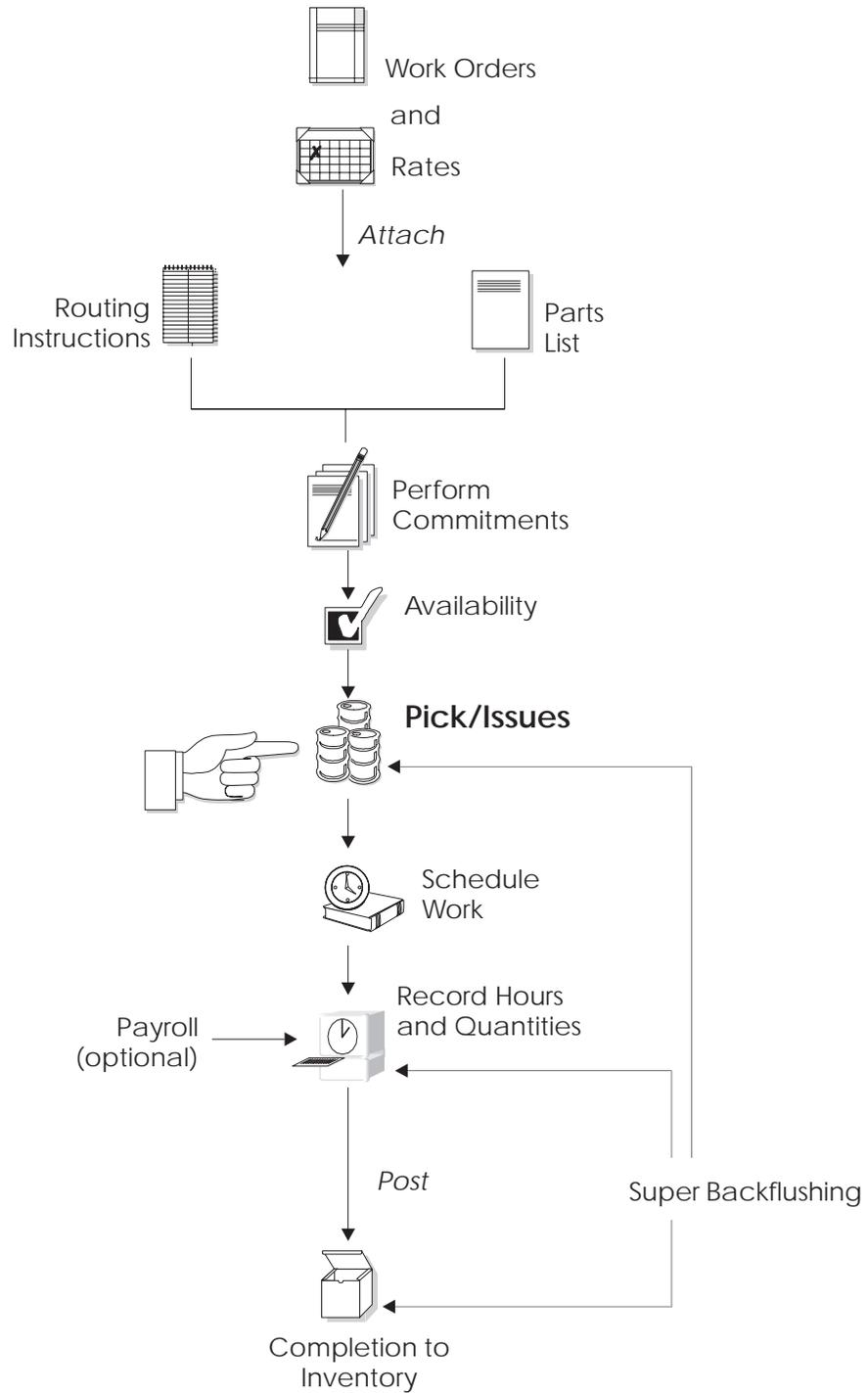
If you are issuing a grade or potency controlled item from a lot, and the lot grade or potency rating isn't within the desired range, the system displays a warning message.

What Tables Store Data when Issuing Inventory?

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



Where in the Process Do You Issue Inventory?



See Also

- *Completing Rate Schedules (P3114)* for information on recording completions for rate schedules
- *Setting Up Default Location Information* in the *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.



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

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.

Blending, filling, and packaging

Work order issues allow you to enter ambient quantities and current temperature and/or density information. The system calculates and stores the standard quantity and weight accordingly.

When you issue inventory to a blending/filling location the system checks the allowed products matrix for an incompatibility between the allowed product from the blending tank and the ingredients list at the time of issue.

The system calls Bulk Products for each item issued that is a bulk product.

When you issue inventory the system allows you to access the Dip Volume Calculator/Meter Readings program to enter readings.

See *Bulk Stock Management Guide*.

See Also

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

Issuing Materials by Preflushing



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

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

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



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

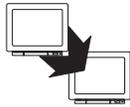
You can set a processing option in the Automatic Batch Issue program to issue only preflush items. If you leave this processing option blank, the system preflushes all items associated with the work order.

What You Should Know About Processing Options

Inventory Issue Information (17)

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



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

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

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

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

Complete the following tasks to manually issue material:

- Issue material from a single location
- Issue material from multiple locations (optional)

What You Should Know About

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

See Also

- *Completing Rate Schedules (P3104)*

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

On Inventory Issues

Item	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

1. Complete the following fields:
 - Order Number
 - Branch/Plant
2. Complete the following optional fields:
 - Status
 - Issues
3. Review the following default information:
 - Unit of Measure
4. Access the detail area.

5. Review the following default information:

- Location
- LSN

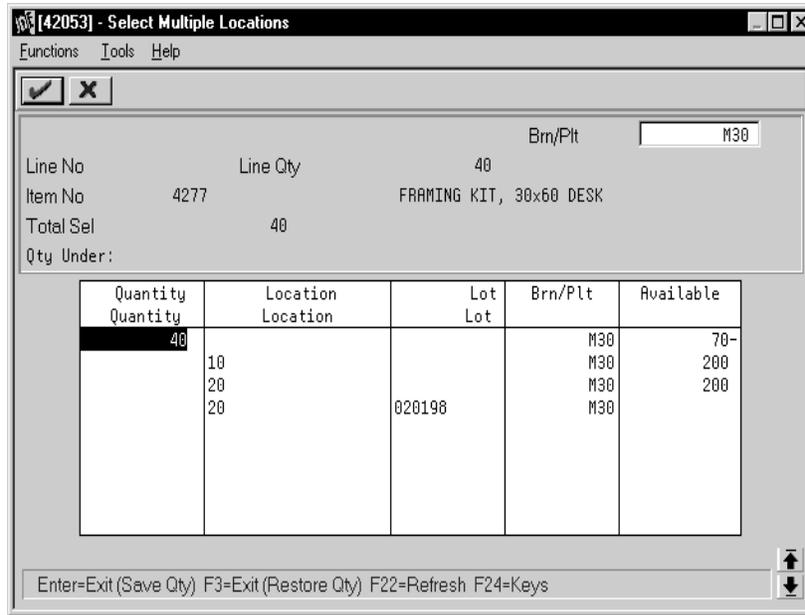
Field	Explanation
UM	<p>A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.</p> <p>..... <i>Form-specific information</i></p> <p>If you leave this field blank, the 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 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	The quantity available can be the on-hand balance minus commitments, reservations, and backorders. Availability is user defined and can be set up in branch/plant constants.

Processing Options 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. If left blank, the header will not be updated. _____
3. Enter the default value for the Material Status Code. If left blank, Material Status will not be updated. _____
4. Enter the Status Code beyond which Issues cannot be made. _____

INQUIRY INFORMATION:

Shop Floor Control Discrete Manufacturing

5. Enter a '1' to display only valid Issue Type Codes. If left blank, all Parts List items will be displayed. _____

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' to update 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. _____

LOT NUMBER:

14. Enter '1' to protect the lot number from entry. _____

PROCUREMENT INFORMATION:

14. Enter the document type for purchase orders. (Default is 'OP') _____

15. Enter the version of the Open Purchase Order program (P430301) to call. If left blank, version 'JDE0007' will be used. _____

16. Enter the default route type to be used to search for a receipt route. (Default is 'OT') _____

RECEIPT ROUTINGS:

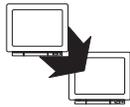
17. Enter the value of the default _____

route to be used for items without a receipt routing.

18. Enter the version of Receipt by PO/Item/Account to call. If left blank, version 'ZJDE0008' will be used.

19. Enter the version of Move and Disposition to call. If left blank, version 'ZJDE0002' will be used.

Recording Component Scrap



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

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

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

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

- You cannot scrap components unless they have been issued to a work order.
- The total quantity scrapped for a component cannot exceed the total quantity issued to the work order.
- Negative transactions are allowed unless the transaction quantity would cause a negative issue.
- You can enter scrap transactions in any unit of measure. The scrapped quantity will be converted to the unit of measure of the parts list and rounded to one whole unit of measure when the system updates the Shop Floor Control Parts List table (F3111).

What You Should Know About

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

Order Number 133920 WO
 Item Number 5120
 Quantity Ordered 40 EA
 Quantity Completed EA
 Transaction Date 07/11/97

Branch/Plant M30
 Requested 07/01/98
 Oak Desk With Chair
 Oak Desk With Chair

Item	Quantities		Quantity To Scrap	UM
	Issued	Scrapped		
4277				EA
4133				EA
3999				EA
4133				EA
3999				EA
3881				EA
3980				EA
3981				EA
3982				EA
3881				EA
3980				EA
3981				EA

F5=Inventory Issues F24=More Keys

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

[31116] - Component Scrap

Functions Tools Help

Order Number 133920 W0
 Item Number 5120
 Quantity Ordered 40 EA
 Quantity Completed EA
 Transaction Date 07/11/97

Branch/Plant M30
 Requested 07/01/98
 Oak Desk With Chair
 Oak Desk With Chair

Item	Quantities		Quantity To Scrap	UM
	Issued	Scrapped		
4277				EA
Reason Code	Explanation		Date	07/11/97
Description	FRAMING KIT, 30x60 DESK	Ordered		40
Location	Lot/SN		Br/Pl	M30
4133				EA
Reason Code	Explanation		Date	07/11/97
Description	SIDE ASSY, 30x30 OAK DESK	Ordered		80
Location	Lot/SN		Br/Pl	M30
3999				EA
Reason Code	Explanation		Date	07/11/97
Description	BACK, OAK, 30x60, DESK	Ordered		20
Location	Lot/SN		Br/Pl	M30

F5=Inventory Issues F24=More Keys

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.

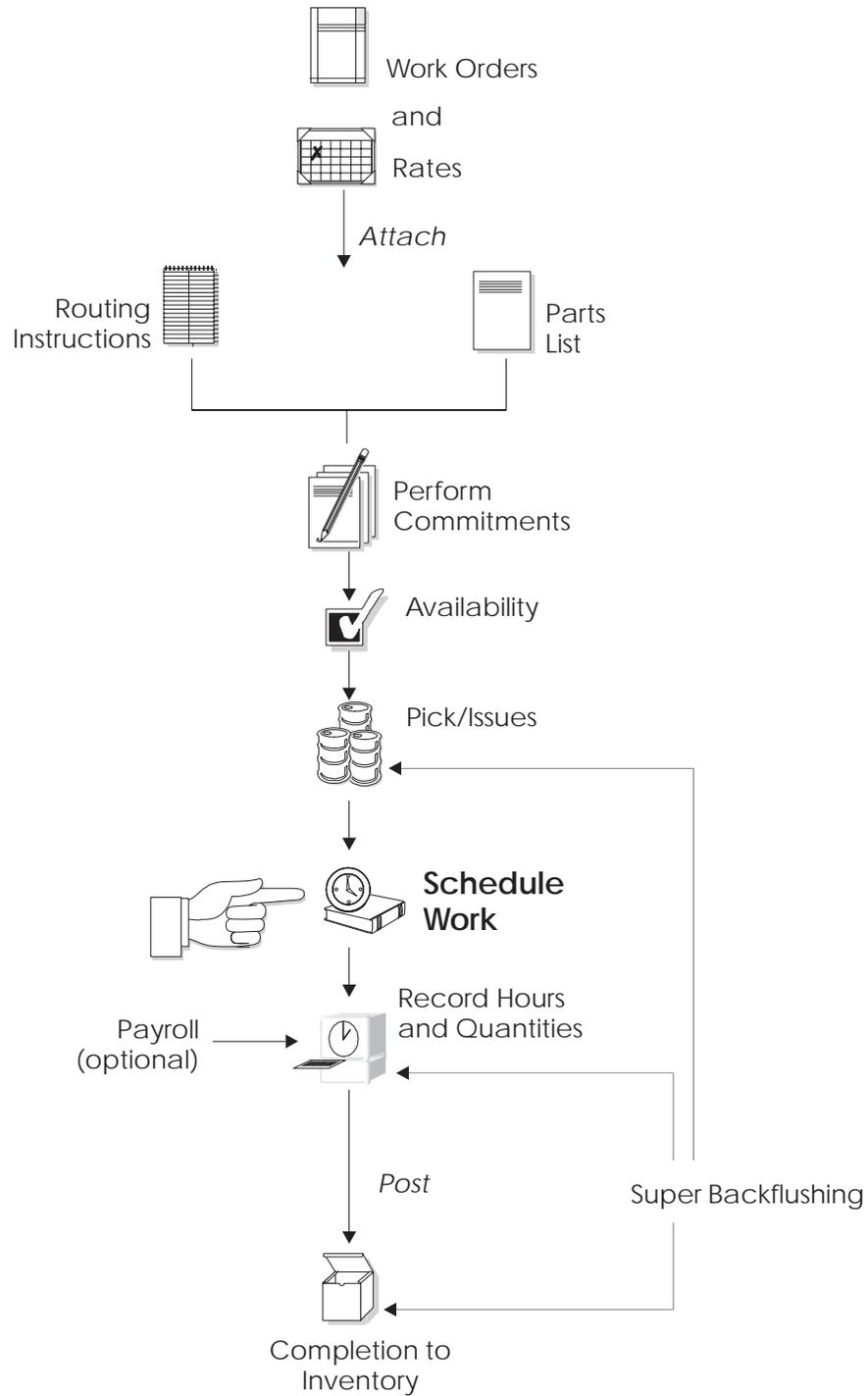
Scheduling work orders includes the following tasks:

- Reviewing work order information
- Revising work order information (optional)
- 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



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

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

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

► To review work order information

On Shop Floor Workbench

W.O. Number	Ty	Description	Process/Item	Open Quantity	UM	Date	St	T	P
844	WO	W.O. Scheduling	200-001		1	06/29/98	40	E	
2268	WO	Selenium	12811			03/16/98	40		
2276	WO	W.O. Scheduling	12706			03/16/98	40		
2284	WO	W.O. Scheduling	12781			03/16/98	40		
2292	WO	W.O. Scheduling	1261			03/16/98	40		
2330	WO	Operation Sched	PC486		1	06/15/98	40		
2348	WO	Operation Sched	PC486		1	06/16/98	40		
2356	WO	Operation Sched	PC486		1	06/22/98	40		
2364	WO	W.O. Scheduling	PC486		1	06/30/98	40		
2372	WO	ORAK SHELF UNIT	333		400	01/08/98	40		
2399	WO	W.O. Scheduling	5120		2500	01/02/98	81	S	
2410	WO	W.O. Scheduling	5120		3000	01/09/98	81	S	

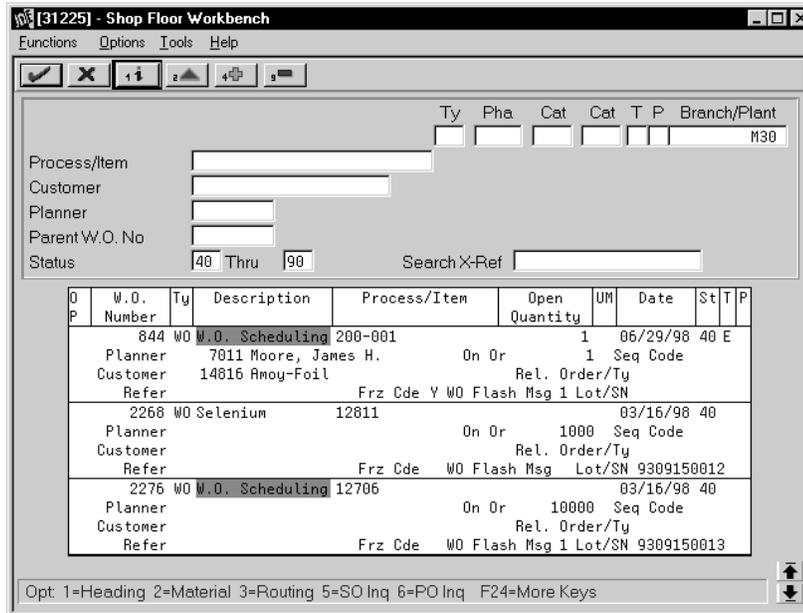
1. Complete the following field:

- Branch/Plant

2. Complete the following optional fields:

- Document Type
- Phase/Matter Code
- Category Code 2
- Category Code 3
- Work Order/ECO Type
- Work Order Priority
- Parent Item
- Planner
- Customer
- Parent Work Order Number
- Status From
- Status Through
- Search Cross Reference

3. Access the detail area.



4. Complete the following optional fields:

- Freeze Code Designation
- Type of Flash Message

Field	Explanation
Thru	<p>Enter a status code (00/SS) that you want the system to use as a beginning 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, 10 Thru displays all work orders with a status of 10 or more. • Enter only a Thru code to view work orders ending with a particular status. For example, Thru 40 displays all work orders with a status of 40 or less.
WO Flash Msg	<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



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

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

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

▶ To revise work order information

On Shop Floor Workbench

1. Complete the following optional fields:
 - Status
 - Work Order/ECO Type
 - Work Order Priority
2. Access the detail area.

3. Complete the following optional fields:

- Freeze Code Designation
- Type of Flash Message

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

Processing Options for Shop Floor Workbench

DREAM WRITER VERSIONS

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

- | | | |
|---------------------------|-----------|-------|
| 1. Sales Order Inquiry | (P42045) | _____ |
| 2. Purchase Order Inquiry | (P430301) | _____ |
| 3. Work Order Completions | (P31114) | _____ |
| 4. Work Order Entry | (P48013) | _____ |
| 5. Sales Order Entry | (P4211) | _____ |
| 6. Purchase Order Entry | (P43111) | _____ |

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. _____

SCREEN DEFAULTS:

9. Enter defaults for the following:
- | | |
|---------------------------|-------|
| a. Category Code 1 | _____ |
| b. Category Code 2 | _____ |
| c. Category Code 3 | _____ |
| d. Type | _____ |
| e. Priority | _____ |
| f. Planner Number | _____ |
| g. From Status | _____ |
| h. Thru Status | _____ |
| i. Item Number | _____ |
| j. Customer Number | _____ |
| k. Search Cross Reference | _____ |
| l. Document Type | _____ |

PROCESS MANUFACTURING PROCESSING:

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

COMMITMENT AND SUBSTITUTE PROCESSING:

12. 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

Printing Scheduling Information for Work Centers



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

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

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

31435		J. D. Edwards and Company										Page	-	1
		Schedule by Work Center										Date	-	14.03.98
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 manner whether you enter it on the Hours and Quantities form or the Payroll Time Entry form. If you want to interface with the Payroll system, you should use the Payroll Time Entry form to enter hours and quantities information.

After you enter hours and quantities, either manually or through payroll time entry, you can review and revise them before you 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 hours and quantities transactions (optional)

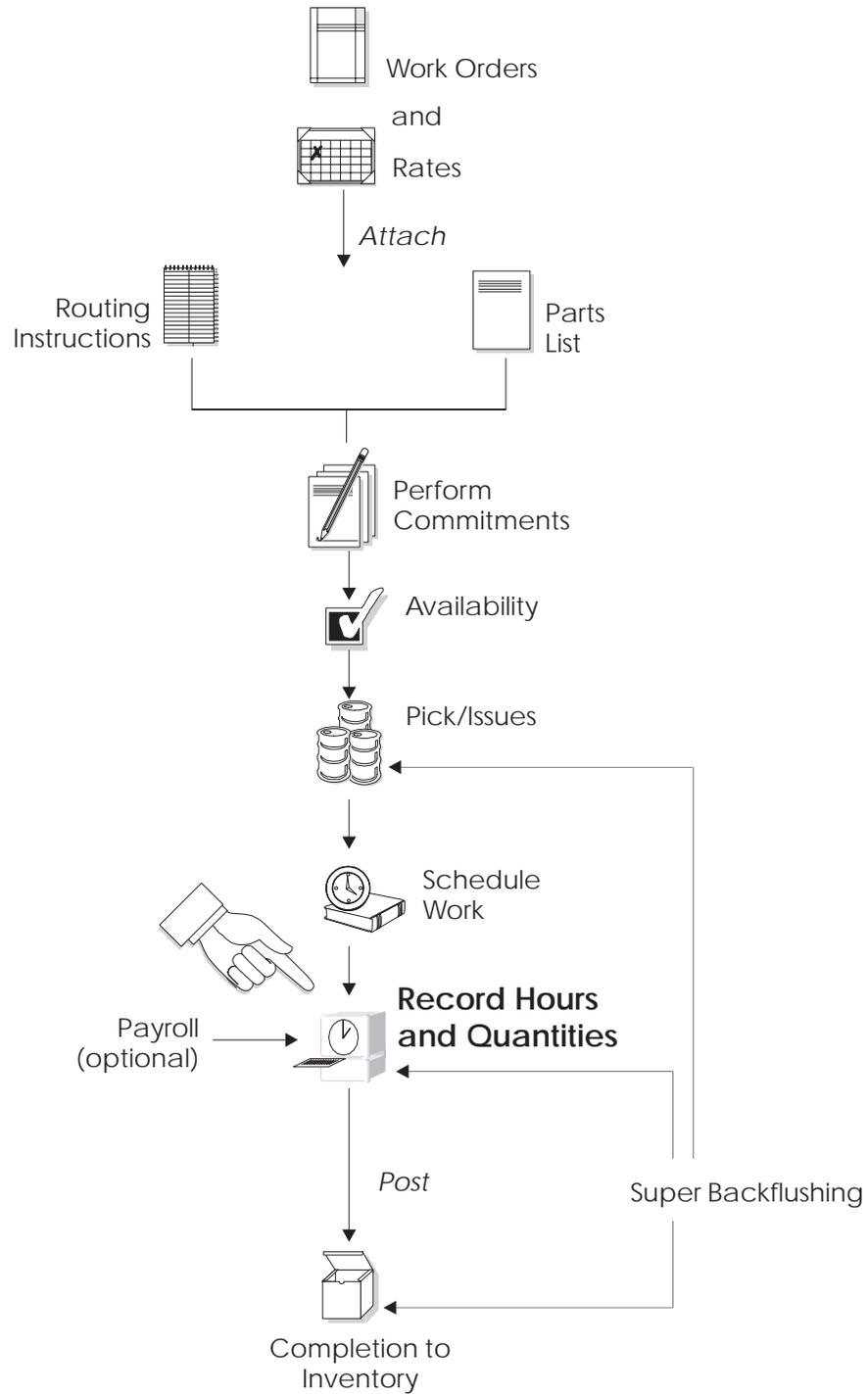
What You Should Know About

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).
Quality Management test results	<p>As you record actual hours and quantities to a work order, you can:</p> <ul style="list-style-type: none">• Access Test Results Entry for completed items that require testing.• Access generic text for the parent item.• Set processing options for default lot, work order and operation statuses. <p>See <i>Working with Test Results</i> in the <i>Quality Management Guide</i> for more information.</p>

See Also

- *About Work Orders in Accounting* in the *Product Costing and Manufacturing Accounting Guide*

Where in the Process Do You Enter Hours and Quantities?



Entering Hours and Quantities Manually



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

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

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

Note the following important information about entering hours and quantities:

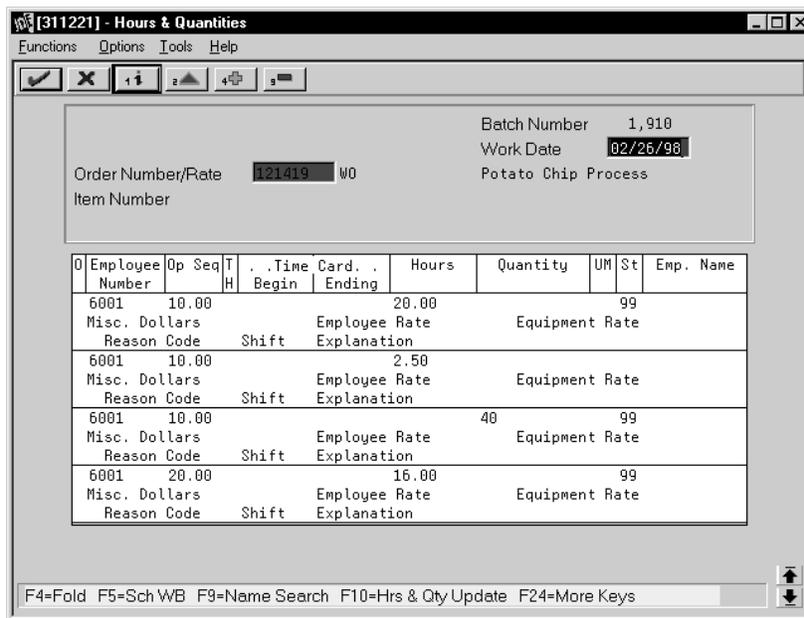
- Enter the quantity completed only once per operation sequence number. Entering it for each type of hours will cause a variance amount.
- Enter hours using beginning and ending times for each entry or the actual hours up to two decimal places.
- To reverse completed or scrapped quantities you have entered, 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	Op Seq	Time Card Begin	Time Card Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00			20.00			99	
6001	10.00			2.50			99	
6001	10.00				40		99	
6001	20.00			16.00			99	
6001	20.00				40		99	
6001	30.00			15.20			99	
6001	30.00			.25			99	
6001	30.00				40		99	
6001	40.00			7.20			99	
6001	40.00				40		99	
6001	50.00			2.00			99	
6001	50.00				40		99	

1. Complete the following fields:
 - Work Date
 - Shift
 - Order Number
 - Operation Sequence Number
 - Type of Hours
 - Hours
 - Quantity
 - Unit of Measure
 - Status
2. Access the detail area.



3. Complete the following optional fields:
 - Miscellaneous Dollars
 - Employee Rate
 - Equipment Rate
 - Reason Code
 - Explanation

Field	Explanation
Work Date	<p>A date that identifies the financial period to which the transaction is to be posted. The general accounting constants specify the date range for each financial period. You can have up to 14 periods. Generally, period 14 is for audit adjustments.</p> <p>The system edits this field for PBCO (posted before cutoff), PYEB (prior year ending balance), and so on.</p>
Op Seq	<p>In routings, this number is used to sequence the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, this number designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing for the item. The Shop Floor Control system uses this field in the backflush/preflush by operation process.</p> <p>In engineering change orders, this number is 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>..... <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>
T H	<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	<p>The number of hours associated with each transaction.</p>
Misc. Dollars	<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> <p>The employee's insurable gross pay for the listed pay period.</p>

Field	Explanation
Equipment Rate	<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>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	<p>A name or remark that describes an element in the J.D. Edwards systems.</p>

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 Quantity At Operation.

5. Enter a '1' to prevent employee rate from being written to screen.

QUALITY MANAGEMENT:

6. Enter the version of Test Results Revisions (P3711) to call. If left blank, version ZJDE0002 will be used.

Entering Hours and Quantities through Payroll Time Entry



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

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

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

- Designate hours as setup, labor, or machine related, and record them against a specific routing operation for the process
- Record the quantity of pieces completed and scrapped by the employee against a specific routing operation for the process
- Update the status of a routing operation for a process
- Access the Hours and Quantities form

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

▶ **To enter hours and quantities through payroll time entry**

On Payroll Time Entry

Pay	Order No	Op Seq	Time Begin	Card. Ending	Hours	Units	UM	St	Ovr/Rt	0
1	904	903	903		40.00				Secured	

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

13. Enter a '1' to use the Employee Pay Instructions Table - F06106. If left blank, the Employee Master hourly rate will be used.

14. Enter a '1' for HH:MM:SS format. If left blank, decimal format will be used (HH.MM).

----- BILLING RATE SELECTION -----

15. Leave Blank if special currency logic is not to be used in the billing rate retrieval.

Enter a '1' to use the Cost Plus Markup Table to retrieve the billing rate. If no billing rate is found an error message will be issued.

Enter a '2' to use the Cost Plus Markup Table to retrieve the billing rate. If no billing rate is found, for the domestic currency only, use the Payroll Billing Rate Tables to retrieve the billing rate.

Note

An error message will be issued if a billing rate is not found.

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

From the Daily Order Reporting – Discrete menu (G3112), choose Hours & Quantities Entry.

On Hours and Quantities

0	Employee Number	Op Seq	T H	. Time Begin	Card. Ending	Hours	Quantity	UM	St	Emp. Name

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**

From the Daily Order Reporting – Discrete menu (G3112), choose Hours & Quantities Update.

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 Hours and Quantities Transactions

After you enter hours and quantities, either manually or through payroll time entry, you can review and revise them before you 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.

Complete the following tasks:

- Review the status of hours, quantities, and operation quantities
- Review the hours and quantities report

Reviewing the Status of Hours, Quantities, and Operation Quantities

From the Daily Order Reporting – Discrete menu (G3112), choose Production Status.

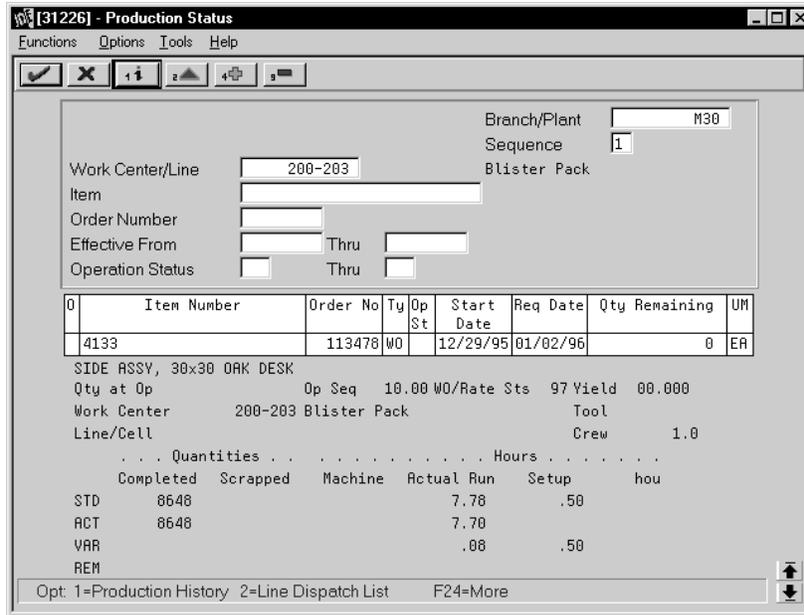
The Production Status program allows you to review the status of all work orders by work center, item number, or order number within status and date ranges. This program displays historical and work remaining information.

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

On Production Status

Item Number	Order No	Ty	Op St	Start Date	Req Date	Qty Remaining	UM
4133	113478	WO		12/29/95	01/02/96	0	EA
3999	113515	WO		12/29/95	01/02/96	0	EA
3980	113558	WO		12/29/95	01/02/96	0	EA
3981	113591	WO		12/29/95	01/02/96	0	EA
3982	113718	WO		12/29/95	01/02/96	0	EA
443	112361	WO		01/05/96	01/09/96	0	EA
3981	113603	WO		03/21/96	03/29/96	0	EA
3980	113566	WO		03/22/96	03/29/96	0	EA
3982	113726	WO		03/22/96	03/29/96	0	EA
4133	113486	WO		03/25/96	03/29/96	0	EA
3999	113523	WO		03/26/96	03/29/96	0	EA
443	112379	WO		03/27/96	03/29/96	0	EA

1. Complete the following fields:
 - Work Center/Line
 - Item Number
 - Branch Plant
2. Complete the following optional fields:
 - Order Number
 - Status
 - Date Range
3. Access the detail area.



Reviewing the Hours and Quantities Report

From the Daily Order Reporting – Discrete menu (G3112), choose Hours & Quantities Proof.

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

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

Shop Floor Control Discrete Manufacturing

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J.D. Edwards & Company
Hours & Quantities Journal

Page - 2
Date - 03.16.98

W.O. Number	Ty	W.O. Description	Employee Number	Employee Name	Op Seq	Work Date	T H	Hourly Rate	Machine	Hours 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									

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:

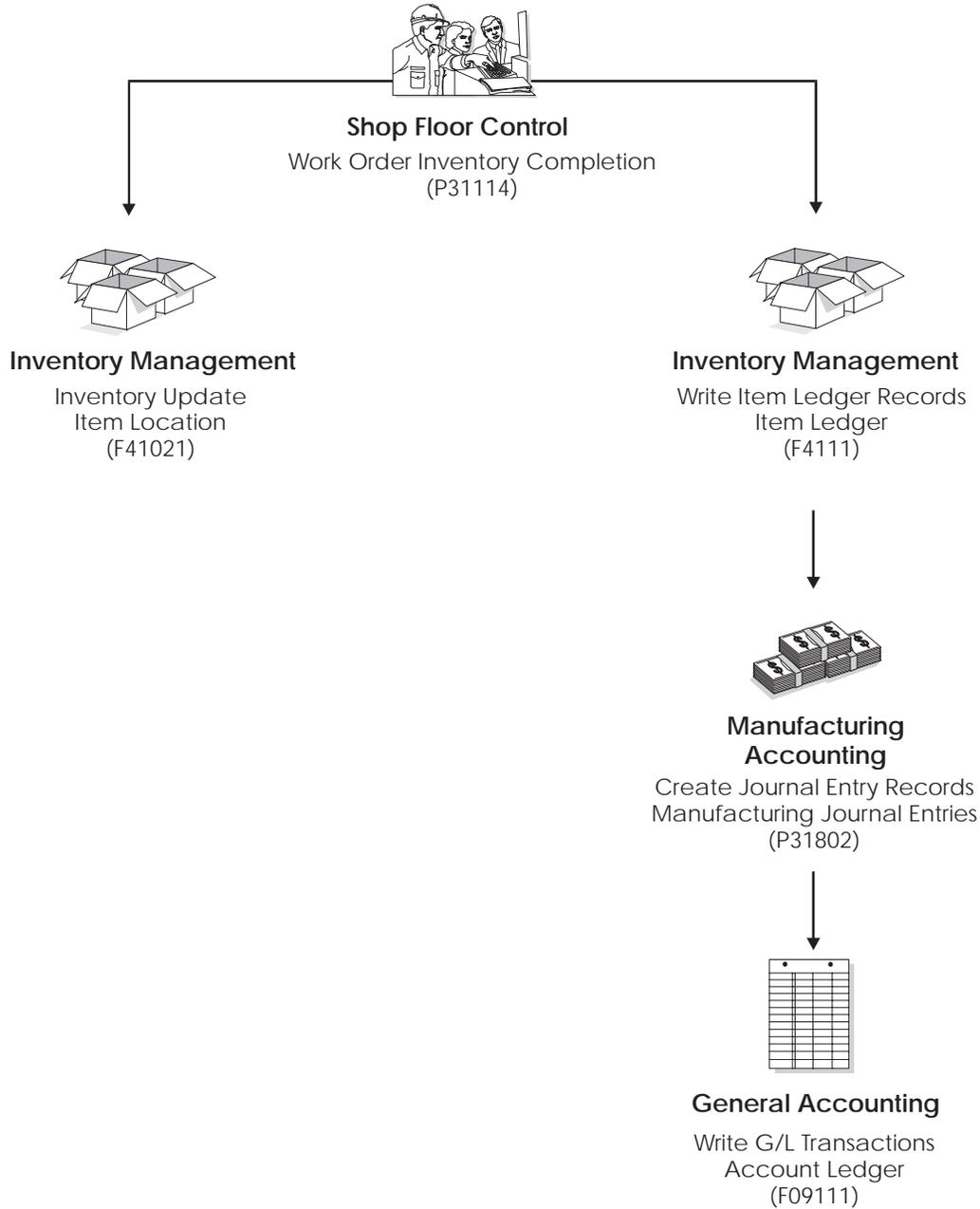
- Report all items as complete when the entire work order is finished
- Report partial completions as they occur throughout the production process

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 work orders (optional)
- Processing work orders through super backflush (optional)
- Processing work orders using quantity at operation (optional)
- Completing a work order with serialized components (optional)

What You Should Know About

Blending, filling, and packaging

When you complete a work order to a blending, holding, or storage tank, the system checks the tank capacity and displays an error if the completion would exceed the tank's capacity.

When you complete inventory the system allows you to access the Dip Volume Calculator/Meter Readings program to enter readings.

Work order completions allow you to enter ambient quantities and current temperature and/or density information. The system calculates and stores the standard quantity and weight accordingly.

See *Bulk Stock Management Guide*.

Quality Management test results

As you enter work order completions, including quantity completed and quantity scrapped, you can:

- Access Test Results Entry for any items requiring testing upon completion.
- Review work order generic text.
- Set processing options for default lot, work order, and operation statuses.

As you backflush labor and material for a work order, you can:

- Access Test Results Entry for any items that require testing.
- Review generic text for the parent item and operations.

See *Working with Test Results* in the *Quality Management Guide* for more information.

Warehouse Management system interface If you process transactions for a branch/plant that uses warehouse control, the Location Detail window appears when you enter backflush transactions, and a second location detail information record is created. In this case, you select Location Detail Information records for processing. To ensure that the quantities in the Location Detail Information table (F4602) are consistent, you should make a selection from the window.

The original quantity being processed through this transaction program, using the Location Detail window, displays in the top of the Super Backflush window.

If the item being processed has a unit of measure structure or storage containers, the system enters them in the detail area of the Location Detail window. Although you can override these values, the system performs the following edits:

- The primary unit of measure in the structure and the last level specified are valid based upon unit of measure conversions in Item Master.
- The units of measure display from largest to smallest.
- The structure must result in whole number conversions between units of measure.
- Each unit of measure can only contain one partial quantity for that unit of measure.
- You can only overfill pallet type units of measure as defined in the Unit of Measure Definition by Item or by Item Group.

The system always displays this window when adding inventory to the branch/plant, except in the following case:

- Removal of inventory and only one location detail record is in the location. The removal is automatically performed to the single location detail.

See Also

- *Understanding Lot Processing*
- *Quality Management Guide*

Completing a Work Order without Backflushing



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

From Daily Order Reporting – Discrete (G3112), choose Partial Completion

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

► To complete a work order without backflushing

On Partial Completion

Description	Quantities		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock				ER 07/11/97		
Branch/Plt	M30	Locn		Lot/SN		
Memo Lot 1		Reason Code		Lot/SN Status		
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. _____

LOT HOLD CODES:

7. Enter the lot hold codes (up to 5) to allow completions to, or enter a '*' to allow completions to all held lots. If left blank, completions will not be allowed to held lots. _____

SALES ORDER OPTIONS:

8. Select one of the following: _____

- 1 - Sales Order Number will default to the Work Order Completion Lot.
- 2 - Sales Order Number will default to the Work Order Completion Location and the Sales Order Line Number will default to the Work Order Completion Lot.
- 3 - Work Order Number will Default to the Work Order Completion Lot.

9. Enter a '1' to update the Sales Detail fields (Lot Number & Location) as defined in Option 8. If left blank, Sales Detail will not be updated.

NOTE: Processing Option 9 must be used in conjunction with 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.

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.

LOT/SERIAL NUMBER OPTIONS:

- 16. a. Enter a '1' to allow overriding the Lot/SN upon completion.
- b. Enter a '1' to protect the Lot/SN from entry. If left blank, the Lot/SN will remain input capable.

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 a '1' to allow unplanned co- and by-product completions. _____

19. Enter '1' to issue ingredients for each co- or by-product separately. If left blank, ingredient issues will be consolidated for the process. _____

WAREHOUSE PROCESSING:

20. Enter the Directed Putaway mode: _____
Blank - 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 left blank, ZJDE0001 is used. (See Form ID P46171). _____

SERIAL NUMBER PROCESSING:

22. Enter a '1' to allow a completion to a serial number that exists in the system with a zero quantity. _____

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:

25. Enter the version of Test Results Revisions (P3711) to call. If left blank, version ZJDE0002 will be used. _____

BRANCH/PLANT CONTROL:

28. Enter a '1' to display the completion Branch/Plant field. _____

Completing a Work Order through Backflush

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

Completing a work order through backflush consists of:

- Completing a work order
- Releasing sales backorders during completions (optional)
- Managing completions using receipts routing (optional)

Before You Begin

- Set the appropriate processing options to access the Inventory Issues program and to identify the version to use
- Before you release backorders during completion, set processing options to enable backordered sales orders to appear and to identify the version of the Backorder Release program to use
- Before you can manage completions using Receipts Routing, set a processing option to initiate the receipt routing process

▶ To complete a work order

From the Daily Order Reporting – Discrete menu (G3112), choose Completion with Backflush.

On Completion with Backflush

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 ER
Quantity Completed
Quantity Scrapped
Current Status Code 40

Description	. . . Quantities . . .		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock				ER 07/11/97		
Branch/Plt M30	Locn	Reason Code		Lot/SN		Lot/SN Status
Memo Lot 1						
Memo Lot 2						

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

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.

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

Field	Explanation
UM	<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 release sales backorders during completions**

From the Daily Order Reporting – Discrete menu (G3112), choose Completion with Backflush.

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

On Completion with Backflush

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

The Back Order Release form appears.

0	Promised Delivery	Pr Cd	Order Number	Or Ty	Item Number	Quantity Backordered	Quantity To Ship
	11/15/96		26959	SO	5120	50	50
	12/15/96		26960	SO	5120	40	40

Opt: 2=SO Detail F5=Open Order F15=Cust/Item F17=Item Avail F24=More

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**

From the Receipt Routing menu (G43A14), choose Routing/Analysis Revisions.

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

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

You enter disposition information for a route in the Procurement system when you use the Disposition Setup program. This information includes whether items dispositioned out of a receipt route are eligible for payment. If you classify a category as eligible for payment, the system creates journal entries when it disposes 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.

For manufactured items, the supplier must be *WO.

On Routing/Analysis Revisions

0	Item	Description	St. Ty	Route Norm	Alt	Effective From	Thru
	5120	Oak Desk With Chair		RAND		07/27/93	12/31/10

Complete the following fields:

- Normal Route
- Effective From
- Effective Through

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 shown on Completion with Backflush, do the following:

- Access Multiple Locations
- Move commitments
- Issue the material

Locating the status of the receipts routing

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

See Also

- *Reviewing Manufacturing AAls (P40901) in the Product Costing and Manufacturing Accounting Guide*
- *Entering Receipts in the Procurement Guide*

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. _____
- 8. Enter a '1' to display orders on hold. If left blank, orders on hold will not display. _____

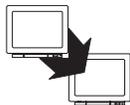
RELEASING OPTIONS:

- 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 Work Orders



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

From Daily Order Reporting – Discrete (G3112), choose Partial Completion

You can use the Completion program to record completed quantities for a work order in one of two ways:

- Full completion allows you to complete all quantities for all materials on a work order.
- Partial completion allows you to complete parts of the quantity ordered for a work order.

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

Complete the following tasks:

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

► To complete partial quantities on work orders

On Partial Completion

Branch/Plant M30
Requested 01/16/98

Order Number 2426 W0
Item Number 5120
Quantity Ordered 50 ER
Quantity Completed
Quantity Scrapped
Current Status Code 40

Description	Quantities Completed	Quantities Scrapped	UM	Date Complete	St	% of Ordered
Completed Items to Stock				07/11/97	ER	

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

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.

[42053] - Select Multiple Locations

Functions Tools Help

Line No Line Qty 10 Brn/Plt M30

Item No 5120 Oak Desk With Chair

Total Sel 10

Qty Under:

Quantity	Location	Lot	Brn/Plt	Available
10			M30	20

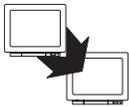
Enter=Exit (Save Qty) F3=Exit (Restore Qty) F22=Refresh F24=Keys

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 Work Orders through Super Backflush



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

From Daily Order Reporting – Discrete (G3112), choose Super Backflush

Super Backflush is a DREAM Writer batch program that creates backflush transactions against a work order or rate schedule at pay points defined in the routing. Super backflushing allows you to relieve inventory at strategic points throughout the manufacturing process.

For example, you manufacture bicycles. Not all parts are required at the first operation. As component material is brought into the production process, it is relieved from inventory at points within this process. In this example, the cycle time might be three days.

Rather than relieving all parts for the work order or rate schedule at the start date, you can define more logical points within the production process to relieve the inventory as you use it. You can define operations in the parent item's routing at which various components are needed and at which operation you want the system to record the inventory transaction.

You can enter completed and scrapped quantities by operation and employee. The system automatically completes the work order, or you can review and revise the transactions. The backflush procedure can perform the following transactions by operation:

- Issue parts to the work order or rate schedule
- Record hours and quantities against the work order or rate schedule at standard values
- Record inventory completions

The system records the transactions from the pay point you indicate in the routing back to the first operation or the previous pay point, if one has been defined.

You can set processing options for the Super Backflush program to:

- Indicate the versions of associated programs to access
- Select document types to be used when creating transactions
- Select update status codes for operations and the work order or rate schedule header
- Indicate a status code beyond which entries to work orders or rate schedules cannot be made
- Store hours and quantities in related tables for later processing by manufacturing accounting
- Either access a specified version of the following programs or automatically execute the process without the form displaying:
 - Hours and Quantity
 - Material Issues
 - Work Order Completions

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

On Super Backflush

The screenshot shows the 'Super Backflush' window for work order 65103. The window title is '[31123] - Super Backflush'. The menu bar includes 'Eunctions', 'Options', 'Tools', and 'Help'. The main area displays the following information:

- Branch/Plant: M30
- Requested: 12/15/98
- Qty Ordered: 40 EA
- Qty Complete: (blank)
- Qty Scrapped: (blank)
- Order Number: 65103 W0 5120
- Description: Oak Desk With Chair
- Transaction Date: 07/11/97 Shift (blank)

Below this information is a table with the following columns: Work Center, Op Seq, Description, Employee, Qty Comp, Qty Scrap, UM, and St.

Work Center	Op Seq	Description	Employee	Qty Comp	Qty Scrap	UM	St
200-204	10.00	Assemble frame				EA	
200-204	20.00	Assemble sides/bac				EA	
200-204	30.00	Attach drawer slid				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 keyboard shortcuts: F8=W.O. Header, F15=Scheduling Workbench, and F24=More Keys.

1. Complete the following fields:

- Order Number
- Transaction Date
- Shift
- Employee
- Quantity Complete
- Status

2. Access the detail area.

The screenshot shows a software window titled "[31123] - Super Backflush". The window has a menu bar with "Eunctions", "Options", "Tools", and "Help". Below the menu bar is a toolbar with several icons. The main area contains the following information:

Order Number: 65103 W0 5120
 Transaction Date: 07/11/97 Shift:
 Branch/Plant: M30
 Requested: 12/15/98
 Qty Ordered: 40 EA
 Qty Complete:
 Qty Scrapped:
 Description: Oak Desk With Chair

Work Center	Op	Seq	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/bac				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 slid				EA	
Pay Point Code	0		Pay Point Status		Standard Quantity		40	EA
					Qty at Operation			
					Total Completed			
					Total Scrapped			

At the bottom of the window, there is a status bar with the following text: "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.

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

On Work Order Inventory Issues, the system automatically provides values in the following fields:

- Status
 - Issues
 - Unit of Measure
 - Branch/Plant
 - Location
4. Process all transaction forms and the system processes the information according to the issue type code and pay point type assigned to each operation.

If an operation is defined as a pay point, and the pay point is set up to issue material and report labor, when the operation is recorded as complete, the system issues the ingredients and backflushes labor from the last defined pay point up to the previous pay point.

The W.O. Time Entry form appears.

Batch Number
Work Date 07/11/97

Order Number/Rate 65103 W0
Item Number 5120 Oak Desk With Chair

Employee Number	Op Seq	T H	. Time Begin	. Time Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1	00:00:00	00:00:00	5.00			20	Allen, Ray
6001	10.00	2	00:00:00	00:00:00	.62			20	Allen, Ray
6001	10.00	4	00:00:00	00:00:00		10	EA	20	Allen, Ray
6001	20.00	1	00:00:00	00:00:00	4.00			20	Allen, Ray
6001	20.00	4	00:00:00	00:00:00		10	EA	20	Allen, Ray

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

5. On W.O. Time Entry, review the following fields:

- Employee Number
- Operation Sequence Number
- Type of Hours
- Beginning Hours
- Ending Hours
- Hours
- Quantity
- Unit of Measure
- Status
- Employee Name

The Work Order Completion form appears.

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

What You Should Know About

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.

Blending, filling, and packaging

When you use the Super Backflush program with bulk products the system:

- Updates the previous product on the Work Center Master
- Updates the current or previous product on the Tank Master
- Writes a bulk item ledger record along with the Item Cardex.

See *Bulk Stock Management*.

See Also

- *Reviewing the Status of Hours, Quantities, and Operation Quantities* for information on the statuses of work orders

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:

- 18. Enter the version of Test Results Revisions (P3711) to call. If left blank, version ZJDE0002 will be used. _____

Processing Work Orders Using Quantity at Operation



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

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

You report quantities against work order operations using either Hours and Quantities or Super Backflush. These programs differ in the following ways:

- Hours and Quantities allows entry of different types of hours worked, in addition to quantities.
- Super Backflush allows entry of quantities only.
- Hours and Quantities runs in batch mode. After you enter hours and quantities, you can review and revise these hours and quantities until you update the work order routing.
- You update Super Backflush quantities online.

You can enter completed and scrapped quantities by operation and employee. The system completes the work order if the last operation is defined as a pay point, or you can review and revise the transactions. However, quantities completed at a given operation cannot exceed the quantity completed at the preceding operation. For example, Super Backflush totals the entries for quantity completed and scrapped for the operation and compares that to the quantity at operation. If the total exceeds the quantity at operation, the system highlights the fields and displays an error message.

When you use Hours and Quantities entry, before the update process, the system verifies the quantity at operation as though the transactions were updated in the Work Order Routing table. The system uses the previously entered data to verify the quantity at operation. This only occurs for data entered on the current day or previous to the current day.

You can set a processing option for the Super Backflush program to indicate whether the system verifies, for a given operation, that the total quantity completed plus scrapped does not exceed the quantity at operation.

Before You Begin

- Set the appropriate processing option to verify the total of the quantity completed plus scrapped does not exceed the Quantity at Operation for a given operation

► **To complete a work order using quantity at operation**

On Hours and Quantities

The screenshot shows a software window titled "[311221] - Hours & Quantities". The window contains a form with the following fields:

- Batch Number: 1879
- Work Date: 09/08/98
- Order Number/Rate: 133647 W0
- Item Number: 333
- ORK SHELF UNIT

Below the form is a table with the following columns: Employee Number, Op Seq, T, .Time Card. Begin, .Time Card. Ending, Hours, Quantity, UM, St, and Emp. Name.

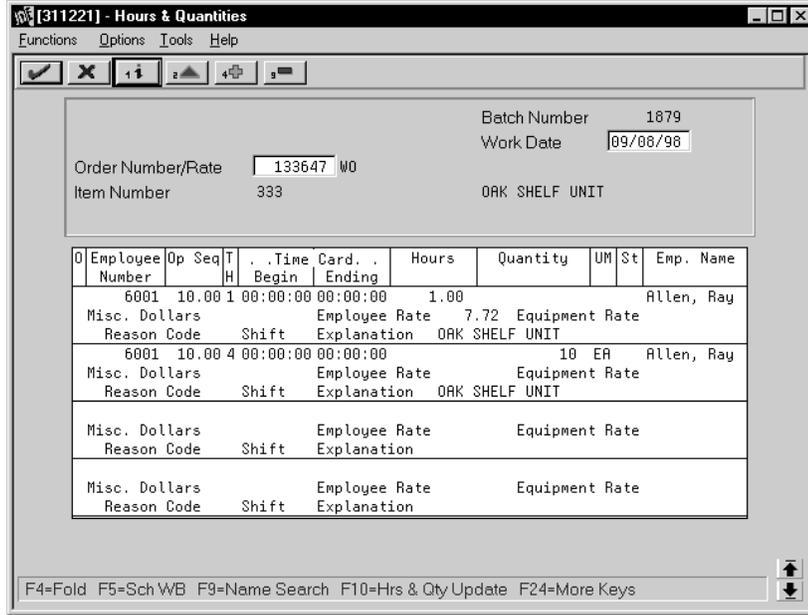
Employee Number	Op Seq	T	.Time Card. Begin	.Time Card. Ending	Hours	Quantity	UM	St	Emp. Name
6001	10.00	1	00:00:00	00:00:00	1.00				Allen, Ray
6001	10.00	4	00:00:00	00:00:00		10	EA		Allen, Ray

At the bottom of the window, there is a status bar with the following text: F4=Fold F5=Sch WB F9=Name Search F10=Hrs & Qty Update F24=More Keys.

1. Complete the following fields:

- Work Date
- Shift
- Order Number
- Employee Number
- Operation Number
- Type Hours
- Hours
- Quantity Complete

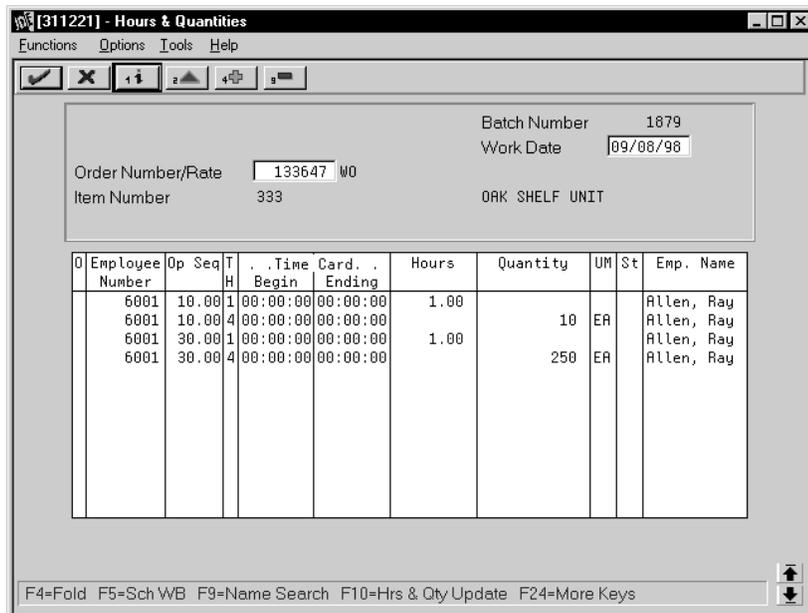
2. Access the detail area.



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:



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 Quantity At Operation.

5. Enter a '1' to prevent employee rate from being written to screen.

QUALITY MANAGEMENT:

6. Enter the version of Test Results Revisions (P3711) to call. If left blank, version ZJDE0002 will be used.

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

Completing a Work Order with Serialized Components



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

From Daily Order Reporting – Discrete (G3112), choose Full Completion

When you record a completion for serialized assemblies, the system accesses the Associate Issued Item LSN's program. The associations form is only accessible if you are associating serial number controlled components to serial number assemblies. The system displays the pre-assigned serial numbers and any memo lot information.

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

Branch/Plant M30
Requested 01/07/98

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

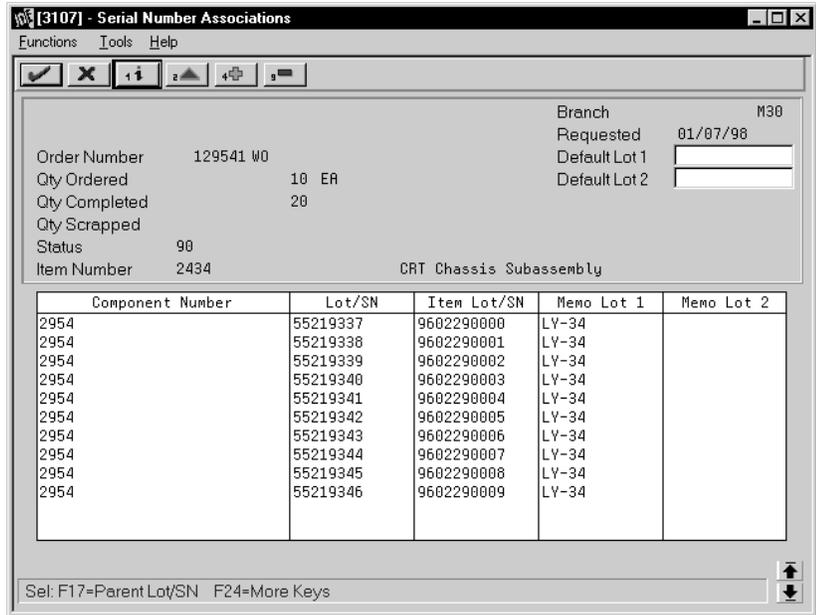
Quantity Ordered 10 EA
Quantity Completed 20
Quantity Scrapped
Current Status Code 90

Description	Quantities		UM	Date Complete	St	% of Ordered
	Completed	Scrapped				
Completed Items to Stock				EA	07/11/97	90 200.000
Branch/Plt	M30	Locn		Lot/SN		
Memo Lot 1		Reason Code		Lot/SN Status		
Memo Lot 2						

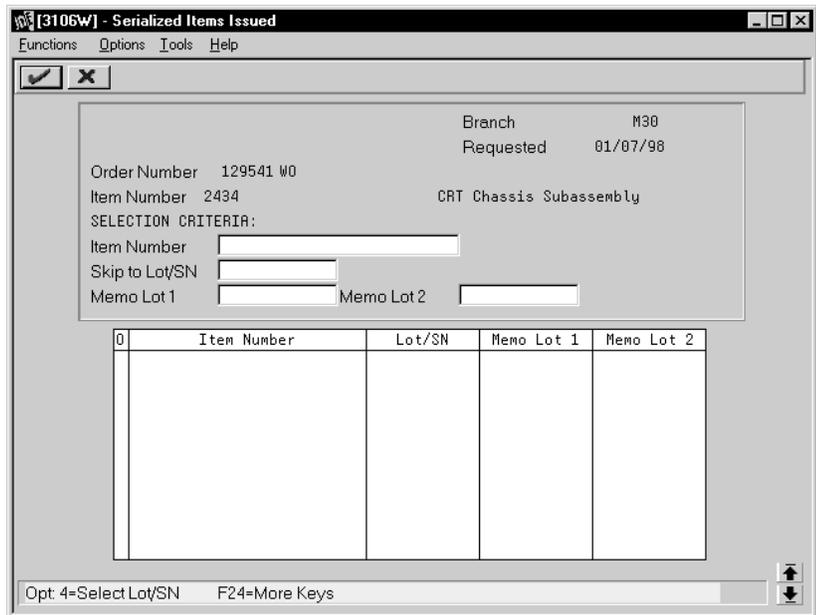
F16=Multi Location Search F10=Scheduling Workbench F24=More Keys

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.



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



Exercises

See the exercises for this chapter.

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 Lot Serial Number 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.

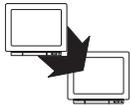
Deleting an order

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”



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

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

To close a work order without deleting it from the system, you change the status of the order.

► To change the status of a work order to “closed”

On Enter/Change Order

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. _____

4. Enter a '1' to protect the lot number on the parts list. If left blank, the lot number will remain input capable. _____

CHARGE TO BUSINESS UNIT DEFAULT:

5. Enter a '1' to default the Charge to Business Unit from the Job number in the Business Unit Master file (F0006). If left blank, the Branch/Plant will be used. _____

BILL AVAILABILITY:

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

DEFAULT PROCESSING:

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

 - 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:

- 8. 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:

- 9. 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:

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

PROCESS MANUFACTURING PROCESSING:

- 11. 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:

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

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

COMMITMENT AND SUBSTITUTE PROCESSING:

- 14. 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:

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

SERIAL NUMBER PROCESSING:

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

PRIOR REVISIONS:

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

WAREHOUSE PROCESSING:

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

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

20. 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) _____

21. 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. _____

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:

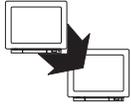
24. Enter the cross reference code for retrieving item replacements for obsolete items. _____

ECS PROCESSING:

25. Enter the program ID of the Formula Optimization routine to be called when the function key to Optimize the formula is selected from the _____

Ingredients List Program (P3111).

Purging a Work Order



From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Purge Orders

Work Order Purge is a DREAM Writer batch program that deletes selected work orders from your system. The system purges the selected work orders and their associated information from the following tables:

- Work Order Master (F4801)
- Work Order Instruction/Disposition (F4802)
- Shop Floor Control Parts List (F3111)
- Shop Floor Control Routing Instructions (F3112)
- Work Order Time Transactions (F31122)

When you purge work orders, you can:

- Purge unlimited work orders based on their status codes
- Automatically delete associated parts lists and routings
- Save the work order information in a special purge file

Before You Begin

- Complete the accounting for the work orders you intend to purge before you purge them from the system. See *Working with Work Orders* in the *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 OPNQRYF, the logical file built over the purged file is included in the reorganization. This might increase the time required to perform the file reorganization.

Using OPNQRYF

If you use OPNQRYF to select records to be purged, you must specify at least one field in data sequencing and set the Delete field in additional parameters to Y for the DREAM Writer version that you use.

Processing Options 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.)

Process Kanbans

Processing Kanbans

While the requirements for material is driven by demand, the movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories. Two programs manage the electronically implemented kanbans. Processing kanbans includes the following tasks:

- Processing kanban consumption by item
- Processing kanban supply by item

Use the consumption program to access kanbans at a consuming location, and the supply program to access kanbans at a supplying location, by specifying one or any two of the following criteria:

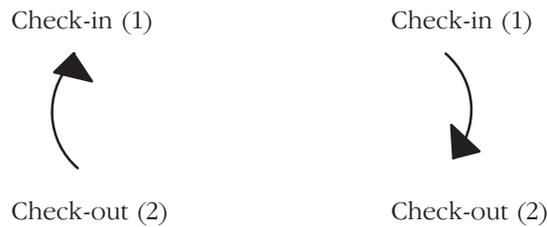
- Item
- Location
- Supplier
- Kanban identification

You process kanbans in one of two modes:

- One-Phase
- Two-Phase

One-Phase

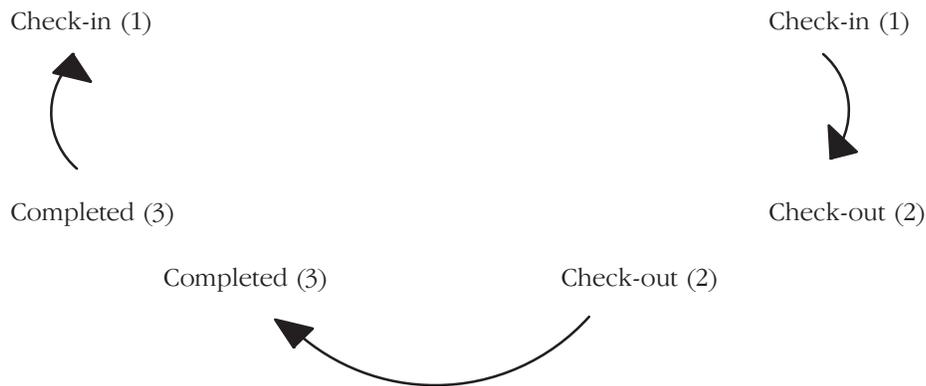
One-phase assumes the completion and transfer to the consuming location are performed in one step, in which you complete the quantity directly to the consuming location and change the kanban status to checked-in (1).



Two-Phase

Two-phase assumes the completion and transfer are reported separately. You complete the quantity to the supplying location and change the kanban status to completed (3). After the quantity has physically been received at the consuming location, a transfer from the supplying location to the consuming location occurs, and the kanban status is changed to checked-in (1).

If you check in a kanban quantity from the supplier, the system can initiate a receipt transaction if the kanban master flag is on.



You can process kanbans for items that are:

- Inventoried
- Manufactured (sub-assemblies/phantoms)
- Externally supplied

Inventoried Items Processing

When you check out a kanban that is inventoried, the kanban status is changed. The supplying location replenishes the kanban quantity. You then complete and check in the kanban, which results in an inventory transfer transaction.

Manufactured Processing

When you check out a kanban that is manufactured, the program either creates a work order, or looks for an existing rate. It bases its action on the items' order policy code. (If the system does not find a rate, it creates one.) When the system creates a rate, it automatically attaches the parts list and routing. When you check in the kanban, you complete the work order or rate, issue parts, enter hours and quantities, and transfer the parent item to the consuming location.

Manufactured Processing – Phantom Item

When you check out a kanban supplied by a work center/production line, and the item is a phantom, no transactions outside of inventory transfers occur. There are no work orders or rates to process; the item is simply replenished by the producing line and the kanban is completed and checked in. This results in an inventory transfer transaction, from the supplying location to the consuming location.

Externally Supplied Processing

When you check out kanbans from an external supplier, the system may create a new purchase order, or use an existing one. However, there must be an open purchase order for the item. In addition, when you check out the kanban, the system may also initiate an Electronic Data Interchange (EDI) transaction. When you check in kanbans from an external supplier, the system may optionally perform a receipt against the purchase order.

Processing Kanban Consumption by Item



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Kanban Consumption

Kanban Consumption allows you to access all kanbans at a given consuming location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a consuming location:

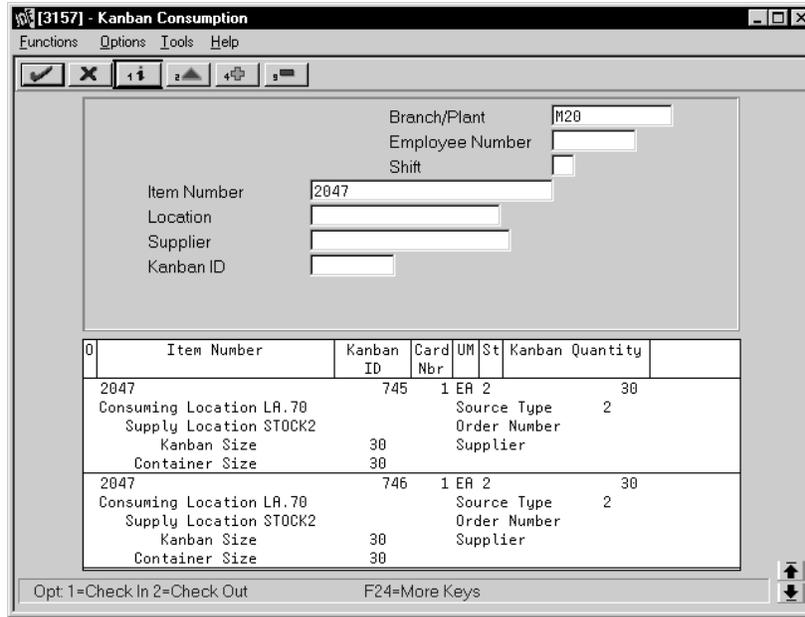
- Checked-in (1)
- Checked-out (2)

► To process kanban consumption by item

On Kanban Consumption

0	Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
	2047	745	1	EA	2	30
	2047	746	1	EA	2	30

1. Complete the following fields:
 - Item Number
 - Branch/Plant
2. Complete the following fields to check-in a kanban that was supplied by the production line and a rate or work order was created:
 - Employee Number
 - Shift
3. Access the detail area.



4. To check in the item, enter a 1 in the following field next to the item number:
 - Option
5. To check out the item enter a 2 in the following field next to the item number:
 - Option

Processing Options for Kanban Consumption

RATE BASED INFORMATION:

1. Enter the version of rate schedule revision (P3109) to be used
(Default is ZJDE0001)

WORK ORDER INFORMATION:

2. Document type (Default is 'WO')
3. Beginning Status
4. Enter a '1' to attach part list and routing
5. Enter the version of for J31410
(Default is ZJDE0001)
6. Close Status for rate or work order

PURCHASE ORDER INFORMATION:

7. Enter the document type for purchase order (Default is 'OP')
8. Enter a '1' to trigger EDI862 transaction
9. Enter the version of Purchase Orders Print (P43500) to be called to generate EDI 862 transaction
(Default is XJDE0008)
10. Enter the version of open purchase orders (P430301) to be called.

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(Default is ZJDE0007)

11. Enter the default route type to be used to search for a receipt route. _____
12. Enter the value of the default route to be used for items without a receipt route setup. _____
13. Enter the version of Receipt by PO/Item/Account to call. If left blank, will default to 'ZJDE0008'. _____
14. Enter a '1' to create purchase order _____
15. Enter the beginning line status _____

SHOP FLOOR ACTIVITY INFORMATION:

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

BLIND HOURS AND QUANTITIES ENTRY:

17. Enter the Document Type associated with Shop Floor Activity. (Default is 'IH') _____

WORK ORDER ISSUES INFORMATION:

18. 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:

19. Enter the Document Type associated with a Work Order Issue. _____

WORK ORDER COMPLETION INFORMATION:

20. 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:

21. Enter the Document Type associated with an Inventory Completion. _____
22. Enter the Document Type associated with an Inventory Scrap. _____

STATUS CODES DEFAULTS:

23. Enter the default Operation Status Code for Partial Completions. _____
24. Enter the default Operation Status Code for Full Completions. _____
25. Enter the Status Code for update to the Work Order Header. _____

26. Enter the default Material Status Code for Issues.	_____
INVENTORY TRANSFER:	
27. Enter the Version of the Inventory Transfer Program to call. If left blank, a blind Inventory Transfer execution will be performed.	_____
BLIND INVENTORY TRANSFER:	
28. Enter the Document Type associated with an Inventory Transfer.	_____
DEFAULT VALUES:	
29. Enter the default value for Item Number.	_____
30. Enter the default value for location.	_____
WAREHOUSE PROCESSING:	
31. Enter the Directed Putaway mode. ' ' : No Directed Putaway requests '1' : Request Putaway only. '2' : Request Putaway and process using the subsystem.	_____
32. If processing putaway requests through the subsystem, enter the DREAM Writer version to be used. If blank, ZJDE0001 is used. (See Form ID P46171)	_____
Transaction Confirmation	
33. Enter '1' to be prompted to confirm transaction	_____

Processing Kanban Supply by Item



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Kanban Supply

Kanban Supply allows you to access all kanbans that need replenishment for items stored or produced at a given supplying location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a supplying location:

- Checked-in (1)
- Completed (3)

Inventory and statuses are affected as follows:

- One-phase — inventory is immediately received and available at the consuming location, and the status is changed to checked-in (1).
- Two-phase — the completion and transfer are reported separately:
 - The quantity is completed to the supplying location, the kanban status is changed to a complete (3).
 - After the quantity has physically been received at the consuming location, a transfer is performed from the supply location to the consuming location and the kanban status is changed to checked-in (1).

► To process kanban supply by item

On Kanban Supply

0	Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
	2037	725	1	EA	2	30
	2037	726	1	EA	2	30

1. Complete the following fields:
 - Item Number
 - Branch/Plant
2. Complete the following fields to check in a kanban that was supplied by the production line and a rate or work order was created:
 - Employee Number
 - Shift
3. Access the detail area.

Branch/Plant M20
 Employee Number
 Shift
 Item Number 2037
 Location
 Supplier
 Kanban ID

Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
2037	725	1	EA	2	30
Consuming Location LA.10				Source Type	1
Supply Location LC.50				Order Number	
Kanban Size		30		Supplier	
Container Size		30			
2037	726	1	EA	2	30
Consuming Location LA.10				Source Type	1
Supply Location LC.50				Order Number	
Kanban Size		30		Supplier	
Container Size		30			

Opt 1=Check In 3=Complete F24=More Keys

4. To check in the item, enter a 1 in the following field next to the item number:
 - Option
5. To complete the item, enter a 3 in the following field next to the item number:
 - Option

Processing Options for Kanban Supply

RATE BASED INFORMATION:

1. Enter the version of rate schedule revision (P3109) to be used
(Default is ZJDE0001)

WORK ORDER INFORMATION:

2. Enter the document type for work orders (Default is 'WO')
3. Close Status for rate or work order

PURCHASE ORDER INFORMATION:

4. Enter the document type for purchase order (Default is 'OP')
5. Enter the default route type to be used to search for a receipt route.
6. Enter the value of the default route to be used for items without a receipt route setup.
7. Enter the version of Receipt by PO/Item/Account to call. If left blank, will default to 'ZJDE0008'.

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SHOP FLOOR ACTIVITY INFORMATION:

8. Enter the version of the Hours and Quantity Program to call
If left blank, a blind Hours and Quantity execution will be performed

BLIND HOURS AND QUANTITIES ENTRY:

9. Enter the Document Type associated with Shop Floor Activity.
(Default is 'IH')

WORK ORDER ISSUES INFORMATION:

10. 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:

11. Enter the Document Type associated with a Work Order Issue.

WORK ORDER COMPLETION INFORMATION:

12. 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:

13. Enter the Document Type associated with an Inventory Completion.
14. Enter the Document Type associated with an Inventory Scrap.

STATUS CODES DEFAULTS:

15. Enter the default Operation Status Code for Partial Completions.
16. Enter the default Operation Status Code for Full Completions.
17. Enter the Status Code for update to the Work Order Header.
18. Enter the default Material Status Code for Issues.

INVENTORY TRANSFER:

19. Enter the Version of the Inventory Transfer Program to call.
If left blank, a blind Inventory Transfer execution will be performed.

BLIND INVENTORY TRANSFER:

20. Enter the Document Type associated with an Inventory Transfer.

DEFAULT VALUES:

21. Enter the default value for Item Number.

22. Enter the default value for location. _____

WAREHOUSE PROCESSING:

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

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

Transaction Confirmation

25. Enter '1' to be prompted to confirm transaction _____

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 work order status (optional)
- Review parts list comparison (optional)

See Also

- *Reviewing Availability (P30205)*
- *Reviewing Availability (P3121)*
- *Managing Shortage Information (P3118)*
- *Reviewing Hours and Quantities Transactions*

Reviewing Material Information

You can choose from three different programs to review information:

- Component Useability
- Summary Availability
- Supply/Demand

Use the Component Useability program to display the quantity of a parent item that can be produced based on the component quantity. The system adjusts the production quantity in relation to the component quantity. This is useful in determining what can be produced based on component material on hand. You can restrict the data that is displayed to a specific lot, grade, or potency of the item.

Use the Summary Availability program to check the availability of an item in your branches or plants. You can display the date in detail or summary mode, and for one branch or all of your branches.

Processing options allow you to omit item records that have a zero quantity available and control which versions of associated programs are used when you access them. In addition, you can use the processing options and certain fields to display availability by grade or potency ranges.

Use the Supply/Demand program to show the demand, supply, and available quantities for an item in your inventory. You can access other forms to confirm detail information on work orders, parts lists, purchase orders, and sales orders. The information is interactively displayed from Purchase Order Management (system 42), Shop Floor Control (system 31), and Sales Order Management (system 43).

Use the processing options in this program to:

- Include both supply and demand planned orders from the MPS/MRP/DRM Message table (F3411).
- Include forecast demand from the Forecast table (F3460).
- Display an Available to Promise line that calculates the units available for sale or distribution before the arrival of future supplies.
- Display a Cumulative Available to Promise line that calculates the running total of Available to Promise.
- Specify which version of associated DREAM Writer programs are used when you access the programs. You should use the same program version for each Distribution Requirements Planning generation you run to ensure that your data is consistent between systems.
- Set up different versions of inclusion rules to include the document type, line type, and status of each purchase order, sales order, or work order. This program's processing option for the Supply/Demand Inclusion Rules must contain a valid version of inclusion rules from the MPS/MRP Resource Rules table (F34004). You should set this option to use the same version that you use in your Distribution Requirements Planning generation in order to facilitate tracking among the systems.

Reviewing material information consists of:

- Reviewing component useability
- Reviewing summary availability
- Reviewing supply and demand information
- Printing supply and demand

Before You Begin

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

▶ To review component useability

From the Daily Order Preparation – Discrete menu (G3111), choose Component Useability.

On Component Useability

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

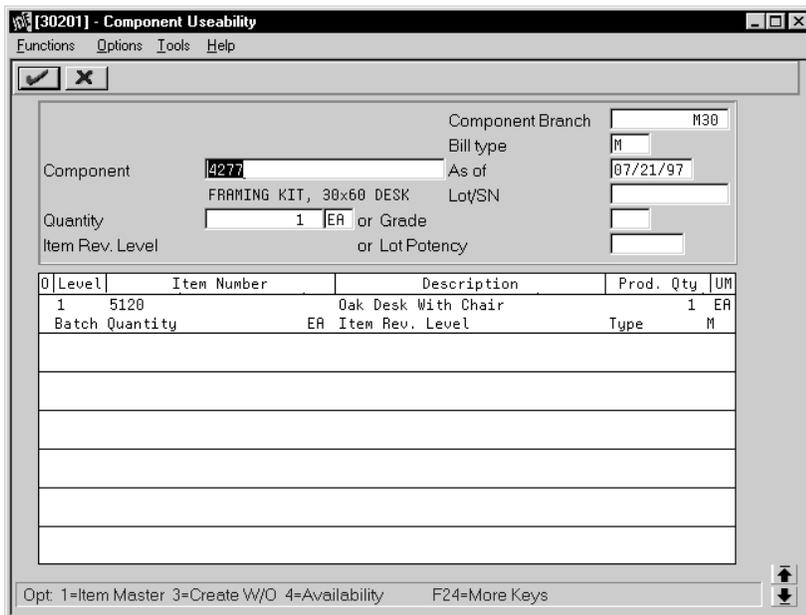
1. Complete the following fields:

- Component
- Quantity

The following fields display component information:

- Item Number
- Production Quantity

2. Access the detail area.



The following fields display component information:

- Batch Quantity
- Type

Field	Explanation
2nd 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**

From the Daily Order Preparation – Discrete menu (G3111), choose Summary Availability.

On Summary Availability

Q PS	Location	On Hand	Committed	Available	On Receipt
P		445	445		31895
Totals:		445	445		31895

Opt 1=Detail Availability 2=Branch/Plant Information F24=More Keys

Complete the following field:

- Item Number

The following fields display item information:

- Primary/Secondary Storage Location
- Location
- On Hand
- Committed
- Available
- On Receipt

Field	Explanation
P S	<p>A value that indicates if this is the primary or secondary location for this item within this stocking location. Valid values are:</p> <ul style="list-style-type: none"> P Primary storage location S Secondary storage location <p>NOTE: You can only have one storage area within each branch or warehouse marked as primary. In some cases, the system uses the primary storage area as the default.</p>
Totals:	<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 Receipt	<p>The total number of items on receipt for a specific location. The total is based on the total number of items entered in the Quantity on Purchase Order Receipts and the Quantity on Work Order Receipt fields.</p>

► To review supply and demand information

From the Daily Order Preparation – Discrete menu (G3111), choose Supply/Demand.

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). The item description is "Oak Desk With Chair". Below the form is a table with the following data:

Demand	Supply	Available	Promise Date	Order No	Ty	Customer/Supplier Name
	445	445	07/21/97			On Hand Balance
		445	07/21/97			Available to Promise
	100	545	02/09/96	126287	WO	
2014		1469-	11/21/97	4663	SO	Edwards, J.D. & Company
	50	1419-	01/16/98	2428	WO	
		50	01/16/98			Available to Promise
	150	1269-	01/23/98	2452	WO	
			01/23/98			Available to Promise
150		1419-	01/23/98	18892	SO	Corporate Office Systems
140		1559-	01/23/98	8670	SO	Corporate Office Systems
45		1604-	02/04/98	18905	SO	Corporate Office Systems
110		1714-	02/11/98	18913	SO	Corporate Office Systems
50		1764-	02/11/98	18913	SO	Corporate Office Systems
	1002	762-	03/02/98		WO	

At the bottom of the window, there is a legend: Opt 1=WO 3=SO 4=PO 7=Rate F10=Sched F14=Msg F16=Peg F24=More

1. Complete the following fields:
 - Branch/Plant
 - Item Number
2. Access the detail area.

The screenshot shows a window titled "[4021] - Supply/Demand Inquiry". The window contains several input fields and a table. The input fields are: Branch/Plant (M30), Unit of Measure (EA), Thru Date, Item Number (5120), and Leadtime Level (5). The table below shows demand and supply data for the item "Oak Desk With Chair".

0	Demand	Supply	Available	Promise Date	Order No	Ty	Customer/Supplier Name
		445	445	07/21/97			On Hand Balance
	Parent W.O			Branch/Plant		M30	Lot/SN
	Parent B/P			Cust/Supp			Lot/SN Exp
	Parent Item						Lot/SN Sts
	Record Type	On Hand Balance					Location
			445	07/21/97			Available to Promise
	Parent W.O			Branch/Plant			Lot/SN
	Parent B/P			Cust/Supp			Lot/SN Exp
	Parent Item						Lot/SN Sts
	Record Type	Available to Promise					Location
		100	545	02/09/96	126287	W0	
	Parent W.O			Branch/Plant		M30	Lot/SN
	Parent B/P			M30 Cust/Supp			Lot/SN Exp
	Parent Item						Lot/SN Sts
	Record Type	Oak Desk With Chair					Location

Opt: 1=W0 3=SO 4=PO 7=Rate F10=Sched F14=Msg F16=Peg F24=More

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.

► **To print supply and demand**

From the Periodic Functions – Discrete menu (G3121), choose Supply/Demand.

The Supply and Demand report shows the supply, demand, and available quantities for an item. This report can include quantities of materials in:

- On-hand inventory
- Safety stock
- Sales orders
- Purchase orders
- Work orders
- MPS/MRP planned orders
- Forecasts
- Rate schedules

The information on this report and the processing options used to generate it are the same as on Supply/Demand Inquiry.

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

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. _____

FORMAT CONTROL:

Where Used Detail (P13226)

1. Enter a '1' to display the Equipment screen format. Leave blank (default) to display the Work Order format screen. _____
(NOTE: This option is only valid if system 13 (Equipment) is available.)

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. _____

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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) _____

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. _____

DREAM WRITER 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 to include
- a. Forecast Type _____
 - b. Forecast Type _____
 - c. Forecast Type _____
 - d. Forecast Type _____
 - e. Forecast Type _____

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



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

From Periodic Functions – Discrete (G3121), choose Item Ledger

Use the Item Ledger program to display a detailed history of the transactions that have occurred for an item. The transactions include:

- Inventory issues, adjustments, and transfers
- Sales posted after sales update
- Purchase receipts
- Manufacturing completions and issues
- Physical inventory updates

You can limit the date displayed by entering values in any of the header fields. You can toggle between transaction dates (running balance) and general ledger dates for items and set a default display in the processing options.

Because the dates in the item ledger and running balance might differ for an item, the values displayed might also differ.

Reviewing item ledger information includes the following tasks:

- Reviewing cost information
- Reviewing quantity information in running balance format
- Reviewing cost information in running balance format

What You Should Know About

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)

[4111] - Item Ledger

Functions Options Tools Help

Item Ledger

Item Number: 5120
 Branch/Plant: M30
 Location: *
 Lot/SN: *

Dt From/Trans: *
 Dt Thru/Trans: *
 Document Type: *
 G/L Document Type: *
 Oak Desk With Chair
 Memphis Mfg. Plant

Quantity on Hand: 445 EA
 Value: 745,467.43

Document	Ty	Date	Branch/Plant	Quantity	UM	Unit Cost	Ext. Cost
4480	IA	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

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.

Running Balance DtFrom/G/L 07/21/97
DtThru/G/L *

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

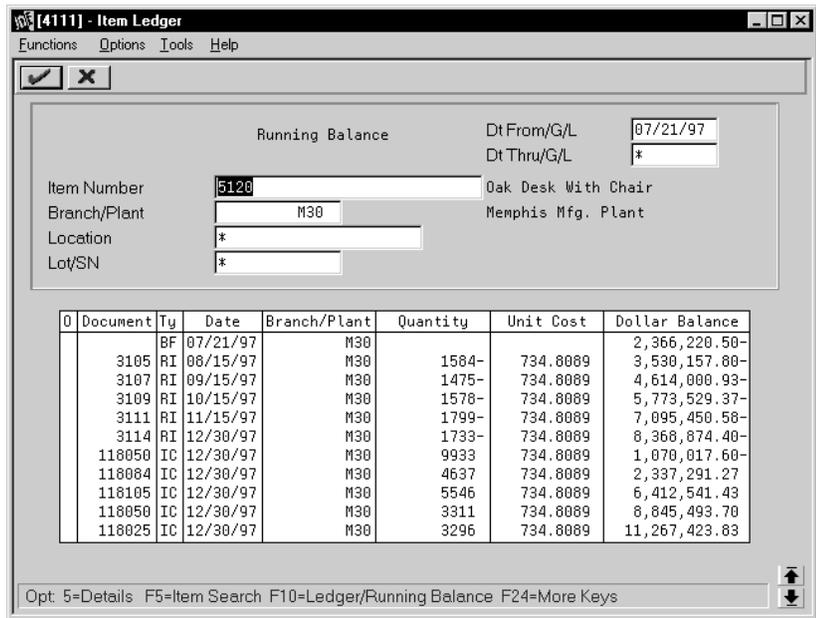
0	Document	Ty	Date	Branch/Plant	Unit Cost	Quantity	Quantity Balance
		BF	07/21/97	M30			6277-
	3105	RI	08/15/97	M30	734.8089	1584-	7861-
	3107	RI	09/15/97	M30	734.8089	1475-	9336-
	3109	RI	10/15/97	M30	734.8089	1578-	10914-
	3111	RI	11/15/97	M30	734.8089	1799-	12713-
	3114	RI	12/30/97	M30	734.8089	1733-	14446-
	118050	IC	12/30/97	M30	734.8089	9933	4513-
	118064	IC	12/30/97	M30	734.8089	4637	124
	118105	IC	12/30/97	M30	734.8089	5546	5670
	118050	IC	12/30/97	M30	734.8089	3311	8981
	118025	IC	12/30/97	M30	734.8089	3296	12277

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

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

On Item Ledger (The CARDEX)

Select the Amount/Quantity format.



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 Work Order Status



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Production Status

Use Production Status to view the status of all work orders by work center, production line, and item, within the status and date ranges. The system shows historical information as well as open orders.

From the Production Status form you can access the Production Transaction History form, where you can view a record for each entry of completions and scrap at an operation.

► **To review production status**

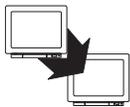
On Production Status

0	Item Number	Order No	Ty	Op	St	Start Date	Req Date	Qty Remaining	UM

1. Complete the following fields:
 - Work Center/Line
 - Item Number
 - Branch/Plant
2. To view the various transactions reported against an order, choose Production History.

Op Seq	Trn Date	S	Order No	Ty	Quantity	UM	Completed	Scrapped
--------	----------	---	----------	----	----------	----	-----------	----------

Reviewing Parts List Comparison



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

From Daily Order Preparation – Discrete (G3111), choose Parts List Comparison

Use Parts List Comparison to view the different items and quantities of two parts lists. You can display all items for the two parts lists or only the differences. In addition, you can limit displayed data to a specified work center or dispatch group.

Before You Begin

- Attach the components to an operation on the routing to view these components

What You Should Know About

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

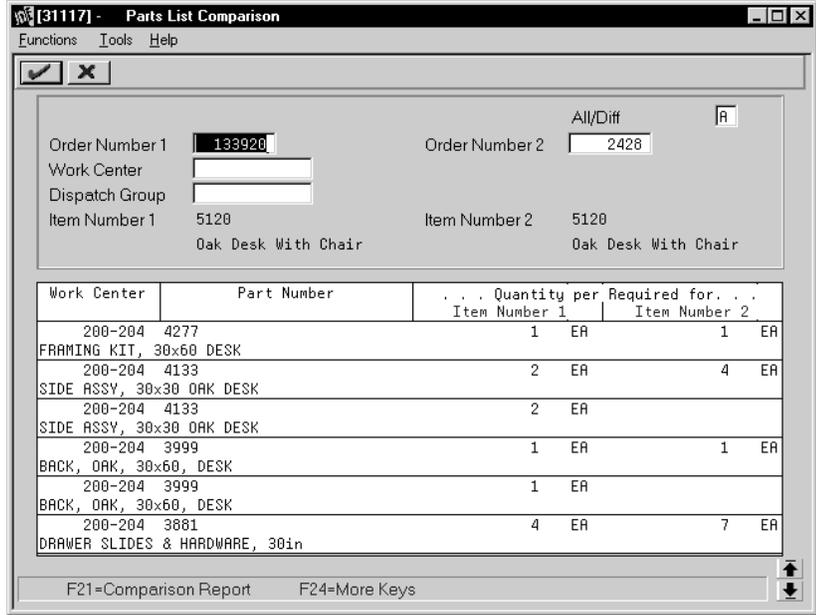
Use the appropriate selection to print the parts list comparison in report form. Use the processing options to specify work orders, the mode to print, and a work center, a dispatch group, or both.

► To review parts list comparison

On Parts List Comparison

Work Center	Part Number	Quantity per Item Number 1	Required for Item Number 2

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



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
Operations reports	Dispatch List
	Hours and Quantities Proof

You can use discrete manufacturing reports to identify all:

- Work orders in your system
- Component parts that are required to complete a work order and its availability
- Item shortages
- Supply, demand, and available quantities for an item

The system uses information in the following tables to produce reports:

Work Order Summary	Work Order Master table (F4801)
All Shortages	Shortage Maintenance Master table (F3118)

What You Should Know About

Kanban implementation You can implement a kanban system to simplify inventory control in a discrete manufacturing environment as well as a repetitive manufacturing environment.

See *Process Kanbans* for instructions on using kanbans.

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 Supply and Demand*

Repetitive Manufacturing



Repetitive Manufacturing

Objectives

- To develop a workbench to schedule production
- To support production capacity and load using units per hour as well as hours per unit
- To define shop floor calendars by shift and production line
- To allow multiple replenishment points for a production line
- To allow electronic kanban control at consuming and supplying locations

About Repetitive Manufacturing

Repetitive manufacturing dedicates entire production lines to a family of products. These product families share similar components and routings. Generally these products are manufactured in a continuous process which requires less inventory movement to and from the production line. Work center setup and changeover times between related products are kept to a minimum.

Repetitive environments define production in terms of units per hour. The time spent at the operational level might or might not be important. Therefore, the ability to set up line capacity and define routings in units per hour is necessary. The fundamental basis for backscheduling and capacity planning is hours. To view information in units, the system uses a conversion factor defined at the work center level.

The driving force for repetitive manufacturing is demand. Scheduling production lines requires tools to schedule, sequence, and balance production based on the capacity for each production line.

While requirements for material is driven by demand, movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories.



Complete the following tasks:

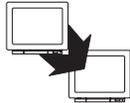
- Enter rates
- Schedule rates
- Complete rates
- Review information
- Process kanbans
- Close rates

See Also

- *Manufacturing and Distribution Planning Guide* for information about Material Requirements Planning
- *Electronic Commerce Guide* for information about Electronic Data Interchange transactions
- *Procurement Guide* for information about purchase orders

Enter Rates

Entering Rates



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Enter/Change Rate Schedule

Repetitive manufacturing is designed for items that you produce in a continuous process on a dedicated production line. A rate schedule is a request to complete a given quantity of an item over a period of time on a specific production line.

Rate schedules consist of a header, parts list, and routing instructions. The rate header specifies the quantity of the item requested, the required date, and the production line. The parts list and routing instructions specify the parts, operations, and resources required to complete the rate.

Use the Enter/Change Rate Schedule program to add a rate schedule. When you add a rate, the system verifies:

- Line against the Line/Item Relationship Master
- Dates against the appropriate shop floor calendar
- Effective date ranges against the defined period

Before You Begin

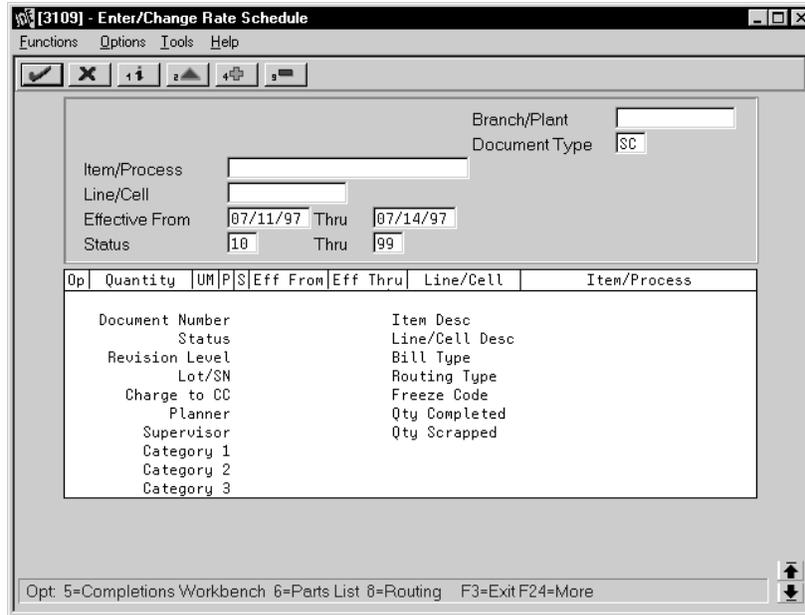
- Set up the processing options to automatically attach the parts list and routing when you enter a rate

▶ To enter rates

On Enter/Change Rate Schedule

Op	Quantity	UR	P	S	Eff From	Eff Thru	Line/Cell	Item/Process
----	----------	----	---	---	----------	----------	-----------	--------------

1. Complete the following fields:
 - Item Number
 - Branch/Plant
 - Rate Quantity
 - Effective From
 - Effective Through
 - Line
2. Complete the following optional fields:
 - Period
 - Shift
3. Access the detail area.



4. Complete the following optional fields and press Enter:

- Status
- Freeze Code
- Category 1
- Category 2
- Category 3
- Bill Type
- Routing Type

Field	Explanation
Line/Cell Identifier	Defines a production line or cell. Detailed work center operations can be defined inside the line or cell.
Units – Order/Transaction Quantity	The quantity of units affected by this transaction.
Month/Week/Day/Shift	A code that determines the frequency of the schedule. Valid codes are: 1 Monthly 2 Weekly 3 Daily 4 Per Shift (for future use)

Field	Explanation
Shift Code	<p>A user defined code (00/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.</p> <p>For payroll and time entry:</p> <p>If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.</p> <p>If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.</p>
Status	<p>A user defined code (00/SS) that describes the status of a work order or engineering change order. Any status change from 90 thru 99 automatically updates the date completed.</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> <ul style="list-style-type: none"> Y Yes, freeze the order N No, do not freeze the order (Default)
Category 1	<p>A user defined code (00/W1) that indicates the current stage or phase of development for a work order. You can assign a work order to only one phase code at a time.</p> <p>NOTE: Certain forms contain a processing option that allows you to enter a default value for this field. If you enter a default value on a form for which you have set this processing option, the system displays the value in the appropriate fields on any work orders that you create. The system also displays the value on the Project Setup form. You can either accept or override the default value.</p>
Category 2	<p>User defined code system 00, type W2, which indicates the type or category of a work order.</p> <p>Note: A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work orders you create on those forms and on the Project Setup form. (You can either accept or override the default value.)</p>
Category 3	<p>User defined code system 00, type W3, which indicates the type or category of a work order.</p> <p>Note: A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work orders you create on those forms and on the Project Setup form. (You can either accept or override the default value.)</p>

Field	Explanation
Bill Type	<p>A user defined code (system 40, type TB), that designates the type of bill of material. You can define different types of bills of material for different uses. For example:</p> <ul style="list-style-type: none"> M (Default) Standard manufacturing bill RWK Rework bill SPR Spare parts bill <p>The system enters bill type M in the work order header when you create a work order, unless you specify another bill type. The system reads the bill type code on the work order header to know which bill of material to use to create the work order parts list. MRP uses the bill type code to identify the bill of material to use when it attaches MRP messages. Batch bills of material must be type M for shop floor control, product costing, and MRP processing.</p>
Routing Type	<p>User defined code (system 40, type TR) that designates the type of routing. You can define different types of routing instructions for different uses.</p> <p>For example:</p> <ul style="list-style-type: none"> M Standard Manufacturing Routing RWK Rework Routing RSH Rush Routing <p>You define the routing type on the work order header. The specific type of routing defined will then be used in the work order routing.</p> <p>Product Costing and Capacity Planning systems use only M type routings.</p>

What You Should Know About

Production lines

To increase plant capacity, manufacturers run production lines for more than one shift, as well as run different lines of production on different days of the week. You specify these shifts and lines on the shop floor calendar.

You can identify up to six shifts for the production line using Manufacturing Constants, then identify all shifts for the production line by work center. After you set up the shift and line calendars, the Line Scheduling Workbench and Line Sequencing Workbench use these calendars to schedule production accordingly.

See *Setting Up the Shop Floor Calendar*.

Line/item relationship Before you enter a rate, you can create a relationship between a line and an item.

See *Setting Up Line and Item Relationships*.

See Also

- *Creating Work Orders* for information about attaching the parts list and routing instructions interactively

Processing Options for Enter/Change Rate Schedule

DEFAULT PROCESSING:

1. Enter defaults for the following:
 - a. Rate Type (Default is 'AC') _____
 - b. Beginning Status (Optional) _____
 - c. Period (Optional) _____

SCREEN FILTERS:

2. Enter a '1' to only display open schedules. _____
3. Enter the status code beyond which the rate is considered closed. (Default is '99') _____

CATEGORY CODES:

4. Enter defaults for the following:
 - a. Category Code 1 (Optional) _____
 - b. Category Code 2 (Optional) _____
 - c. Category Code 3 (Optional) _____OR enter Item Branch Class Code (F4102) fields to retrieve default values:
 - d. Category Code 1 (Optional) _____
 - e. Category Code 2 (Optional) _____
 - f. Category Code 3 (Optional) _____

DREAM WRITER VERSIONS:

- Enter the DREAM Writer version to use for each program listed. If left blank, version 'ZJDE0001' will be used.
5. Routing Revisions (P3003) _____
 6. Rate Schedule Workbench (P3119) _____
 7. MPS/MRP/DRP Time Series (P3413) _____
 8. Bill Availability (P30205) _____
 9. ECO Revisions (P48020) _____
 10. Assign Serial Numbers (P3105) _____
 11. Lot Master Revisions (P4108) _____
 12. Bill of Materials Revisions (P3002) _____

PARTS LIST/ROUTING CREATION:

13. Enter the method to attach a Parts List and Routing: _____
 - 1 - Interactively
 - 2 - Submit to BatchNOTE: If left blank, Parts List and Routing will not be attached.

14. Enter the DREAM Writer version for P31410. If left blank, version ZJDE0001 will be used. _____

BACK SCHEDULING INFORMATION:

15. Enter the Unit of Measure to use for scheduling. _____

BILL/ROUTING RECALCULATION:

16. Enter the DREAM Writer version to use for P31410, if this program should update Parts List and Routing when dates or quantities are changed in the Rate header. If left blank, no recalculation will be performed. _____

COMMITMENT AND SUBSTITUTION:

17. Commitment option for creating the Parts List manually. _____

- 1 - Commit per Commitment Control in Manufacturing Constants.
- 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.
- 9 - Do not commit.

NOTE: If left blank, commitment will be made to replenishing location in routing.

PRIOR REVISIONS:

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

ITEM LOCATION VALIDATION:

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

PURCHASE ORDER HOLD CODE:

20. Enter the Hold Code for the related purchase order if the work order quantity or date changes. If left blank, purchase order will not be updated. _____

NOTE: The purchase order will be updated only if the rate header is updated manually.

WAREHOUSE MANAGEMENT:

21. Request processing mode for attached parts list. _____

- 1 - Generate requests only.
- 2 - Generate requests and process using the subsystem.

NOTE: If left blank, no pick requests will be created.

22. If processing pick requests using the subsystem, enter the version to use. If left blank, XJDE0002 _____

will be used. (see Form ID P46171)

23. 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)

24. 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.

GENERIC TEXT COPY OPTIONS:

25. Enter a '1' to copy component's generic text to the Parts List.

26. Enter a '1' to copy the operation's generic text to the Routing.

OBSOLETE ITEMS:

27. Enter the Cross Reference code for retrieving item replacements for obsolete items.

CHARGE TO COST CENTER:

28. Enter a '1' to default the branch/plant. If left blank, the production line will be used.

Schedule Rates

Scheduling Rates

The driving force for repetitive manufacturing is demand. Scheduling production line requires tools to schedule, sequence, and balance production based on the capacity for each production line. Scheduling rates includes the following tasks:

- Scheduling items on a production line
- Sequencing rates by classification scheme or manually
- Reviewing production across lines

What You Should Know About

Quality Management test results When you manage rate based information and complete quantities to inventory, you can access Test Results Entry for items that require testing.

See *Working with Test Results* in the *Quality Management Guide* for more information.

Scheduling Items on a Production Line



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Line Scheduling Workbench

Use the Line Scheduling Workbench to schedule rates and work orders for the family of items produced on a production line. This workbench shows information about both firmed and planned rates and work orders, in daily buckets. After you manually manipulate the scheduled quantities, you can firm the schedule using a function key. Use start and through dates to show the work days for the production line within the date range. When you create a rate or work order, or the system creates a rate through planning, the system spreads the quantities evenly over the work days within the specified date range. From the workbench you can access:

- Alternate Line Selection
- Split Lines
- Production Status
- Item Availability
- Rate Master Schedule

Use Split lines to move scheduled quantities from one line to another by:

- Splitting production among two lines, which may create a rate on the new line
- Consolidating production from two lines to one line
- Transferring production from one line to another

Use Alternate Line Selection to view all lines for which line/item relationships exist for the item.

► **To schedule items on a production line**

On Line Scheduling Workbench

0	Item	Shft	06/15/98	06/16/98	06/17/98	06/18/98	06/19/98
	2031	1	32	32	32	32	32
	2032	1	80	80	80	80	80
	2033	2	66	66	66	66	66

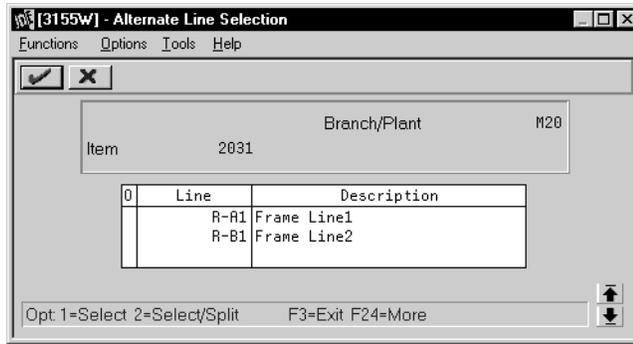
Capacity	128	128	128	128	128
Percent Used	139	139	139	139	139
Available.					
Cumulative Available	39-	78-	117-	156-	195-

Opt 1=Split 2=Alt F5=Update F10=Refresh F11=Cap Toggle F24=More

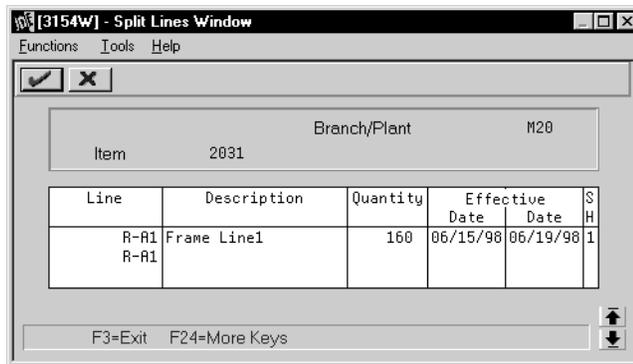
1. Complete the following fields:
 - Line
 - Branch/Plant
2. Complete the following optional fields:
 - Start Date
 - Through Date
3. Change any scheduled quantity as needed.

If you change the total quantity and update the schedule, the system shows a soft error and then spreads the new quantity evenly across the date range. You must update the schedule using a function key before the system changes the record.

4. Enter a 2 next to the appropriate item.



5. On Alternate Line Selection, review the following fields:
 - Item
 - Revision
6. Enter a 2 in the following field next to the appropriate line:
 - Option



7. On Split Lines, complete the following fields to move scheduled quantities from one line to another:
 - Line
 - Quantity
 - Shift

Processing Options for Line Scheduling Workbench

SCREEN DEFAULTS:

1. Enter defaults for the following:
 - a. Status for FIRM Rates and Work Orders _____
 - b. Document Type _____
 - c. Shift _____

PLANNED ORDERS:

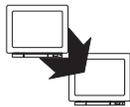
2. Enter a '1' to display PLANNED Rates and Work Orders. _____

DREAM WRITER VERSIONS:

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

3. Production Status (P31226)	_____
4. Line Sequencing Workbench (P3156)	_____
5. Split Lines Window (P3156W)	_____
6. Part Availability (P30205)	_____
7. Rate Header Maintenance (P3109)	_____
8. Supply/Demand Inquiry (P4021)	_____
9. Message File Revisions (P3411)	_____
10. Line Balancing Review (P3152)	_____

Sequencing Rates by Classification Scheme or Manually



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Line Sequencing Workbench

Use the Line Sequencing Workbench to sequence the rates after you schedule production. This workbench only shows information about actual rates, in daily buckets. Set the processing options if you want the system to sequence quantities across shifts, or across both shifts and days. You must update the schedule using a function key before the system changes the record. You can sequence the rates, using function keys, by:

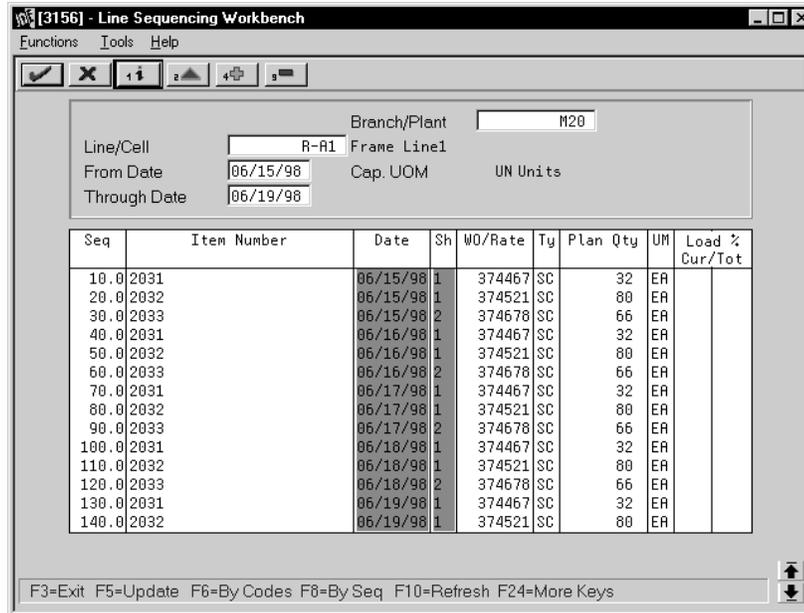
- Category code
- Sequence number

To sequence the rates by the items' category codes, you use a function key. (The category code values are determined by the setup in the processing options for the Enter/Change Rate Schedule.) Beginning with the first shift and day, you forward schedule the quantities, which consumes the available capacity. You use the processing options to control whether these quantities are pulled forward or pushed back in time across shifts only, or both shifts and days. This process places the scheduled quantities which exceed the capacity available, within the date range selected, in the last shift of the last day.

To sequence the rates by sequence number, you use a different function key. Again, beginning with the first shift and day, you forward schedule the quantities, which consumes the available capacity. When created, a new rate has an initial sequence number of all nines. This causes it to be sequenced last for the shift, therefore placing it after any previously sequenced rates. This default sequence may then be overridden manually, if desired. You do this by changing the sequence number value. After manipulating the sequence, you can update the schedule as is, or use the function key to forward schedule again.

► **To schedule rates by classification scheme**

On Line Sequencing Workbench



1. Complete the following fields:
 - Line/Cell
 - Branch/Plant
2. Complete the following optional fields and press Enter:
 - From Date
 - Through Date
3. To change the sequence of the rate, complete the following fields as needed:
 - Sequence
 - Shift

Processing Options for Line Sequencing Workbench

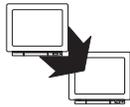
PROCESSING DEFAULTS:

1. Enter a '1' to allow scheduling across shifts. _____
2. Enter a '1' to allow scheduling across days. If left blank and scheduling across shifts is allowed, remaining hours for a day will be applied to the last shift for the day. _____
 NOTE: If option 1 is left blank, option 2 is set to blank in the program.

DATE RANGE SELECTION:

3. Enter a '1' to default the From Date to the current date when the From Date is left blank. _____
4. Enter the number of days to add to the From Date when defaulting the Thru Date. If left blank, the From Date value is used as the default value for the Thru Date. _____

Reviewing Production Across Lines



From Shop Floor Control (G31), choose Repetitive Daily Processing

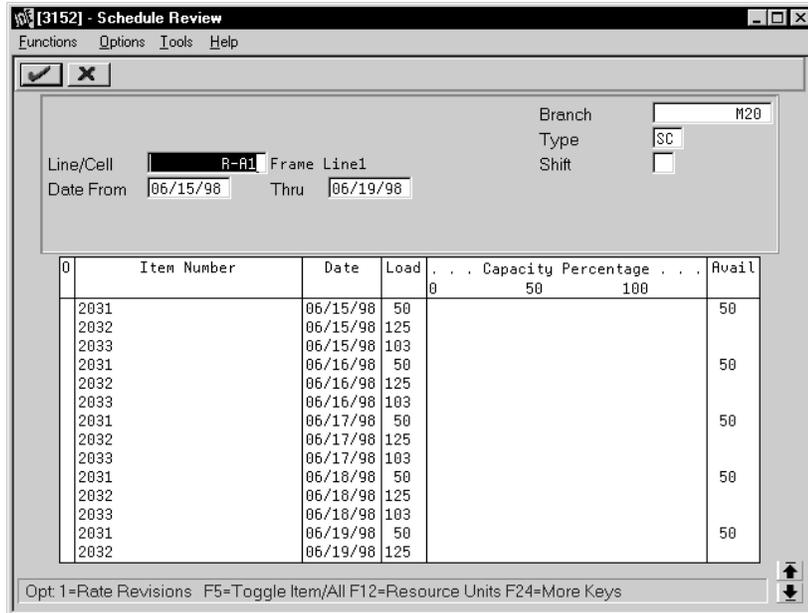
From Daily Processing – Repetitive (G3115), choose Schedule Review

Use Schedule Review to view the schedule of the production lines for the family of items produced. If items are produced on multiple production lines, use this workbench to view production across lines while staying within each line's capacity. You can toggle the information shown between an item and all items:

- Item mode — the load column represents the capacity consumed by rates for that item.
- All items mode — the load column represents the capacity consumed by the mix of items' rates in effect.

To review production across lines

On Schedule Review



1. Complete the following fields:
 - Line/Cell
 - Branch
2. Complete the following optional fields and press Enter:
 - Date From
 - Date Through
3. Review the information.

Processing Options for Schedule Review

SCREEN DEFAULTS:

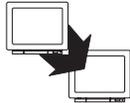
1. Enter defaults for the following:
 - a. Document Type (Default is 'AC')
 - b. Shift

DREAM WRITER VERSIONS:

2. Enter the version of Rate Revisions (P3109) to call. If left blank, version 'ZJDE0001' will be used.

Complete Rates

Completing Rates



From Shop Floor Control (G31), choose Process Daily Processing

From Daily Processing – Process (G3115), choose Completions Workbench

Use Completions Workbench to record rate or work order completions, issue parts, and record hours and quantities for the rate or work order. Depending on how you set the processing options, the Inventory Issues and Hours and Quantities forms appear as you complete rates or work orders.

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

Before You Begin

- Set the processing options to access the Issues and Hours and Quantities programs

What You Should Know About

Quality Management test results When you manage rate based information and complete quantities to inventory, you can access Test Results Entry for items that require testing.

See *Working with Test Results* in the *Quality Management Guide* for more information.

► To complete rates

On Completions Workbench

Op	Item Number	Quantity	UM	Quantities Completed	Quantities Scrapped	UM	Date Complete
	2032	400	EA				07/21/97
	2032	1	EA				07/21/97

1. Complete the following fields:

- Branch/Plant
- Document Type
- Item Number
- Quantities Completed
- Quantities Scrapped
- Date Complete
- Shift

2. Access the detail area.

[3119] - Completions Workbench

Functions Options Tools Help

Branch/Plant M20
 Document Type SC
 Item Number 2032 Steel Frame, Mountain
 Production Line
 Effective From 06/15/98 Thru 06/19/98
 Status From Thru

Op	Item Number	Quantity	UM	Quantities		UM	Date Complete	S
				Completed	Scrapped			
	2032	400	EA				07/21/97	
Steel Frame, Mountain								
Line/Cell R-A1 Frame Line1								
Eff From 06/15/98 Thru 06/19/98								
Document 374521 SC								
Total Completed								
Total Scrapped								
	2032	1	EA				07/21/97	
Steel Frame, Mountain								
Line/Cell R-B1 Frame Line2								
Eff From 06/15/98 Thru 06/19/98								
Document 374686 SC								
Total Completed								
Total Scrapped								

Opt 1=WQ/Rates 2=Hrs/Qty 3=Issues 4=Completion F24=More Keys

3. Complete the following field:

- Employee Number

4. Complete the following optional fields and press Enter:

- Location
- Lot/Serial Number
- Employee
- Status

[31123] - W.O. Super Backflush

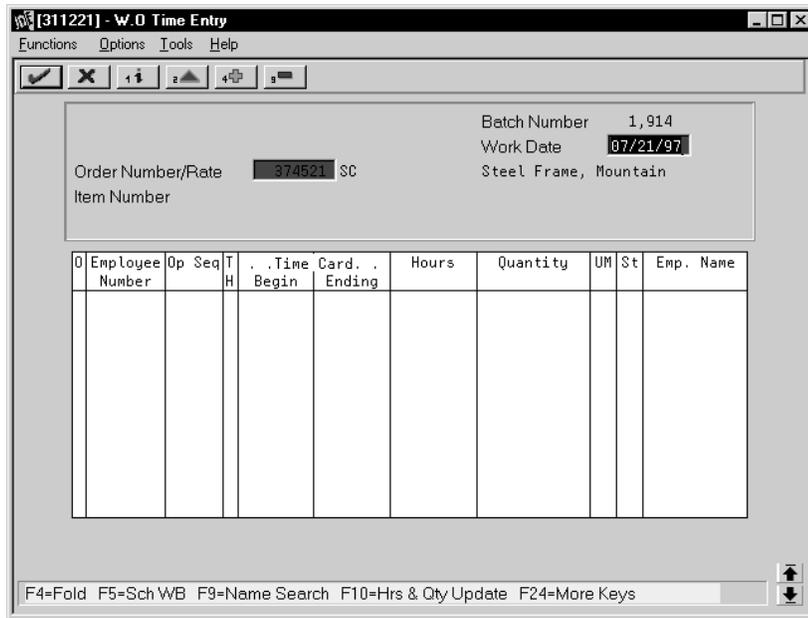
Functions Options Tools Help

Branch/Plant M20
 Requested 06/19/98
 Qty Ordered 400 EA
 Order Number 374521 SC 2032 Steel Frame, Mountain
 Qty Complete
 Transaction Date 07/21/97 Shift Qty Scrapped

0	Work Center	Op Seq	Description	Employee	Qty Comp	Qty Scrap	UM	St
	R-112	10.00	Cut to length fram				EA	
	R-121	20.00	Mill ends frame				EA	
	R-122	30.00	Drill mounting hol				EA	
	R-112	40.00	Cut to length rear				EA	
	R-121	50.00	Mill ends rear ass				EA	
	R-134	60.00	Form rear assembly				EA	
	R-101	70.00	Weld frame				EA	
	R-103	80.00	Inspect welds				EA	

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

5. On Super Backflush, press Enter.
6. On Inventory Issues, press Enter.



7. On Hours & Quantities Entry, complete the following fields and press Enter:
 - Employee
 - Completed
 - Scrapped
 - Unit of Measure
8. Revise the following fields as needed:
 - Actual Setup
 - Actual Labor
 - Actual Machine

Processing Options for Completions Workbench

SCREEN DEFAULTS:

1. Enter defaults for the following:
 - a. Schedule Type (Default is 'AC')
 - b. Employee Number
 - c. Production Line
 - d. Effective From
 - e. Effective Thru
 - f. Status From
 - g. Status Thru

DREAM WRITER VERSIONS:

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

- 2. Super Backflush (P31123) _____
- 3. Hours and Quantities (P311221) _____
- 4. Material Issues (P31113) _____
- 5. Rate Revisions (P3109) _____
- 6. Item Ledger Inquiry (P4111) _____
- 7. Line Balancing Review (P3152) _____
- 8. Schedule History Inquiry (P31226) _____
- 9. Completions (P31114) _____
- 10. Lot Master Revisions (P4108) _____
- 11. Hours and Quantities Update (P31422) _____

HOURS & QUANTITIES:

- 12. Enter a '1' to automatically process hours & quantities using the dream writer version for P31422. If left blank, P31422 should be submitted manually. _____

CLOSING RATES:

- 13. Enter the status code to use when closing rates. (Default is '99') _____

LOT NUMBER:

- 14. Enter '1' to protect the lot number from input. _____

QUALITY MANAGMENT:

- 15. Enter the version of Test Results Revisions (P3711) to call. If left blank, version 'ZJDE0002' will be used. _____

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:

Shop Floor Control Discrete Manufacturing

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:
18. Enter the version of Test Results Revisions (P3711) to call. If left _____

blank, version ZJDE0002 will be used.

Processing Options for Hours and Quantities Entry

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 Quantity At Operation.

5. Enter a '1' to prevent employee rate from being written to screen.

QUALITY MANAGEMENT:

6. Enter the version of Test Results Revisions (P3711) to call. If left blank, version ZJDE0002 will be used.

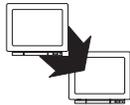
Review Information

Reviewing Information

You can review the status of rates and work orders, records for entries of completion and scrap at an operation, and planned and remaining quantities for all items scheduled through a particular production line. Reviewing information consists of the following:

- Review production status
- Review production history
- Review line dispatch list

Reviewing Production Status



From Shop Floor Control (G31), choose Repetitive Daily Processing

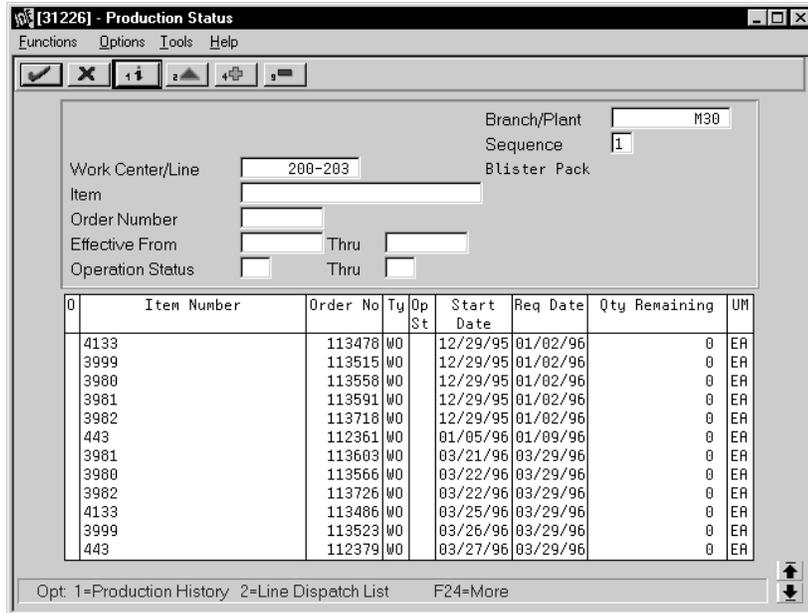
From Daily Processing – Repetitive (G3115), choose Production Status

Use Production Status to view the status of all rates and work orders by work center/line, work order, rate schedule number, or item number as qualified by the status and date ranges. The program shows historical information as well as open rates and work orders.

From Production Status you can access Production History, where you can view the transactions for each entry of completions and scrap at an operation. The history program shows all transactions that made up the scrapped quantities and the details of these past transactions.

To review production status

On Production Status



1. Complete one or a combination of any two, of the following fields:
 - Work Center/Line
 - Item
 - Order Number
2. Complete the following field and press Enter:
 - Branch/Plant
3. Review the information.

Processing Options for Production Status

SCREEN DEFAULTS:

1. Enter defaults for the following:
 - a. From Status _____
 - b. Thru Status _____
 - c. The number of days prior to today's date for the From Date. _____
 - d. The number of days after today's date for the Thru Date. _____

Reviewing Production History



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Production History

▶ To review production history

On Production History

Op Seq	Trn Date	S	Order No	Ty	Quantity	UM	Completed	Scrapped
10.00	11/25/94		113478	W0	8648	EA	8648	

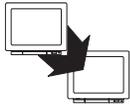
1. Complete one or a combination of any two, of the following fields:
 - Work Center/Line
 - Item Number
 - Order Number
2. Complete the following field and press Enter:
 - Branch/Plant
3. Review the information.

Processing Options for Production History

SCREEN DEFAULTS:

1. Enter defaults for the following:
 - a. Operation Sequence _____
 - b. Shift _____
 - c. The number of days prior to today's date for the From Date. _____
 - d. The number of days after today's date for the Thru Date. _____

Reviewing Line Dispatch List



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Line Dispatch List

Use Line Dispatch List to view the planned and remaining quantities for all items scheduled through a particular production line.

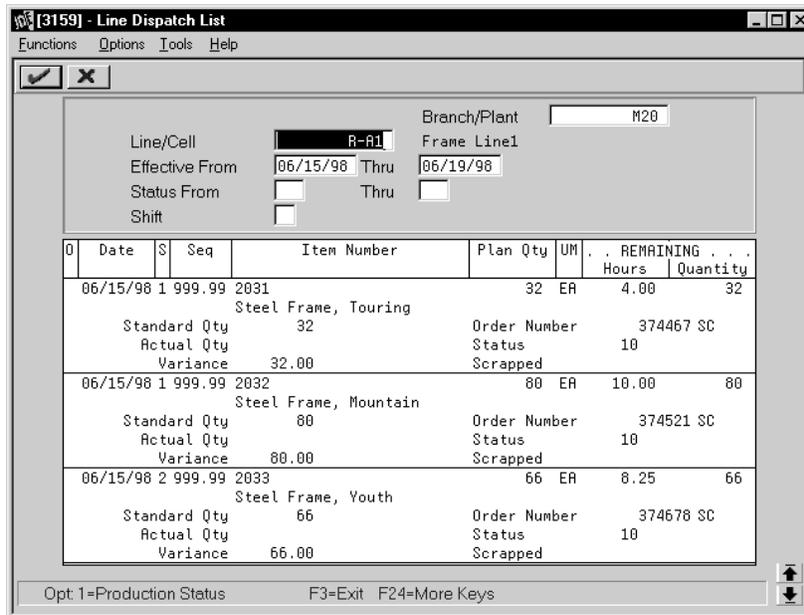
► **To review line dispatch list**

On Line Dispatch List

0	Date	S	Seq	Item Number	Plan Qty	UM	Hours	Quantity
	06/15/98	1	999.99	2031	32	EA	4.00	32
	06/15/98	1	999.99	2032	80	EA	10.00	80
	06/15/98	2	999.99	2033	66	EA	8.25	66
	06/16/98	1	999.99	2031	32	EA	4.00	32
	06/16/98	1	999.99	2032	80	EA	10.00	80
	06/16/98	2	999.99	2033	66	EA	8.25	66
	06/17/98	1	999.99	2031	32	EA	4.00	32
	06/17/98	1	999.99	2032	80	EA	10.00	80
	06/17/98	2	999.99	2033	66	EA	8.25	66
	06/18/98	1	999.99	2031	32	EA	4.00	32
	06/18/98	1	999.99	2032	80	EA	10.00	80
	06/18/98	2	999.99	2033	66	EA	8.25	66
	06/19/98	1	999.99	2031	32	EA	4.00	32
	06/19/98	1	999.99	2032	80	EA	10.00	80
	06/19/98	2	999.99	2033	66	EA	8.25	66

1. Complete the following fields and press Enter:
 - Line/Cell
 - Branch/Plant

2. Review the information.
3. Access the detail area.



4. Review the information.

Processing Options for Line Dispatch List

SCREEN DEFAULTS:

1. Enter defaults for the following:
 - a. The number of days prior to today's date for the From Date.
 - b. The number of days after today's date for the Thru Date.
 - c. Shift
 - d. From Status
 - e. Thru Status

Process Kanbans

Processing Kanbans

While the requirements for material is driven by demand, the movement is controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories. Two programs manage the electronically implemented kanbans. Processing kanbans includes the following tasks:

- Processing kanban consumption by item
- Processing kanban supply by item

Use the consumption program to access kanbans at a consuming location, and the supply program to access kanbans at a supplying location, by specifying one or any two of the following criteria:

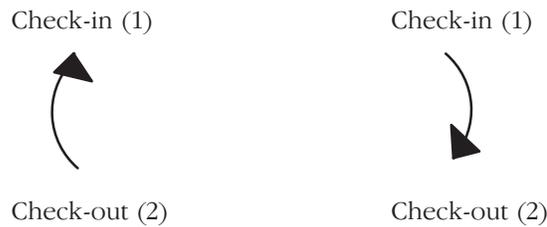
- Item
- Location
- Supplier
- Kanban identification

You process kanbans in one of two modes:

- One-Phase
- Two-Phase

One-Phase

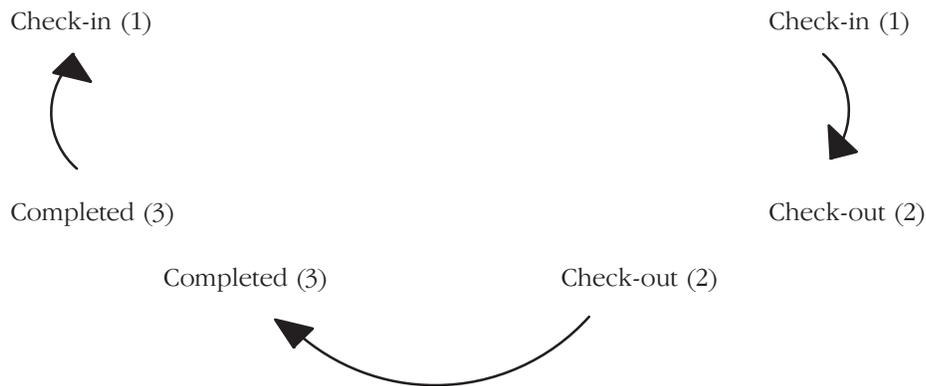
One-phase assumes the completion and transfer to the consuming location are performed in one step, in which you complete the quantity directly to the consuming location and change the kanban status to checked-in (1).



Two-Phase

Two-phase assumes the completion and transfer are reported separately. You complete the quantity to the supplying location and change the kanban status to completed (3). After the quantity has physically been received at the consuming location, a transfer from the supplying location to the consuming location occurs and the kanban status is changed to checked-in (1).

If you check in a kanban quantity from the supplier, the system can initiate a receipt transaction if the kanban master flag is on.



You can process kanbans for items that are:

- Inventoried
- Manufactured (sub-assemblies/phantoms)
- Externally supplied

Inventoried Items Processing

When you check out a kanban that is inventoried, the kanban status is changed. The supplying location replenishes the kanban quantity. You then complete and check in the kanban, which results in an inventory transfer transaction.

Manufactured Processing

When you check out a kanban that is manufactured, the program either creates a work order, or looks for an existing rate. It bases its action on the items' order policy code. (If the system does not find a rate, it creates one.) When the system creates a rate, it automatically attaches the parts list and routing. When you check in the kanban, you complete the work order or rate, issue parts, enter hours and quantities, and transfer the parent item to the consuming location.

Manufactured Processing – Phantom Item

When you check out a kanban supplied by a work center/production line, and the item is a phantom, no transactions outside of inventory transfers occur. There are no work orders or rates to process; the item is simply replenished by the producing line and the kanban is completed and checked in. This results in an inventory transfer transaction, from the supplying location to the consuming location.

Externally Supplied Processing

When you check out kanbans from an external supplier, the system may create a new purchase order, or use an existing one. However, there must be an open purchase order for the item. In addition, when you check out the kanban, the system may also initiate an Electronic Data Interchange (EDI) transaction. When you check in kanbans from an external supplier, the system may optionally perform a receipt against the purchase order.

Processing Kanban Consumption by Item



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Kanban Consumption

Kanban Consumption allows you to access all kanbans at a given consuming location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a consuming location:

- Checked-in (1)
- Checked-out (2)

▶ To process kanban consumption by item

On Kanban Consumption

Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
2047	745	1	EA	2	30
2047	746	1	EA	2	30

1. Complete the following fields:
 - Item Number
 - Branch/Plant
2. Complete the following fields to check-in a kanban that was supplied by the production line and a rate or work order was created:
 - Employee Number
 - Shift

3. Access the detail area.

Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
2047	745	1	EA	2	30
2047	746	1	EA	2	30

4. To check in the item, enter a 1 in the following field next to the item number:
 - Option
5. To check out the item, enter a 2 in the following field next to the item number:
 - Option

Processing Options for Kanban Consumption

RATE BASED INFORMATION:

1. Enter the version of rate schedule revision (P3109) to be used (Default is ZJDE0001)

WORK ORDER INFORMATION:

2. Document type (Default is 'WO')
3. Beginning Status
4. Enter a '1' to attach part list and routing
5. Enter the version of for J31410 (Default is ZJDE0001)
6. Close Status for rate or work order

PURCHASE ORDER INFORMATION:

7. Enter the document type for purchase order (Default is 'OP')
8. Enter a '1' to trigger EDI862 transaction
9. Enter the version of Purchase Orders Print (P43500) to be called to generate EDI 862 transaction (Default is XJDE0008)

Shop Floor Control Discrete Manufacturing

10. Enter the version of open purchase orders (P430301) to be called. (Default is ZJDE0007) _____
11. Enter the default route type to be used to search for a receipt route. _____
12. Enter the value of the default route to be used for items without a receipt route setup. _____
13. Enter the version of Receipt by PO/Item/Account to call. If left blank, will default to 'ZJDE0008'. _____
14. Enter a '1' to create purchase order _____
15. Enter the beginning line status _____
- SHOP FLOOR ACTIVITY INFORMATION:
16. Enter the version of the Hours and Quantity Program to call. If left blank, a blind Hours and Quantity execution will be performed _____
- BLIND HOURS AND QUANTITIES ENTRY:
17. Enter the Document Type associated with Shop Floor Activity. (Default is 'IH') _____
- WORK ORDER ISSUES INFORMATION:
18. 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:
19. Enter the Document Type associated with a Work Order Issue. _____
- WORK ORDER COMPLETION INFORMATION:
20. 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:
21. Enter the Document Type associated with an Inventory Completion. _____
22. Enter the Document Type associated with an Inventory Scrap. _____
- STATUS CODES DEFAULTS:
23. Enter the default Operation Status Code for Partial Completions. _____
24. Enter the default Operation Status Code for Full Completions. _____

25. Enter the Status Code for update to the Work Order Header. _____
26. Enter the default Material Status Code for Issues. _____
- INVENTORY TRANSFER:
27. Enter the Version of the Inventory Transfer Program to call. _____
If left blank, a blind Inventory Transfer execution will be performed.
- BLIND INVENTORY TRANSFER:
28. Enter the Document Type associated with an Inventory Transfer. _____
- DEFAULT VALUES:
29. Enter the default value for Item Number. _____
30. Enter the default value for location. _____
- WAREHOUSE PROCESSING:
31. Enter the Directed Putaway mode. _____
' ' : No Directed Putaway requests
'1' : Request Putaway only.
'2' : Request Putaway and process using the subsystem.
32. If processing putaway requests through the subsystem, enter the DREAM Writer version to be used. _____
If blank, ZJDE0001 is used.
(See Form ID P46171)
- Transaction Confirmation
33. Enter '1' to be prompted to confirm transaction _____

Processing Kanban Supply by Item



From Shop Floor Control (G31), choose Repetitive Daily Processing

From Daily Processing – Repetitive (G3115), choose Kanban Supply

Kanban Supply allows you to access all kanbans that need replenishment for items stored or produced at a given supplying location. After you locate your items, depending on the status of each item, you can make one of the following status changes at a supplying location:

- Checked-in (1)
- Completed (3)

Inventory and statuses are affected as follows:

- One-phase — inventory is immediately received and available at the consuming location, and the status is changed to checked-in (1).
- Two-phase — the completion and transfer are reported separately:
 - The quantity is completed to the supplying location, the kanban status is changed to a complete (3).
 - After the quantity has physically been received at the consuming location, a transfer is performed from the supply location to the consuming location and the kanban status is changed to checked-in (1).

► To process kanban supply by item

On Kanban Supply

0	Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
	2037	725	1	EA	2	30
	2037	726	1	EA	2	30

1. Complete the following fields:
 - Item Number
 - Branch/Plant
2. Complete the following fields to check in a kanban that was supplied by the production line and a rate or work order was created:
 - Employee Number
 - Shift
3. Access the detail area.

Branch/Plant M20
 Employee Number
 Shift
 Item Number 2037
 Location
 Supplier
 Kanban ID

0	Item Number	Kanban ID	Card Nbr	UM	St	Kanban Quantity
	2037	725	1	EA	2	30
	Consuming Location LA.10				Source Type	1
	Supply Location LC.50				Order Number	
	Kanban Size	30			Supplier	
	Container Size	30				
	2037	726	1	EA	2	30
	Consuming Location LA.10				Source Type	1
	Supply Location LC.50				Order Number	
	Kanban Size	30			Supplier	
	Container Size	30				

Opt 1=Check In 3=Complete F24=More Keys

4. To check in the item, enter a 1 in the following field next to the item number:
 - Option
5. To complete the item, enter a 3 in the following field next to the item number:
 - Option

Processing Options for Kanban Supply

RATE BASED INFORMATION:

1. Enter the version of rate schedule revision (P3109) to be used
(Default is ZJDE0001)

WORK ORDER INFORMATION:

2. Enter the document type for work orders (Default is 'WO')
3. Close Status for rate or work order

PURCHASE ORDER INFORMATION:

4. Enter the document type for purchase order (Default is 'OP')
5. Enter the default route type to be used to search for a receipt route.
6. Enter the value of the default route to be used for items without a receipt route setup.
7. Enter the version of Receipt by PO/Item/Account to call. If left blank, will default to 'ZJDE0008'.

SHOP FLOOR ACTIVITY INFORMATION:

8. Enter the version of the Hours and Quantity Program to call
If left blank, a blind Hours and Quantity execution will be performed
-

BLIND HOURS AND QUANTITIES ENTRY:

9. Enter the Document Type associated with Shop Floor Activity.
(Default is 'IH')
-

WORK ORDER ISSUES INFORMATION:

10. 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:

11. Enter the Document Type associated with a Work Order Issue.
-

WORK ORDER COMPLETION INFORMATION:

12. 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:

13. Enter the Document Type associated with an Inventory Completion.
-
14. Enter the Document Type associated with an Inventory Scrap.
-

STATUS CODES DEFAULTS:

15. Enter the default Operation Status Code for Partial Completions.
-
16. Enter the default Operation Status Code for Full Completions.
-
17. Enter the Status Code for update to the Work Order Header.
-
18. Enter the default Material Status Code for Issues.
-

INVENTORY TRANSFER:

19. Enter the Version of the Inventory Transfer Program to call.
If left blank, a blind Inventory Transfer execution will be performed.
-

BLIND INVENTORY TRANSFER:

20. Enter the Document Type associated with an Inventory Transfer.
-

DEFAULT VALUES:

21. Enter the default value for Item Number.
-

22. Enter the default value for location. _____

WAREHOUSE PROCESSING:

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

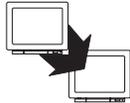
24. If processing putaway requests through the subsystem, enter the DREAM Writer version to be used. If blank, ZJDE0001 is used. (See Form ID P46171) _____

Transaction Confirmation

25. Enter '1' to be prompted to confirm transaction _____

Close Rates

Closing Rates



From Shop Floor Control (G31), enter 27

From Advanced Shop Floor Control (G3131), choose Close Rates

Use the Close Rates program to close rate schedules if the:

- Status is greater than or equal to the value specified in the processing options
- Effective through date is less than or equal to the date specified in the processing options

When you close rates, the system:

- Purges the rate schedule data from the Quantity Detail table
- De-commits any quantities for the applicable rates

See Also

- *Purge Work Orders* for information about purging data

Processing Options for Batch Rate Close

PROCESSING DATE:

1. Enter the date to compare to the Rate Effective Through date. All rates for which the Through Date is less than this date will be closed. If left blank, no rates will be closed.

WORK ORDER STATUS:

2. Enter the status for closed rates. If left blank, '99' will be used.

DREAM WRITER VERSIONS:

3. Enter the version of Rate Schedule Revisions (P3109) to call to determine whether or not rates are to be decommitted. If left blank, version ' ZJDE0001' will be used.

What You Should Know About Processing Options

Work Order Status (2) When you set the status to 3, the system no longer allows you to process Manufacturing Accounting for that rate.

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

Shop Floor Control requires some setup prior to using the system. Setup for Shop Floor Control includes codes needed for work orders, such as priority, status, and category codes. As well as, information needed for discrete and repetitive manufacturing, such as employee labor rates, shop floor calendar, and work centers.

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

- Set up work order codes
- Set up manufacturing information

Before You Begin

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

See Also

- *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

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
- Set up operation status codes
- Set up document type codes

See Also

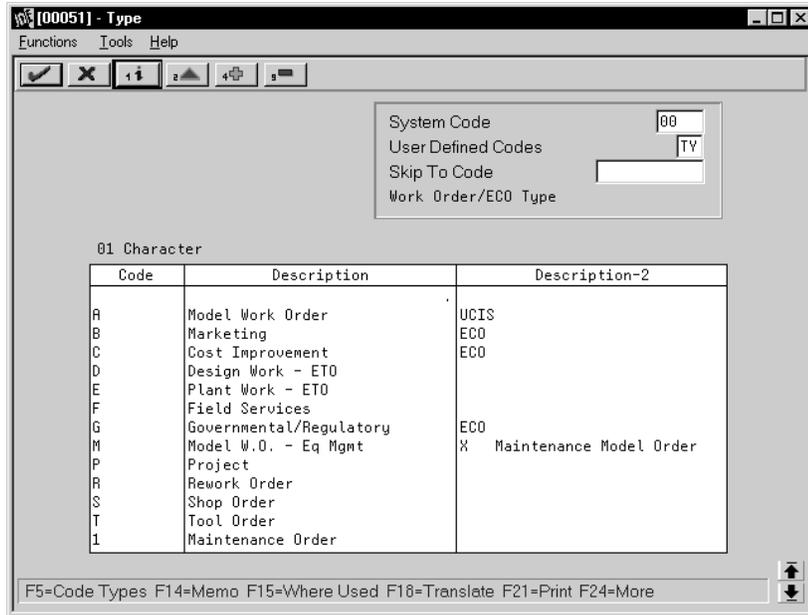
- *Creating Work Orders (P48013)*

To set up type codes

From the Shop Floor Control Setup menu (G3141), choose Type.

Work order type codes (00/TY) indicate the type classification of a work order. For example, a rework order might be type R and a design order might be type D.

On Type



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 that contains user defined codes. The table is also referred to as a code type.
Code	This column contains a list of valid codes for a specific user defined code list. The number of characters that a code can contain appears in the column title.
Description	A user defined name or remark.
Description-2	Additional text that further describes or clarifies a field in J.D. Edwards systems.

► **To set up priority codes**

From the Shop Floor Control Setup menu (G3141), choose Priority.

Work order priority codes (00/PR) indicate the priority of a work order in relation to other work orders. These codes are for reference only and do not affect the scheduling or planning of work. They should not be used as your formal work priority system.

On Priority

System Code: 00
 User Defined Codes: PR
 Skip To Code:
 Work Order Priority:

See Memo
 01 Character

Code	Description
H	High
L	Low
M	Med
1	Emergency
2	Urgent
3	Normal - ASAP
4	Low Priority

F5=Code Types F14=Memo F15=Where Used F18=Translate F21=Print F24=More

Complete the following fields:

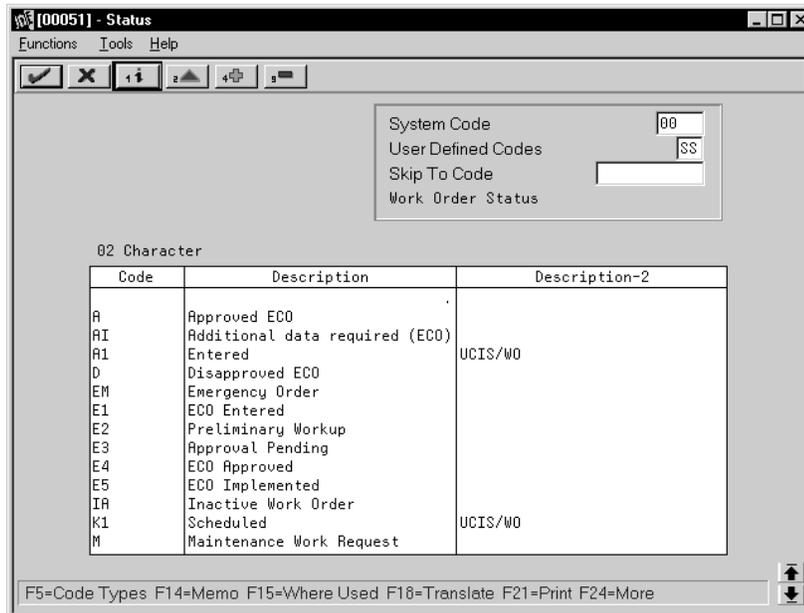
- System Code
- User Defined Code
- Character Code
- Description

► To set up status codes

From the Shop Floor Control Setup menu (G3141), choose Status.

Work order status codes (00/SS) describe the status or the current step in the process of implementing a work order. You can prevent certain transactions from occurring based on the status of a work order. For instance, the system can hold work orders whose status indicates they are pending approval or quality inspection, and release work orders that have a status code indicating they have been approved or passed quality inspection. In addition, you can set the system to automatically update the work order status code when you enter issue and completion transactions.

On Status



The screenshot shows a software window titled "[00051] - Status" with a menu bar (Functions, Tools, Help) and a toolbar. The window contains a form with the following fields:

- System Code: 00
- User Defined Codes: SS
- Skip To Code: (empty)
- Work Order Status: (empty)

Below the form is a table with the following data:

Code	Description	Description-2
A	Approved ECO	
AI	Additional data required (ECO)	
A1	Entered	UCIS/WO
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	
K1	Scheduled	UCIS/WO
M	Maintenance Work Request	

At the bottom of the window, there is a footer with function key descriptions: F5=Code Types F14=Memo F15=Where Used F18=Translate F21=Print F24=More.

Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

► To set up phase codes

From the Shop Floor Control Setup menu (G3141), choose Phase.

Work order phase codes (00/W1) indicate the implementation phase of the work order. You can use phase codes to group families of orders for project management, cost accounting, and inquiry purposes. For example, if inspection on the internal parts of a product is not possible beyond a certain point in its production, you can divide the routing into phases. You can then use the phase code to indicate availability of the product for the next level of inspection.

On Phase

Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

▶ To set up category codes

From the Shop Floor Control Setup menu (G3141), choose Category Code 02.

Work order category codes 02 and 03 can represent any category or description by which you want to group work orders for project management, cost accounting, or inquiries. For example, you can set up one category code to represent types of problems encountered in the work order implementation, such as improper startup or inadequate maintenance, and another code to represent locations where the work is taking place.

On Category Code 02

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**

From the Shop Floor Control Setup menu (G3141), choose Operation Status.

Work order operation status codes (31/OS) indicate the progress or status of an order during the steps followed in a particular operation. For example, you can set up codes to indicate if materials have been received or work begun at a particular operation. This allows management to monitor the progress of operations that have longer run times, or shop floor personnel to indicate when items are ready to move to the next operation.

On Operation Status

Code	Description
10	Waiting for Assignment
15	Material Received
20	Setup Complete
30	Partially Completed
35	Quantity Completed
40	Waiting for Inspection
45	Inspection Completed
89	Waiting Move to Next Operation
90	Move Complete
99	Closed

Complete the following fields:

- System Code
- User Defined Code
- Character Code
- Description

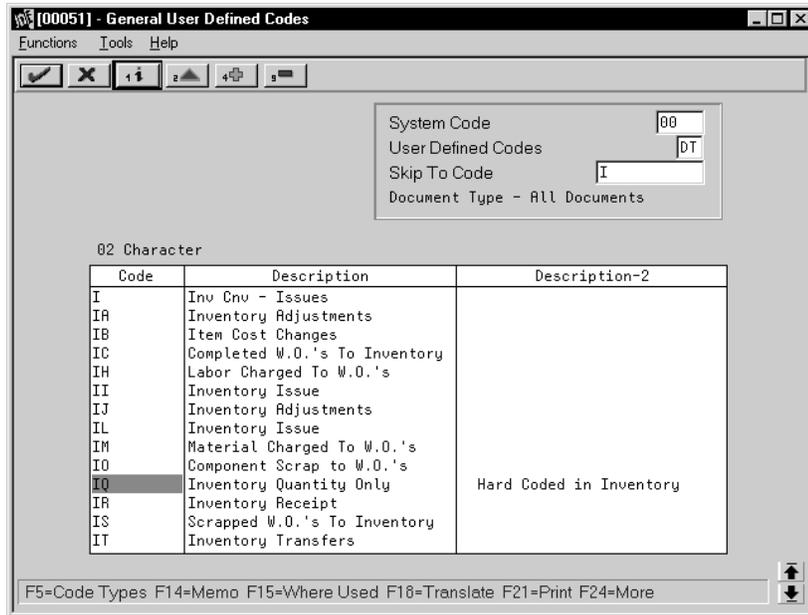
► **To set up document type codes**

From any menu, enter UDC.

You can categorize your work orders by document type using user defined codes (00/DT). For example, you can define document type codes to indicate rework orders, prototype orders, or repair orders. If you do not specify a document type on a new work order, the system enters a document type of WO (Firm Work Order).

Document types are used to categorize information across your J.D. Edwards systems. You can specify up to 12 document types to be used for work orders and rates in supply/demand calculations by entering them in the processing options for the Supply/Demand Inclusion Rules in the Manufacturing Planning system. The Manufacturing Accounting system uses the document type to match the document types defined in your automatic accounting instructions (AAIs) when you post journal entries to the general ledger.

On General User Defined Codes



6. Complete the following fields to locate document types:
 - System Code
 - User Defined Code
7. 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 that is needed for discrete and repetitive 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 the shop floor calendar
- Set up manufacturing constants
- Set up work centers
- Set up resource units

- Set up line and item relationships
- Set up kanban controlled items
- Generate kanbans

Setting Up Standard Procedures



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Standard Procedures

You can set up generic messages (48/SN) that represent procedural or message text for your company. Use them to describe a standard procedure for each step in a routing.

The description you define for the code prints on shop floor documents and appears in online inquiries that access data on Enter/Change Routing.

What You Should Know About

Indicating the procedure to use for routings

After you define standard procedure codes, you can enter them in the Standard Description field on Enter/Change Routing to indicate the procedure to use for each routing operation.

► To set up standard procedures

On Standard Procedures

The screenshot shows a window titled "[00191] - Standard Procedures" with a menu bar (Functions, Options, Tools, Help) and a toolbar. The main area contains a form with the following fields:

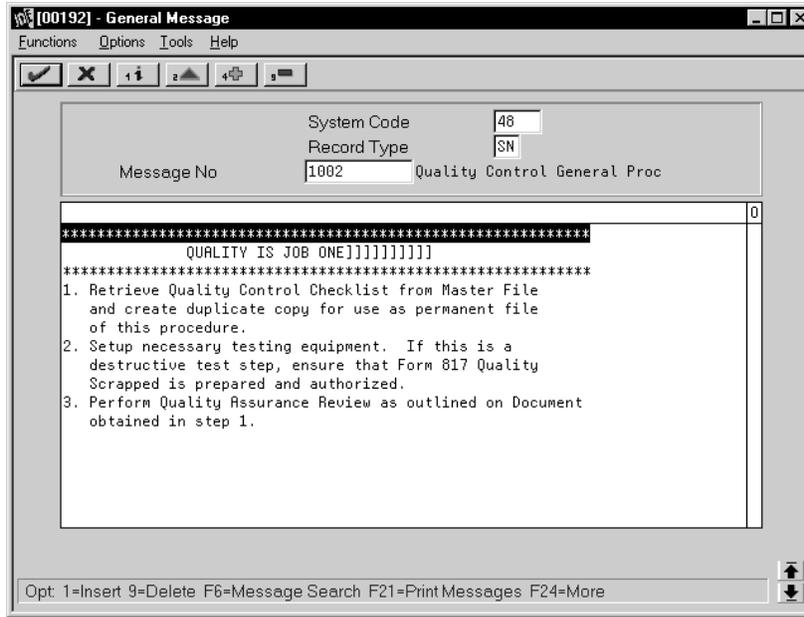
- System Code: 48
- User Defined Codes: SN
- Skip To Code: (empty)
- Standard Descriptions: (empty)

Below the form is a table with the following data:

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 is a status bar with the text: "Opt: 1=General Message F5=Record Types F9=Previous F21=Print F24=More".

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



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Employee Labor Rates

Employee labor rate codes are generic rates (31/ER) that represent hourly labor rates for your employees. The rate that you define for each employee appears in the Employee Rate field on the Hours and Quantities Entry form when the employee enters time transactions. For each code, you can define the name or type of employee that the code represents and the hourly labor rate for the employee or job category.

► To set up employee labor rates

On Employee Labor Rates

Code	Description	Rate
00006001	Allen, Ray	7.7200
00006002	Abbot, Dominique	12.2500
00006003	Akin, Dwight	11.1400
00006010	Assembly line worker	25.0000
00006015	Assembly line Supervisor	50.0000
00006016	f	3.0000
00006017	i	4.0000
00006018	l	5.0000
00006019	l	6.0000
00006020	t	7.0000
00006021	h	8.0000
00006022	e	9.0000
00006023	p	10.0000
00006024	a	11.0000
00006025	g	12.0000

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 the Shop Floor Calendar



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Shop Floor Calendar

You can define the work days by month and year for each branch or all branches in your system in the Shop Floor Calendar. The system uses this calendar to determine manufacturing schedules.

You can also define calendars by shift and name. The system uses these calendars for line sequencing by shift in repetitive manufacturing.

To increase plant capacity, manufacturers run production lines for more than one shift, as well as run different lines of production on different days of the week. You specify these shifts and lines on the Shop Floor Calendar.

What You Should Know About

Deleting a branch calendar

If you delete a branch calendar for a month and year, the calendar record no longer exists. However, if you locate a month and year that does not exist, it appears with default values. You can then add the record.

System defaults

If the shop calendar for the branch, month, and year are not yet defined, the system preloads default work days (Monday through Friday) and weekends (Saturday and Sunday). Holidays are always user defined.

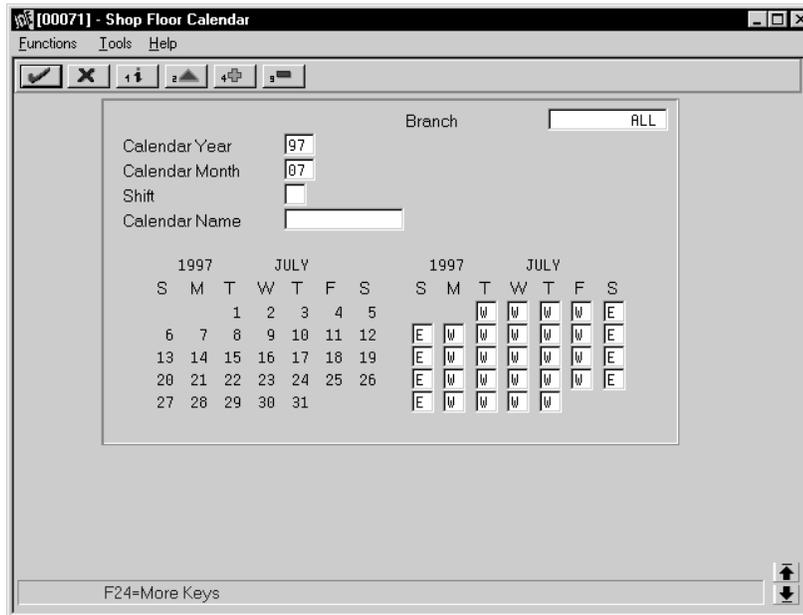
Shift calendars

Shift calendars are not used for DRP/MPS/MRP.

▶ To set up the shop floor calendar

You set up a calendar month by locating the month, year, and branch, and entering any different day types.

On Shop Floor Calendar



Complete the following fields:

- Branch
- Calendar Year
- Calendar Month
- Shift (for repetitive manufacturing)
- Line (for repetitive manufacturing)
- Type of Day

The calendar on the left shows the actual calendar days for the month and year that you requested. The calendar on the right shows the workdays and non-workdays that you define.

Field	Explanation
Branch	<p>A code that represents a high-level business unit. It can be used to reference a branch or plant that might have departments or jobs, which represent lower-level business units (data item MCU), subordinate to it. For example:</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 or plant in which the calendar resides. It must be a valid business unit.</p>
Calendar Year	The calendar year.
Calendar Month	The calendar month.
Shift	<p>A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.</p> <p>For payroll and time entry:</p> <p>If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.</p> <p>If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, this field identifies the shift for the production line.</p> <p>The Line Scheduling Workbench and Line Sequencing Workbench programs use these shift and line specific calendars to schedule production accordingly.</p>

Field	Explanation
Calendar Name	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant.</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 accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field 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 you do not enter a value in the AAI table.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, this field provides the link to the Work Center Master, which allows the system to create calendars for that production line. You must also identify all shifts for the production line.</p> <p>The Line Scheduling Workbench and Line Sequencing Workbench programs use these shift and line specific calendars to schedule production accordingly.</p>

Setting Up Manufacturing Constants



From Shop Floor Control (G31), enter 29

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

You set up manufacturing constants to maintain general branch or plant information that affects processing throughout the Manufacturing system, such as:

- When inventory is committed and backflushed
- Which overhead costs calculations are used
- Whether work center efficiency is considered when calculating direct labor and overhead
- Whether an audit trail tracks all changes made to bills of material
- Whether the system validates bills of material online as you enter them

Information that 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

► **To set up engineering manufacturing constants**

On Manufacturing Constants

Field	Value	Field	Value
Branch	M30 Memphis Mfg. Plant	Backflush Options	1
Log Bill of Material Changes	N	Master Routings (Y/N)	N
On-Line BOM Validation (Y/N)	Y	Commitment Control	3
		Hard/Soft Commit	1
Overheads as Percents or Rates	P	Percent Bill Validation	1
Modify cost by Work Center Eff	Y	Status for Changes	90
Include Efficiency in Overhead	Y	Work Hours Per Day	8.00
Include Var. Labor Overhead in cost	Y		
Calculate Var. on Direct Labor	Y	Hours	8.00
Calculate Var. on Setup Labor	Y	Shift Code / Desc	
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		

1. Complete the following fields:
 - On-Line BOM Validation
2. Complete the following optional fields:
 - Log Bill of Material Changes
 - Master Routings
 - Percent Bill Validation

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 (Y/N)	<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).
Percent Bill Validation	<p>This flag designates whether percent bills are allowed to contain fixed or variable components in addition to the 100% formula. If left blank, only percent components will be allowed and it must total 100%.</p>

See Also

- *Setting Up Manufacturing Constants (P3009) in Product Data Management Discrete Manufacturing Guide*

▶ To set up production manufacturing constants

On Manufacturing Constants

Complete the following optional fields:

- Backflush Option
- Commitment Control
- Hard/Soft Commit
- Hours
- Shift Code

Field	Explanation
Backflush Options	<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>For World: When the hard/soft commit option is set to 2 or 3, any line item in the parts list may be hard committed prior to printing or relieving the inventory.</p> <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>

Field	Explanation
Work Hours Per Day	<p>The number of work hours that the manufacturing plant operates per day.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, identify the number of work hours per shift for the specified branch. The Resource Generation program uses the corresponding shift hours to calculate the available resource units for each shift, and the total for the day.</p> <p>Since the shift hours may apply to different days of the week, the system uses the total of the first three hours to define the work hours per day value.</p>
Shift Code	<p>A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.</p> <p>For payroll and time entry:</p> <p>If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.</p> <p>If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, use the six corresponding shift fields to identify all production line shifts for the specified branch. The Resource Generation program uses the corresponding shift hours to calculate the available resource units for each shift, and the total for the day.</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
Overheads as 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 Eff	<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>If you specified that you want to modify costs by work center efficiency, this field determines whether the cost rollup includes work center efficiency when calculating overhead values. Valid values are:</p> <p>Y Include work center efficiency.</p> <p>N Exclude work center efficiency.</p>
Include Var. Labor Overhead in cost	<p>Controls whether the cost rollup creates cost component C3 (for variable labor overhead) in the Cost Components table (F30026). Valid values are:</p> <p>Y Yes. Create cost component C3.</p> <p>N No. Do not create cost component C3.</p>
Calculate Var. on Direct Labor	<p>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:</p> <p>Y Include direct labor expenses.</p> <p>N Exclude direct labor expenses.</p>

Field	Explanation
Calculate Var. on Setup Labor	<p>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:</p> <p>Y Include setup labor expenses. N Exclude setup labor expenses.</p>
Include Fixed Labor Overhead in cost	<p>Controls whether the cost rollup creates cost component C4 (for fixed labor overhead) in the Cost Components table (F30026). Valid values are:</p> <p>Y Yes. Create cost component C4. N No. Do not create cost component C4.</p>
Calculate Fixed on Direct Labor	<p>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:</p> <p>Y Include direct labor expenses. N Exclude direct labor expenses.</p>
Calculate Fixed on Setup Labor	<p>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:</p> <p>Y Include setup labor expenses. N Exclude setup labor expenses.</p>
Include Var. Machine Overhead in cost	<p>Controls whether the cost rollup creates cost component C1 (for variable machine overhead) in the Cost Components table (F30026). Valid values are:</p> <p>Y Yes. Create cost component C1. N No. Do not create cost component C1.</p>
Include Fixed Machine Overhead in cost	<p>Controls whether the cost rollup creates cost component C2 (for fixed machine overhead) in the Cost Components table (F30026). Valid values are:</p> <p>Y Yes. Create cost component C2. N No. Do not create cost component C2.</p>

Setting Up Work Centers



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Enter/Change Work Centers

You can maintain general information about a work center, such as pay points, prime load codes, number of machines and workers, crew size, and backflush locations.

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 Manufacturing Constants, the system multiplies the Efficiency field value by the direct labor cost to create a B4 cost type (labor efficiency) in the Item Cost Component Add-Ons table.

Warehouse Management interface

If you use Warehouse Management and do not set up valid work center locations, the system interfaces with Warehouse Management when you attach a parts list to a work order. If you do set up valid work center locations before you attach a parts list, but the quantity exceeds the quantity you have in the work center, the system uses Warehouse Management to create a pick request for the remaining quantity to fill the work order request.

Maintaining rates for your work center

From Enter/Change Work Center, you can access Work Center Rate Revisions to maintain both simulated and frozen values for machine and labor hours. You can update the simulated rates, but not the frozen values. The system updates frozen values when you run the Frozen Cost Update program.

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 Enter/Change Work Center, you can access Business Unit Information to maintain business units and track costs.

► **To set up work centers**

On Enter/Change Work Center

1. To locate the record for your work center, complete the following field:
 - Work Center
2. Complete the following optional fields:
 - Dispatch Group
 - Work Center Type (for repetitive manufacturing)
 - Calendar (for repetitive manufacturing)
 - Crew Size
 - Queue Hours
 - Move Hours
 - Replenishment Hours
 - Location – Issue
 - Location Branch
 - Capacity Standard (for repetitive manufacturing)
 - Capacity Unit of Measure (for repetitive manufacturing)
 - Capacity Minimum (for repetitive manufacturing)
 - Capacity Maximum (for repetitive manufacturing)
 - Hours (for repetitive manufacturing)

Field	Explanation
Work Center	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant.</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 accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field 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 you do not enter a value in the AAI table.</p>
Dispatch Group	<p>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) by crew size during costing to generate total labor dollars.</p> <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 for back scheduling without modification by crew size.</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>
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 back scheduling 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>

Field	Explanation
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>
Work Center Type	<p>Defines the type of work center. Possible values are :</p> <p style="padding-left: 20px;">Blank Stand alone work center</p> <p style="padding-left: 20px;">1 Production line in a repetitive environment</p> <p style="padding-left: 20px;">2 Reporting work station within a production line</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, the system verifies the value is not valid as a work center for an operation from the routing.</p>
Calendar	<p>Enter the value of the calendar which corresponds to the calendar type. For example, if the calendar type is ROUTE, enter a valid route code to display the calendar for a particular route.</p>
Capacity Max	<p>The upper limit capacity beyond which a production line can not produce.</p>
Capacity Min	<p>The lower limit capacity beyond which the production line should not operate. This value is decided by management based on efficiencies, costs, etc.</p>
Capacity UOM	<p>Production unit of measure used to express the capacity of a production line. For example Stamps, injections, etc.</p>
Capacity Std	<p>The standard capacity level at which a production line usually operates.</p>
Hours	<p>The number of work hours that the manufacturing plant operates per day.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, identify the number of work hours per shift for the specified work center. Use the six corresponding shift fields to identify all production line shifts for the specified work center.</p>
Shift Code / Description	<p>The number of work hours that the manufacturing plant operates per day.</p> <p>..... <i>Form-specific information</i></p> <p>For repetitive manufacturing, identify the number of work hours per shift for the specified work center. Use the six corresponding shift fields to identify all production line shifts for the specified work center.</p>

Setting Up Resource Units



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Enter/Change Resource Units

Resource unit information indicates the capacity of a work center on a given day. The system uses this information to backschedule work orders in shop floor control and to calculate available hours for capacity planning.

Before You Begin

- Define workdays for the branch or plant in the shop floor calendar

What You Should Know About

Generating resource units

You can manually change the values to account for scheduled or unscheduled downtime, additional shifts, or vacation time. However, each time you run Refresh Resource Units, the system recalculates the form values based on information in the Work Center Revisions, Shop Floor Calendar, and Manufacturing Constants tables and overwrites your manual changes.

You cannot manually change the values if the shift value is an * to show total hours on Enter/Change Work Center.

Refreshing information Refresh Resource Units is a DREAM Writer program that recalculates the work center hours and updates them on the Enter/Change Resource Units form. The system recalculates the resource units for a work center based on information in the Enter/Change Work Center form, Shop Floor Calendar form, and Job Shop Manufacturing Constants table. You can create versions to recalculate the labor, setup, or machine hours and set the processing options to update different dates and branches. Any manual changes that you make to the hours on the Enter/Change Resource Units form is overwritten when you run the refresh process.

The system multiplies the number of machines or employees from the Enter/Change Work Centers form by the work hours per day from the Job Shop Manufacturing Constants table for each work day defined on the Shop Floor Calendar for the branch.

Resource unit calculations for machine and labor related hours are:

Machine related hours (prime load code = C or M)

Number of machines X Work hours per day

Labor related hours (prime load code = L or B)

Number of employees X Work hours per day

See Also

- *Product Data Management Discrete Manufacturing Guide*
- *Setting Up the Shop Floor Calendar (P00071)*

To set up resource units

The Work With Resource Units form shows the work hours available each day of a specified month for a work center.

On Enter/Change Resource Units

1. Complete the following fields:
 - Branch
 - Unit of Measure
 - Work Center
 - Calendar Month/Year
 - Resource Unit
2. Complete the following optional fields:
 - Shift (for repetitive manufacturing)
 - Efficiency
 - Utilization

Field	Explanation
Unit of Measure	A user defined code (system 00/type UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic yard, gallon, an hour, and so on.

Field	Explanation
Work Center	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, or branch/plant.</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 accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field 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 you do not enter a value in the AAI table.</p> <p>..... <i>Form-specific information</i></p> <p>This value identifies the available capacity for the work center.</p>
Shift Code	<p>A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.</p> <p>For payroll and time entry:</p> <p>If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.</p> <p>If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.</p> <p>..... <i>Form-specific information</i></p> <p>You can view the total resources available for a given day by entering an asterisk (*) in this field.</p> <p>For repetitive manufacturing, enter a 1-6 to allow the system to display a specific shift's units, or enter a * to view the total resource availability for the specified time period. While this program displays the total units for the shift/day for work centers defined with a standard capacity and unit of measure in those units, the system stores the data in hours.</p>

Field	Explanation
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	The total resource units for the month.
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

GENERATION:

1. Enter the Generation Start Date. _____
2. Enter the Generation End Date. _____
3. Enter the Branch/Plant to be processed. _____
4. Enter a string of up to 6 shift codes to be processed ('123 ').
If left blank, all shifts will be processed. _____

Setting Up Line and Item Relationships



From Shop Floor Control (G31), enter 29

From Shop Floor Control Setup (G3141), choose Line/Item Relationships

The Line/Item Relationships program allows you to add, change, and delete data stored in the Line/Item Relationships table. These relationships include lines where an item is produced and the amount of resources consumed by an item on each line. Planning uses the record you flag as the default when the system creates rates. The specification for shift and period is only valid for the default line.

► To set up line and item relationships

On Line/Item Relationships

Complete the following fields:

- Branch/Plant
- Item Number
- Line/Cell
- Capacity Units
- Default

- Shift
- Period

Field	Explanation								
Line/Cell Identifier	Defines a production line or cell. Detailed work center operations can be defined inside the line or cell. For rate based manufacturing to use this value for reporting, this value must match the line cell in the header.								
Resource units consumed	Indicates how many of the line's resource units are needed to produce one item.								
Shift Code	<p>A user defined code (07/SH) that identifies daily work shifts. In payroll systems, you can use a shift code to add a percent or amount to the hourly rate on a timecard.</p> <p>For payroll and time entry:</p> <p>If an employee always works a shift for which a shift rate differential is applicable, enter that shift code on the employee's master record. When you enter the shift on the employee's master record, you do not need to enter the code on the timecard when you enter time.</p> <p>If an employee occasionally works a different shift, you enter the shift code on each applicable timecard to override the default.</p>								
Month/Week/Day/Shift	<p>A code that determines the frequency of the schedule.</p> <p>Valid codes are:</p> <table> <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								

Setting Up Kanban Controlled Items



From Product Data Management (G30), enter 29

From Product Data Management Setup (G3041), choose Kanban Master Revisions

You must set up an item on the Kanban Master Revisions program before it is kanban controlled. You define kanbans at the item, branch/plant, and consuming location level. After you define kanban controlled items, use Kanban Calculation to size the kanban, depending on the amount of inventory available. However, if you set the override flag on, the system does not update the record when you run the calculation program.

► **To set up kanban controlled items**

On Kanban Master Revisions

Consuming Location	Supplying Location	Kanban Size	UM	Replenish Lead Time	Src Type	Pha
LA.10	LC.50	30	EA	16.00	1	1
LA.10	LC.50	30	EA	16.00	1	1

1. Complete the following fields:
 - Item
 - Branch/Plant
 - Consuming Location
 - Supplying Location
2. Complete the following optional fields:
 - Kanban Quantity
 - Replenishment Lead Time
 - Source Type
 - Phase
3. Access the detail area.

[3016] - Kanban Master Revisions

Functions Options Tools Help

Item: 2037 Branch/Plant: M20
 Consuming Loc: Front Fork, Touring
 Supplying Loc: B/P:
 Kanban ID:

Consuming Location	Supplying Location	Kanban Size	UM	Replenish Lead Time	Src Type	Pha
LA.10	LC.50	30	EA	16.00	1	1
Kanban ID 725		Line/Cell		Container Quantity		R-C1
Item 2037		Supplier		Number of Cards		30
Supply Loc B/P		Receipts		0		1
Override 0						
LA.10	LC.50	30	EA	16.00	1	1
Kanban ID 726		Line/Cell		Container Quantity		R-C1
Item 2037		Supplier		Number of Cards		30
Supply Loc B/P		Receipts		0		1
Override 0						

Opt 9=Delete F3=Exit F24=More Keys

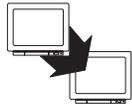
4. Complete the following optional fields:

- Kanban ID 1
- Kanban ID 2
- Supplier
- Item
- Supplying Location Branch/Plant
- Line/Cell
- Container Quantity
- Number of Cards
- Override Flag
- Receipts

Field	Explanation
Supplier	A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, and any other Address Book members.
Replenish Lead Time	The time required before a consuming work center will have a replacement kanban available from its supplying location. This value is used only for kanban card processing in Shop Floor Control.

Field	Explanation
Container Quantity	The capacity of a container in a kanban controlled environment.
Override Flag	This flag can be used to lock the kanban size and quantity to prevent changes by the Kanban Calculation program.
Quantity	The total size of the kanban.
Receipts	Flag used to indicate the receipts process will be executed at kanban check in time.
Phase	<p>This field indicates the method used to transfer completed units from the supplying to the consuming location:</p> <ol style="list-style-type: none"> 1 One phase transfer. The completion is done directly to the consuming location. 2 Two phase transfer. The completion is performed against the supplying location. A subsequent receipt of inventory is needed at the consuming location.
Kanban ID	Unique identifier for the first kanban assigned to an item in a specified branch/plant, consuming location, or supplying location.
Kanban ID 2	Unique identifier for the second kanban assigned to an item in a specified branch/plant, consuming location, or supplying location.
Line/Cell	<p>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.</p> <p>..... <i>Form-Specific Information</i></p> <p>When the source type is a 1 (work center), this field identifies the production line producing the kanban item.</p>
Supplying Location	A code that identifies the location in a branch/plant from which inventory is supplied.
Source Type	<p>Indicates the type of supplying location for a kanban. Valid values are:</p> <ol style="list-style-type: none"> 1 Work center 2 Inventory 3 Supplier
Consuming Location	A code that identifies the location in a branch/plant to which inventory is received.
Item	A number that the system assigns to an item. It can be in short, long, or 3rd item number format.

Generating Kanbans



From Product Data Management (G30), enter 29

From Product Data Management Setup (G3041), choose Kanban Calculation

After you set up the item on Kanban Master Revisions, you can use the Kanban Calculation program to generate and print a kanban per item. However, you can set the override flag on Kanban Master Revisions, to prevent the system from updating the master record.

Use the processing options to:

- Run the program in proof mode
- Print the calculation report
- Update the Kanban Master
- Specify a safety stock other than what is defined in the Item Branch
- Control what percentage the system can change the size of the kanban
- Specify the source for the demand
- Specify a customized calculation program

Processing Options for Kanban Size Calculation

PRINT SELECTIONS:

1. Enter '1' to print KANBAN cards _____

2. Enter '1' to print the calculation report. _____

OPERATION MODE:

3. Enter '1' to create/update Kanban Master records. _____

SAFETY STOCK:

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

FILTER CONTROL:

5. Enter the range, expressed as a percentage, above or below which the Kanban should not be changed. ('15' = plus or minus 15%) _____

KANBAN AVERAGE DAILY DEMAND:

6. Enter a '1' to select summation of the MPS/MRP demands desired, or enter a '2' to select greater of of MPS/MRP demands desired. If no demands are selected, the Planning Time Fence Rule for the item will be used.

- a. Forecasts
- b. Sales Orders
- c. Firm Work Orders
- d. Planned Work Orders
- e. Rate Schedule
- f. Purchase Orders

CALCULATION:

7. Enter number of hours equivalent to one day. (Default is 8)

8. Enter the date range to use for the average daily demand calculation.

- a. Beginning Date (Required)
- b. Ending Date (Required)

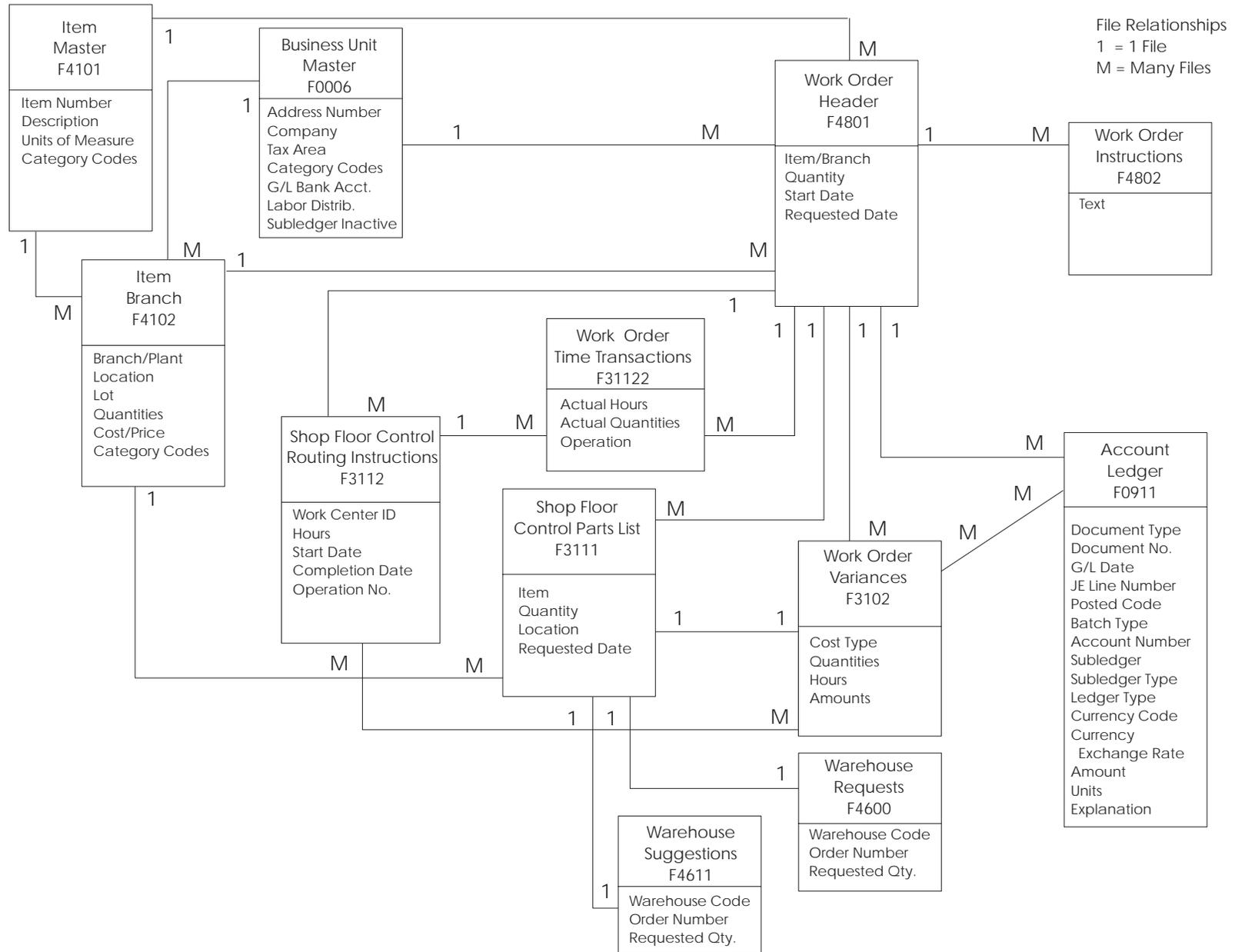
EXTERNAL PROGRAM

9. Enter a '1' to call external kanban size calculation program (P304501).

10. Enter version for P304501. (Default is ZJDE0001)

Appendices

Appendix A — Data Model



Appendix B — Test Yourself Answers

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 or 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, move, and machine run hours
- Work center prime load code
- Number of employees or machines per work center
- Hours per work day

The system:

- Uses the information that you set up for each item on Plant Manufacturing Data in the Inventory Management system
- Coordinates the information with routing and work center information you enter in the Product Data Management (PDM) system
- Determines leadtimes for all parent and component items

At any point in your planning and scheduling process, you can change leadtime values manually through Manufacturing Data.

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.
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 Time Basis Codes. Time basis codes are user defined codes (30/TB).
Resource units	Shows the available amount of capacity in a work center for the months in the calendar. For leadtime purposes, as the system calculates the operation start and due dates, the system uses the available hours to calculate the operation start dates. You can maintain the resource units in Work Center Resource Units.
Prime load code	Determines whether a work center is labor or machine intensive. The prime load code also determines whether the system uses the number of employees or number of machines to determine the daily resource units in the Resource Units table. You can maintain the prime load codes in Work Center Revisions. 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, total queue/move hours, and setup times for purchased parts are zero.

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
Total queue/move	9 hours
Work hours per day	8 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 at 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

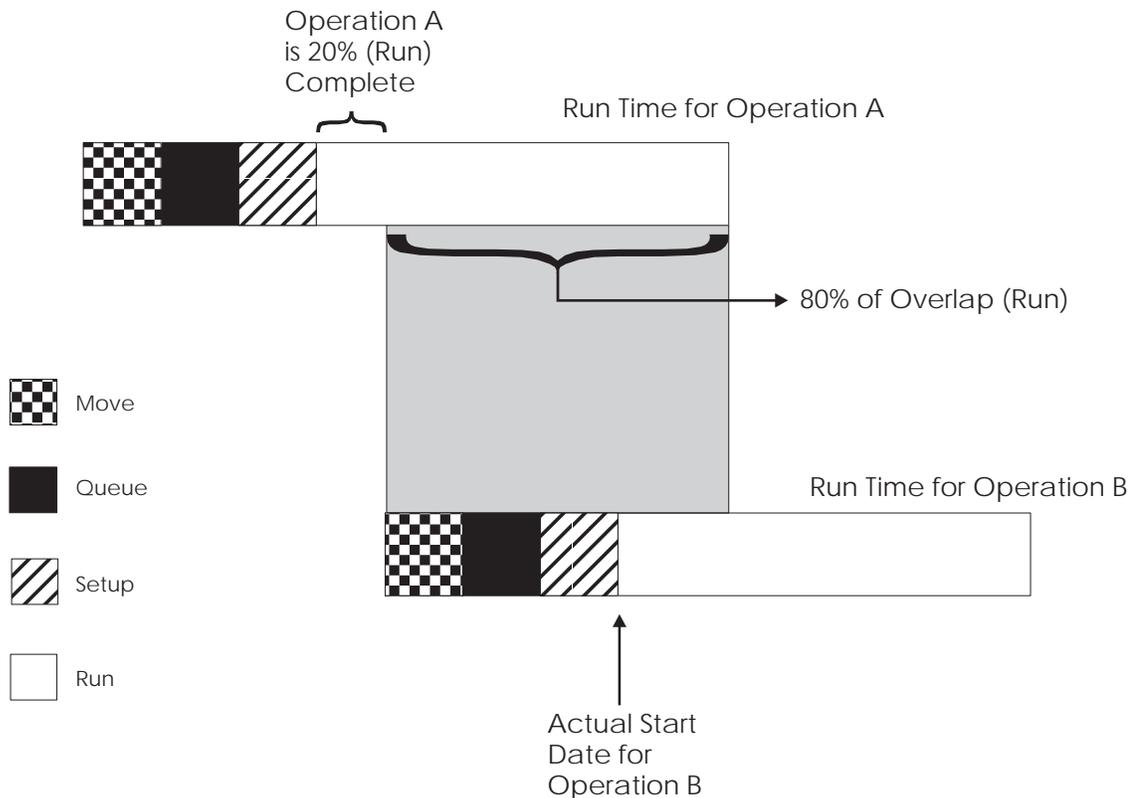
To determine variable leadtimes, the system schedules the actual hours from the work order routing instructions according to the same resource units rules for variable leadtime.

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 routing at the beginning of an operation, and applies move time at the end of an operation.

Overlapping Operations

One method 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 following example, Operation B has a percent of overlap of 80%. This means that Operation B can begin when 80% of Operation A remains to be finished, or when Operation A is 20% complete. Operations A and B are both active as they overlap.



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	04/29/98
Operation 20		
start	04/30/98	04/27/98
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 system then recalculates the start date using the normal backscheduling rules. As a result, operations 10 and 20 overlap and will take 24 hours to complete. The following diagram illustrates this concept.

Date	4/27	4/28	4/29	4/30	5/1	5/2
Resource hours	8	8	8	8	8	8
OP 10 (24 hrs)	←-----	-----	-----→			
OP 20 (24 hrs) (w/o overlap)				←-----	-----	-----→
OP 10 (w/ overlap)	←-----	-----	-----→			
OP 20 (w/ overlap)	←-	-----	-----	---→		

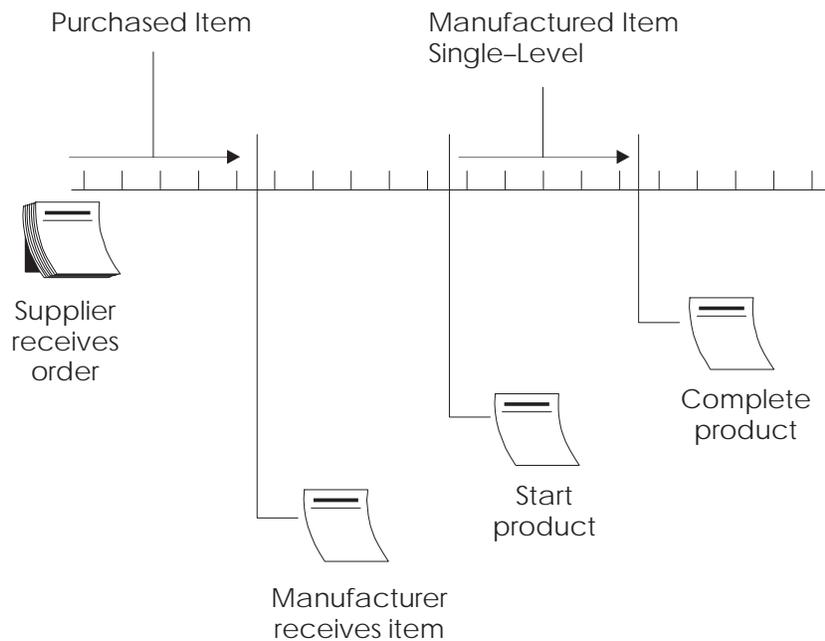
Calculating Leadtimes

The Leadtime Rollup program calculation updates the following within the Plant Manufacturing Data program:

- Level leadtime (if using manufacturing leadtime quantity)
- Manufacturing leadtime
- Cumulative leadtime
- Per unit leadtime
- Total queue/move 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:

$$\frac{\sum \left(\frac{\{(M \text{ or } L) / (E \text{ or } M)\} \times MLQ}{TIMB^*} + \text{setup} + \text{total queue/move hours} \right)}{\text{Work hours per day from Constants table}}$$

* The system reads the Time Basis Code from the Routing Master file (F3003).

The following table defines the values used in the formula.

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

For example:

$$\frac{\frac{\{(8)/(1)\} \times 2,000}{10,000} + \frac{\{(12)/(1)\} \times 2,000}{10,000} + \frac{\{(12)/(1)\} \times 2,000}{10,000} + 1 + 9}{8} =$$

$$(1.6 + 2.4 + 2.4 + 1 + 9) / 8 = 16.4 / 8 =$$

3 days level leadtime

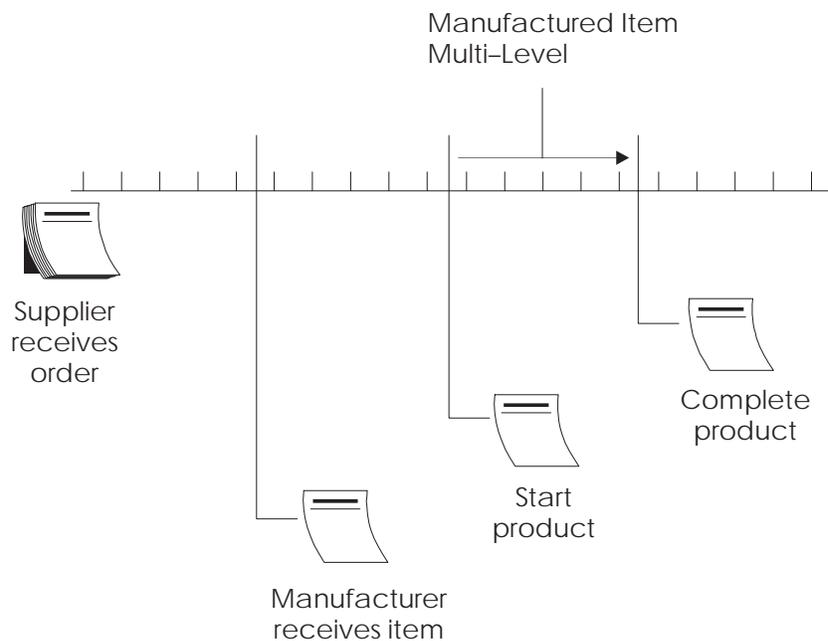
Manufacturing Leadtime

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 house, which includes:

- Order preparation time
- Queue time
- Setup time
- Run time
- Move time
- Inspection time
- Putaway time

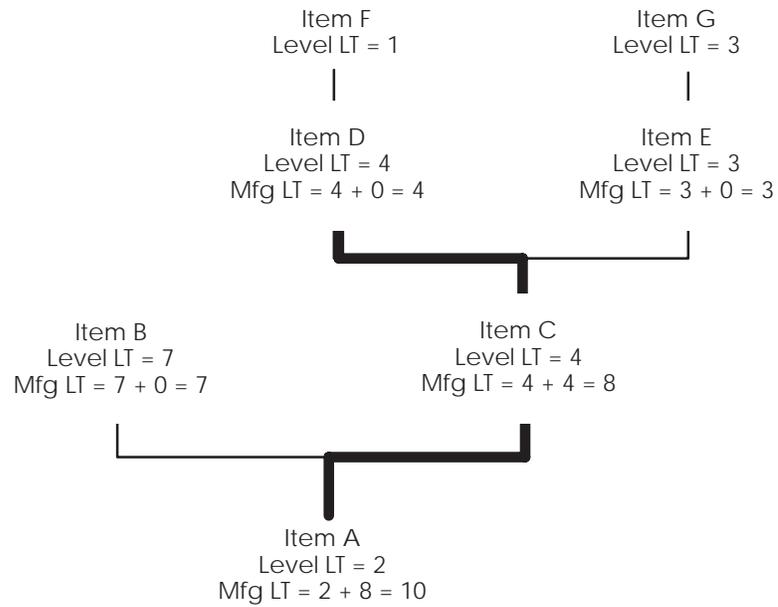
And, it is the total of the level leadtime for a product plus the longest manufacturing leadtime of any of its items.

Leadtimes for purchased items are not included in manufacturing leadtime calculations. The manufacturing leadtime for a purchased item is its level leadtime.



Calculation

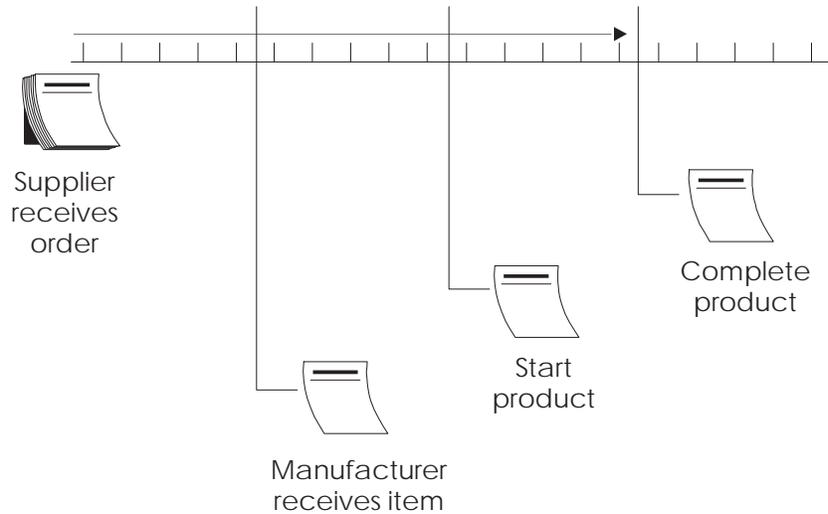
The system uses the following formula to calculate manufacturing leadtime.



Items A, B, C, D, and E are manufactured items.
Items F and G are purchased items.

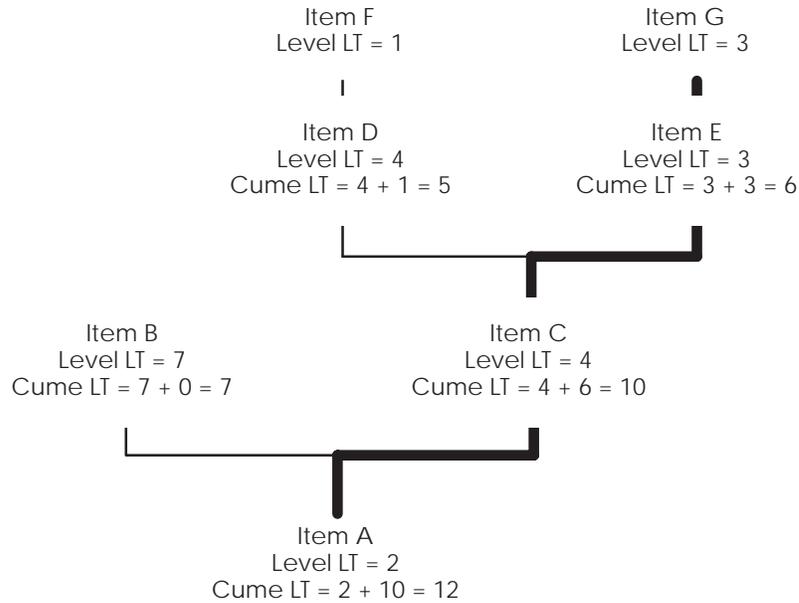
Cumulative Leadtime

Cumulative leadtime is the number of workdays that are required to acquire items and complete a product, from its lowest-level items to the final item, which is the level 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.



Items A, B, C, D, and E are manufactured items.
 Items F and G are purchased items.

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.

$$\sum \left(\frac{\{(M \text{ or } L) / (E \text{ or } M)\} \times \text{TIMB}}{\text{TIMB}^*} \right)$$

For example:

$$\frac{(8 / 1) \times 10,000}{10,000} + \frac{(12 / 1) \times 10,000}{10,000} + \frac{(12 / 1) \times 10,000}{10,000} =$$

$$8 + 12 + 12 =$$

32 hours per unit leadtime

* The system reads the Time Basis Code from the Routing Master file (F3003).

The following table defines the values used in the formula.

(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

Total Queue/Move Hours

Total queue/move hours is the sum of the move hours per routing and the queue hours per routing.

$$(1 + 2) \quad (2 + 4) \quad (0 + 0) \quad = 9$$

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.

$$\frac{1}{1} \quad \frac{0}{1} \quad \frac{0}{1} = 9$$

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.

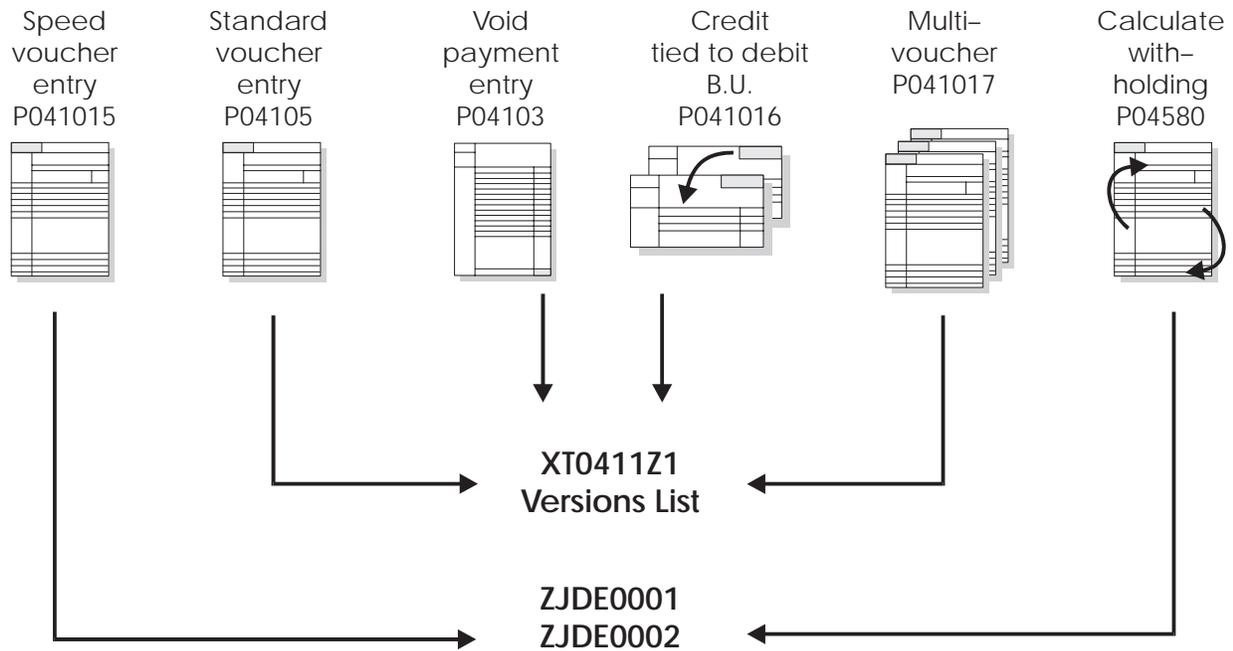
You can have all your entry programs use the same DREAM Writer version (and thus, use the same rules) or you can set up different DREAM Writer versions. J.D. Edwards provides DREAM Writer version ZJDE0001 as the default functional server version for your entry programs.



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 J.D. Edwards systems and the accompanying documentation.

AAI. See *automatic accounting instruction*.

access. To locate the information or functions provided by the system through menus, forms, and reports.

aggregate leadtime. See *cumulative leadtime*.

alphabetic character. Represents data by using letters and other symbols from the keyboard (such as *, &, and #). Contrast with *alphanumeric character* and *numeric character*.

alphanumeric character. Represents data in a combination of letters, numbers, and other symbols (such as *, &, and #). Contrast with *alphabetic character*.

alternate operation. Replacement for a normal operation 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 product for which key components (bulk, semi-finished, intermediate, subassembly, fabricated, purchased, packaging, and so on) 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. Contrast with *make-to-order*.

assembly. A group of items or subassemblies that are put together and constitute an end item.

assembly inclusion rule. A logic statement that specifies under which conditions to use a part, adjust the price or cost, perform a calculation, or use a routing operation for configured items.

associated service type. See *linked service type*.

audit trail. The detailed, verifiable history of a processed transaction. The history typically shows all additions, changes, and deletions of records.

automatic accounting instruction (AAI). A code that refers 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, 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 General Journal program to post a debit to a specific expense account and an automatic credit to a specific accounts payable account.

backflush. The deduction from inventory records of the components or ingredients as a result of the production process. See also *super backflush*.

backscheduling. 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 due dates for each operation.

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 recipe or formula in which the statement of quantity per is based on the standard batch quantity of the parent.

batch header. Information the system 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 system performs these tasks with little or no user interaction.

batch processing. A method by which the system selects jobs from the job queue, processes them, and sends output to the outqueue.

batch type. A code that designates to which J.D. Edwards system the associated transactions pertain, thus controlling which records are selected for processing. For example, the Post General Journal program selects for posting only unposted transaction batches with a batch type of 0.

bill of material (BOM). A listing of all the subassemblies and raw materials that go into a parent assembly showing the quantity of each required to make the assembly. The BOM is used with the master production schedule to determine the items for which purchase requisitions and production orders must be released. There are a variety of display formats for bills of material, including: single level, multi-level, indented, planning, and costed.

Boolean logic operand. In J.D. Edwards' reporting program, 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

bucketed system. An MRP, DRP, or other time-phased system in which all time-phased data is 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 is processed, stored, and usually displayed using dated records rather than defined time periods or "buckets."

bulk issue. Items issued from stores to work-in-process inventory, but not based on a job order, such as miscellaneous fasteners. 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.

business unit. See *facility*.

by-product. A material of positive or negative value produced as a residual or incidental to the production process. The ratio of by-product to primary product is usually predictable. By-products may be discarded, sold as is, or used for other purposes.

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. Syn: *reporting code*.

certificate of analysis. A document which includes all of the tests performed and resulting test data for an item lot sold to a customer.

character. Any letter, number, or other symbol that a computer can read, write, and store. See also *alphabetic character*, *alphanumeric character*, *numeric character*.

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). After 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 are 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.

committed material. Material on hand or on order that is assigned to specific future production or customer orders. Syn: *reserved material*.

co-product. An end item produced as the result of a process. There are usually two or more co-products. See also *end item*.

component. Raw material, ingredient or subassembly that goes into a higher level assembly, process, 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.

component changeout. See *component swap*.

component swap. In Equipment/Plant Management, the substitution of an operable component for one that requires maintenance. Typically, you swap components to minimize equipment downtime while servicing one of the components. When you perform a component swap, you can update the parent and component relationship for each component, as well as the status of each component.

composite leadtime. See *cumulative leadtime*.

configuration management. A rules-based method of ordering assemble-to-order or make-to-order products. Characteristics of the product are defined as part of the Sales Order Entry process. Characteristics are edited using Boolean logic and then translated into the required components and routing steps. The resulting configuration is also priced and costed based on characteristics defined.

configured item segment. A conceptual characteristic of a configured item defined during sales order entry. For example, when ordering a configured personal computer, the customer may specify what type of hard drive is required by simply stating the number of megabytes of capacity, rather than a part number for the hard drive.

constants. Parameters or codes that rarely change. The system uses constants to standardize information processing by an associated system. Some examples of constants are: validating bills of material online and including fixed labor overhead in costing.

consuming location. The point on the production line where a component or subassembly is used in the production process. Used in kanban processing.

corrective maintenance. Any maintenance work that falls outside the scope of preventive or predictive maintenance. Corrective maintenance can be planned, unplanned, or emergency. Examples of corrective maintenance include emergency repairs and maintenance performed to respond to equipment failure. Contrast with *preventive maintenance* and *predictive maintenance*.

corrective work order. In Equipment/Plant Management, a work order that is used to formally request and schedule corrective maintenance and other unscheduled maintenance, such as emergency repairs. Corrective work orders are not generated by the preventive maintenance system. You use corrective work orders to record and communicate all details pertaining to the corrective maintenance task.

cost component. An element of an item's cost, for example, material, labor, or overhead.

costed bill of material. A type of bill of material that extends the quantity per of every component in the bill by the cost of the components. See also *bill of material*.

cost rollup. A simulated scenario in which work center rates, material and labor costs are used to determine the total cost of an item.

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.

critical path leadtime. See *cumulative leadtime*.

cross segment edit. A logic statement that establishes the relationship between configured item segments. These edits are used to prevent ordering of configurations which cannot be produced.

CRP. See *capacity requirements planning*.

cumulative leadtime. The longest planned length of time involved to accomplish the activity in question. For any item planned through MRP, cumulative leadtime 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. Syn: *aggregate leadtime*, *composite leadtime*, and *critical path leadtime*.

current cost. The cost associated with an item at the time a parts list and routing are attached to a work order or rate. Cost is based on the latest bill of material and routing for the item.

data dictionary. A database table consisting of the definitions, structures, and guidelines for the use of fields, messages, and help text. The data dictionary table does not contain the actual data itself.

date pattern. A period of time set for each period in standard and 52-period accounting.

demand. A need for a particular product or component. The demand could come from any number of sources, such as customer order, forecast, an interplant requirement, or a request from a branch warehouse for a service item.

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 should not be forecast. A given inventory item may have both dependent and independent demand at any given time. For example, an item may simultaneously be the component of an assembly and also sold as a service item.

direct labor. Labor that is specifically applied to the product being manufactured.

direct material. Material that becomes a part of the final product in measurable quantities.

discrete manufacturing. Production of distinct items such as cars, appliances, or computers.

dispatch list. A list of sequenced manufacturing orders or rates. The dispatch list contains detailed information on location, quantity, and capacity requirements. Dispatch lists are usually generated daily and are oriented by work center or line.

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.

effective date. See *effectivity date*.

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. Effectivity dates are used in the explosion process to create demands for the correct items. Normally, bills of material and routings provide for an effectivity “start date” (from) and “stop date” (through), signifying the beginning and end of a particular relationship. Syn: *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 commerce. See *electronic data interchange (EDI)*.

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. Syn: *electronic commerce*.

end item. A product sold as a completed item or repair item. Any item subject to a customer order or sales forecast. Syn: *parent item, finished good, and co-product*.

engineering change order (ECO). A work order used to implement and track a change in a manufactured product. This can be a change in design, quantity of items 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 item numbers, bills of material, and routings.

enterprise resource planning (ERP). A closed-loop, integrated system that enables manufactures and distributors to coordinate all of the activities necessary to ultimately fulfill customer demand. This includes activities associated with suppliers, customer, inventory, shop floor, product costing and accounting, forecasting, and planning and scheduling.

expedite. To rush production or purchase orders that are needed in less than the normal leadtime. To take extraordinary action because of an increase in relative priority.

explosion. The process of calculating the demand for the components of a parent item by multiplying the parent item requirements by the quantity per specified in the bill of material. Syn: *requirements explosion*. Contrast with *implosion*.

explosion level. See *low-level code*.

exponential smoothing. A type of weighted moving average forecasting technique in which past observations are geometrically discounted according to their age. The heaviest weight is assigned to the most recent data. The smoothing is termed “exponential” because data points are weighted in accordance with an exponential function of their age.

facility. Identifies a separate entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. Syn: *business unit*.

family. See *master planning family*.

feature. A characteristic of a product or service, such as an option, accessory, or attachment.

FIFO. See *first in, first out*.

finished good. See *end item*.

firm planned order (FPO). A planned order that can be frozen in quantity and time. The system is not allowed to automatically change it; this is the responsibility of the planner in charge of the item that is being planned. This technique can help planners respond to material and capacity problems by firming up selected planned orders. Additionally, firm planned orders are the normal method of stating the master production schedule.

first in, first out (FIFO). A method of inventory valuation for accounting purposes, based on the assumption that oldest inventory (first in) is the first to be used (first out). There is no relationship with the actual physical movement of specific items.

fixed cost. An expense that does not vary with the production volume, for example, setup cost.

fixed order quantity. A lot-sizing technique in MRP or inventory management that always causes 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 quantity. Indicates that the amount of a component or ingredient used in the manufacturing process of an end item remains the same, regardless of the quantity of the end item produced. Contrast with *variable quantity*.

fixed overhead. 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.

forecast. An estimate of future demand. A forecast can be determined by 1) mathematical means using historical data, 2) subjective estimates from informal sources, or 3) a combination of both techniques.

forecast consumption. In Manufacturing and Distribution Planning, forecast consumption occurs when forecast demand is reduced by actual sales orders received or shipped, up to the forecast quantity.

FPO. See *firm planned order*.

frozen cost. After a frozen update, the cost of an item, operation, or process, as used by the Manufacturing Accounting system.

frozen update. A program that freezes the current simulated costs, thereby finalizing them for use by the Manufacturing Accounting system.

Gantt chart. A control chart designed to show graphically the relationship between planned performance and actual performance.

grade. Identifies a rating for an item which is based on how well the item meets required specifications.

header. Information at the beginning of a table. This information is used to identify or provide control information for the group of records that follows.

hidden selections. Menu selections you cannot see until you enter HS in a menu's Selection field. They include items such 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.

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 multi-level (showing the ultimate top-level parent). Syn: *where-used*. Contrast with *explosion*.

indented bill of material. A form of multi-level 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 under every subassembly in which it is used.

indented where-used. A type of bill of material listing for one component every parent item and subassembly, and the respective quantities required. Each of these parent items calls for the given component item in a bill of material table. The component item is shown closest to the left margin of the listing in the bill, 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, administrative work.

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 use of which cannot effectively be determined. Examples of indirect materials include masking tape, rags, and oils. These components might or might not be included in the bill of material.

ingredient. In process manufacturing industries, the raw material or component of a recipe or formula.

in-process inventory. See *work-in-process (WIP)*.

intermediate. Material processed beyond raw material and used in higher level items. Intermediates are not stocked in inventory, sold to customers, or planned by MRP.

issue. The physical movement of items from a stocking location and, often, the transaction reporting of this activity.

item. Any unique manufactured or purchased part, material, intermediate, subassembly, or product, based on form, fit, or function.

item master. A record for an item. This record contains descriptive data and control values (leadtimes, lot sizes, and so on), and might contain data on inventory status, requirements, planned orders, and costs. Item records are linked together by product structure records that define the bill of material for an item.

Just-in-Time (JIT). A type of manufacturing based on planned elimination of all waste and continuous improvement of productivity. The primary elements of Just-in-Time manufacturing 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 revise incrementally the operations themselves; and to keep costs to a minimum.

kanban. Information cards attached to a group or bin of items that travel in and out of a work center. Kanbans 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.

kit. The components of a parent item that have been pulled from stock and readied for movement to a production area.

labor cost. The dollar amount of added value due to labor performed during manufacturing.

last in, first out (LIFO). Method of inventory valuation for accounting purposes, based on the assumption that the most recently received (last in) is the first to be used or sold (first out). There is no relationship with the actual physical movement of specific items.

leadtime. 1) A span of time required to perform a process (or series of operations). 2) In a distribution 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 requires the release of that order in an earlier time period based on the leadtime for the item.

ledger type. A ledger used by the system for a particular purpose. For example, all transactions are recorded in the AA (actual amounts) ledger type in their domestic currency. The same transactions may also be stored in the CA (foreign currency) ledger type.

level. Every item or assembly in a product structure is assigned a code signifying the relative level in which that item or assembly is used within the product structure. Normally the end items are assigned to level 0 with the components and subassemblies of the item assigned to level 1 and so forth. The MRP explosion process starts from level 0 and proceeds downward one level at a time.

LIFO. See *last in, first out*.

linked service type. A service type that is associated with a primary service type. Linked service types are cancelled and the maintenance tasks are performed when the primary service type to which they are linked comes due. You can specify whether the system generates work orders for linked service types, as well as the status the system assigns to work orders that have already been generated. Syn: *associated service type*. See also *primary service type, service type*.

load. The amount of planned work scheduled and actual work released for a 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.

load center. See *work center*.

lot. A control quantity produced together that shares the same production components. Lots are uniquely identified to allow for traceability.

lot number control. Assignment of unique numbers to each instance of receipt. This number carries forth into subsequent manufacturing processes. Thus, in review of an end item lot, each lot consumed can be identified as having been used for the manufacture of this specific end item lot.

low-level code. A number that identifies the lowest level in any bill of material at which a particular component appears. 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 calculated and maintained automatically. Syn: *explosion level*.

machine hours. The amount of time, in hours, that a machine is required to produce a product. Machine hours, rather than labor hours, may be used for planning capacity and scheduling, and for allocating costs.

maintenance loop. See *maintenance route*.

maintenance route. A method of performing PMs for multiple pieces of equipment from a single preventive maintenance work order. A maintenance route includes pieces of equipment that share one or more identical maintenance tasks that can be performed at the same time for each piece of equipment. Maintenance routes eliminate the need to create separate maintenance work orders for each piece of equipment, yet still accommodate all of the features of the preventive maintenance cycle. Syn: *maintenance loop*.

maintenance work order. A term used to distinguish work orders created for the performance of equipment and plant maintenance from other work orders within J.D. Edwards systems, such as manufacturing work orders, utility work orders, engineering change orders, and so on.

make-to-order. A product that is produced after receipt of a customer's order. The final product is usually a combination of standard purchased items and items custom-designed to meet the special needs of the customer. Frequently, long leadtime components are planned prior to the order arriving to reduce the delivery time to the customer. Contrast with *assemble-to-order*.

make-to-stock product. A product that is shipped from finished goods "off-the-shelf," and is finished prior to a customer order arriving. Master scheduling and final assembly scheduling are conducted at the finished goods level.

manufacturing calendar. See *work day calendar*.

manufacturing and distribution planning. Consists of Resource and Capacity Planning and Material Planning Operations. Resource and Capacity Planning allow you to prepare a feasible production schedule that reflects your demand forecasts and production capability. Material Planning Operations provides a short-range plan to cover material requirements that are needed to make a product.

manufacturing leadtime. The total time required to manufacture an item, exclusive of lower level purchasing leadtime. It includes the time for queue, setup, run, and move.

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 planning family. A group of products used in material planning that have similar characteristics.

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. See also *material requirements planning*.

material requirements planning (MRP). A set of techniques that uses bill of material, inventory data, and the master production

schedule to calculate the time-phased net material requirements for every component item and subassembly. MRP suggests a replenishment plan to support the production of the quantities that are specified in the Master Production Schedule. See also *master production schedule*.

model work order. In Equipment and Plant Maintenance, a work order that functions as a template for the creation of other work orders. You can assign model work orders to service types. When the service type comes due, the system automatically generates a work order based on information from the model work order.

MPS. See *master production schedule*.

MRP. See *material requirements planning*.

net added cost. The net added cost represents the cost to manufacture an item at the current level in the bill of material. Thus for manufactured parts, the net added cost includes labor, outside operations, and cost extras applicable to this level in the bill of material, but not materials (lower-level items). For purchased parts, the net added cost also includes the cost of materials.

next number facility. A facility used to control the automatic numbering of such items as new purchase orders, sales orders, and work orders. The next number facility provides a method to increment numbers to reduce transposition and typing errors.

nonconforming product. Items that do not meet the requirements of a relevant specification, contract, regulation, or quality test.

nonsignificant item numbers. Item numbers that are assigned to each item but do not convey any information about the item. They are identifiers, not descriptors. Contrast with *significant item numbers*.

numeric character. Represents data using the numbers 0 through 9. Contrast with *alphabetic character* and *alphanumeric character*.

operand. See *Boolean logic operand*.

operation sequence. The sequential steps for an item to follow in its flow through the plant. For instance, operation 10: cut bar stock; operation 20: grind bar stock; operation 30: shape; operation 40: polish; operation 50: inspect and send to stock. This information is maintained in the routing table.

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 into department overhead, factory overhead, and general overhead. They are distributed to units of product or service by some standard allocation method.

overlap. The percentage by which an operation overlaps the previous operation in the sequence. For example, a 20% overlap means that a step can begin when the previous step is 80% complete.

parent/child relationship. See *parent/component relationship*.

parent/component relationship. 1) In Equipment/Plant Management, a hierarchical relationship of the components of a piece of equipment to the parent equipment. For example, a manufacturing line could be a parent and the machinery on the line could be components of the line. In addition, each piece of machinery could be a parent of still more components. 2) In Product Data Management, a hierarchical relationship of the components and subassemblies of a parent item to that parent item. For example, an automobile is a parent item and its components and subassemblies include: engine, frame, seats, and windows. Syn: *parent/child relationship*.

parent item. See *end item*.

pay on consumption. The concept of not incurring a liability for items received from a supplier until the material is used in the production process.

pegging. In MRP, the ability to identify for a given item the sources of its gross requirements, allocations, or both. Pegging can be thought of as “live where-used” information.

phantom bill of material. A bill of material used primarily for nonstocked items. A phantom bill of material represents an item that is physically built, but rarely stocked. It is instead used in the next step or level of manufacturing. MRP uses the bill to drive the requirements through the phantom item to its components.

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.

planning calendar. See *work day calendar*.

planned order. A suggested order quantity, release date, and due date created by MRP processing when it encounters net requirements. Planned orders at one level are 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. See also *firm planned order*.

planning bill of material. An artificial grouping of items or events in bill of material format, used to facilitate master scheduling or material planning, and forecasting. Syn: *pseudo bill of material*.

planning family. A means of grouping 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.

PM. Refers to one or more service types that are due to be performed for a piece of equipment, based on the service intervals for each service type. When you complete a PM, a new PM cycle begins for the service types included in the PM.

potency. Identifies the percent of a process item in solution. For example, 80% solution could be used in a process that called for 100%, but would require 25% more in terms of quantity to meet the requirement ($100 / 80 = 1.25$).

predictive maintenance. A maintenance strategy that uses computerized data collection and analysis of equipment operating parameters to predict the point at which equipment is expected to fail and then schedules the appropriate procedures just before the expected equipment failure. Predictive maintenance can significantly reduce costs and equipment downtime by eliminating unnecessary preventive maintenance procedures. In addition, by predicting and averting catastrophic equipment failure, predictive maintenance reduces overall maintenance costs and allows for equipment to be operated for its full service life. Contrast with *corrective maintenance* and *preventive maintenance*.

preference profile. The ability to define default values for specified fields for a user defined hierarchy of items, item groups, customers, and customer groups.

preflush. An automatic deduction by the system of materials from inventory when the parts list and routing are attached.

preventive maintenance. Maintenance tasks and procedures that are routine and repetitive, such as periodic lubrications and filter replacements. Preventive maintenance procedures are designed to eliminate breakdowns and the need for corrective maintenance. Contrast with *corrective maintenance* and *predictive maintenance*.

preventive maintenance cycle. Refers to the sequence of events that make up a preventive maintenance task, from its definition to its completion. Because most preventive maintenance tasks are commonly performed at scheduled intervals, parts of the preventive maintenance cycle repeat, based on those intervals.

preventive maintenance schedule.

Defines the service types that apply to a specific piece of equipment, as well as the intervals at which each service type is scheduled to be performed.

primary location. The designation of a certain storage location as the standard, preferred location for an item.

primary service type. A service type to which you can link related service types. For example, for a particular piece of equipment, you might set up a primary service type for a 1000-hour inspection and a linked service type for a 500-hour inspection. The 1000-hour inspection includes all tasks performed at 500 hours. When a primary service type is scheduled to be performed, the system schedules the linked service type. See also *linked service type*.

priority. 1) The relative importance of jobs in a queue. 2) The sequence in which jobs should be completed.

process manufacturing. Production that adds value by mixing, separating, forming, or performing chemical reactions. It may be done in either batch or continuous mode.

product data management (PDM). The Product Data Management (PDM) system enables a business to organize and maintain information about each item it manufactures. Features of this system, such as bills of material, work centers, and routings, define the relationships between components and how they can be combined to manufacture an item. PDM also provides data for other manufacturing

systems including Manufacturing Accounting, Shop Floor Control, and Manufacturing and Distribution Planning.

product family. See master planning family.

production line. A series of work centers or machines allocated to the production of a limited number of items with similar routings.

pseudo bill of material. See *planning bill of material*.

purchased part. An item bought from a supplier.

quality management. A system that allows testing of products based on user defined tests and acceptable result values. Test results can be entered in a consistent fashion at any time in the sales, purchasing, production, or shipping process.

quality control. The process of measuring quality conformance by comparing the actual with a standard for the characteristic and acting on the difference.

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, and to calculate the quantity on the parts list for a work order.

queue. The jobs waiting to be processed at a given work center. As queues increase, so do average queue time and work-in-process inventory.

rated capacity. The demonstrated capability of a system. Capacity is calculated from such data as planned hours, efficiency, and utilization. The rated capacity = available hours x efficiency x utilization.

raw material. Purchased items or extracted materials that are converted through the manufacturing process into components 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 supplier record consists of information such as the supplier's name, address, and telephone number.

release. Authorization to produce or ship material that has already been ordered.

repetitive manufacturing. Producing items in high-volume concentration, often with entire production lines dedicated to a family of products.

replacement parts. Parts that can be used as substitutes. They 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.

replenishment point. The location on or near a production line where requests for additional components or sub-assemblies are to be delivered.

reporting code. See *category code*.

requirements explosion. See *explosion*.

reserved material. See *committed material*.

resource requirements planning (RRP). The process of converting the production plan into capacity needs for key resources: workforce, 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.

revision level. A number or letter representing the number of times a document or item has been changed.

rework order. A manufacturing order to rework and salvage defective parts or products.

rollup. See *cost rollup*.

rough cut capacity planning (RCCP). The process of converting the master production schedule into capacity needs for key resources: workforce, 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.

routing. Information detailing the method of manufacture or maintenance of a particular item. It includes the operations to be performed, their sequence, the various work centers 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 on.

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 or supply. 2) In the context of master production scheduling, the additional inventory or capacity planned as protection against forecast errors or short-term changes in the backlog. Overplanning can be used to create safety stock.

scheduling workbench. A multiple-function program that allows the sequencing of work orders and/or rates on a production line. Sequencing can be automatic based on user defined category code definition or manual. Sequencing includes forward, finite scheduling, including the option to cross shifts or days.

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. Syn: *scrap rate*.

scrap rate. See *scrap factor*.

selection. Found on J.D. Edwards 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.

sequencing. Determining the order in which a facility processes different jobs.

serial number. A unique number assigned to identify a specific item with a lot size of one.

service interval. Refers to the frequency at which a service type is to be performed. Service intervals can be based on dates, periods, or statistical units that are user defined. Examples of statistical units are hours, miles, and fuel consumption.

service type. An individual preventive maintenance task or procedure, such as an inspection, lubrication, or overhaul. Service types can apply to a specific piece of equipment or to a class of equipment. You can specify that service types come due based on a predetermined service interval, or whenever the task represented by the service type becomes necessary.

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 labor costs associated with setting up an operation for the next product.

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 calendar. See *work day calendar*.

shop floor control. A system that uses data from Product Data Management, Master Production Schedule, and Material Requirements Planning to create, maintain,

and communicate status on shop orders (work orders.). 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 machines and labor resources.

shrinkage. Reductions of actual quantities of items in stock, in process, or in transit. The loss might be caused by scrap, theft, deterioration, evaporation, and so forth.

shrink 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 shrink 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 a single component. Syn: *shrinkage rate*.

shrinkage rate. See *shrink factor*.

significant item numbers. Item 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. Contrast with *nonsignificant item numbers*.

simulated cost. After a cost rollup, the cost of an item, operation, or process according to the current cost scenario. This cost can be finalized, by performing a frozen update. You can create simulated costs for a number of cost methods, for example, standard, future, and simulated current costs. See also *cost rollup*.

simulation. 1) The technique of using representative or artificial data to reproduce a model of 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, using the operational data to perform “what if” evaluations of alternative plans to determine the feasibility of the model.

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 type of bill of material listing each parent in which a specific component is directly used and in what quantity.

specification. A statement of the technical requirements of an application or item and the process involved to ensure the requirements are met.

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 needed 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. Syn: *run size*.

standard cost. The expected, or target cost of an item, operation, or process. Standard costs represent only one cost method in the Product Costing system. You can also calculate, for example, future costs or current costs. However, the Manufacturing Accounting system uses only standard frozen costs.

standard costing. A cost system that uses cost units determined before production. For management control purposes, the system compares standards to actual costs and computes variances.

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, or 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 for allocating overhead in cost accounting systems.

subassembly. An assembly that is used at a higher level to make up another assembly.

substitution. Using alternate components in production when the primary item is not available.

super backflush. Creates backflush transactions against a work order at pay points defined in the routing. This allows you to relieve inventory at strategic points throughout the manufacturing process. See also *backflush*.

supplier scheduling. Provides suppliers with consistent shipping information and advanced demand profiles to support just-in-time production and delivery. The supplier scheduling system includes a business agreement and delivery schedule for each supplier. Supplier scheduling includes a formal priority planning system and EDI functionality to provide the supplier with valid due dates.

supply chain. The link from the initial raw materials to the consumption of the finished product.

supplying location. The location from which inventory is transferred once quantities of the item on the production line have been depleted. Used in kanban processing.

threshold percentage. In Equipment/Plant Management, the percentage of a service interval that you define as the trigger for maintenance to be scheduled. For example, you might set up a service type to be scheduled every 100 hours with a threshold percentage of 90 percent. When the equipment accumulates 90 hours, the system schedules the maintenance.

throughput. The total volume of production through a facility (machine, work center, department, plant, or network of plants).

time series. A set of data that is distributed over time, such as demand data, in monthly time periods.

traceability. The ability to trace the production history of a product for quality or warranty purposes. This is usually done through the use of lot or serial numbers to link raw materials from the supplier to the end product. Lot/SN traceability can be a government requirement in certain regulated industries, such as the pharmaceutical or automotive industries. See also *lot*.

unit cost. Total labor, material, and overhead cost for one unit of production.

unit of measure. The unit by which the quantity of an item is managed, such as by weight, each, box, package, case, and so forth.

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.

variable quantity. In manufacturing, a variable quantity of a component or ingredient indicates that the amount required varies based on the quantity of the end product produced. Contrast with *fixed quantity*.

variance. 1) In Product Costing and Manufacturing Accounting, the difference between two methods of costing the same item. For example, the difference between the frozen standard cost and the current cost is an engineering variance. Frozen standard costs come from the Cost Components table, and the current costs are calculated using the current bill of material, routing, and overhead rates. 2) In Equipment/Plant Management, the difference between revenue generated by a piece of equipment and costs incurred by the equipment.

where-used. A listing of every parent item that calls for a given component, and the respective quantity required, from a bill of material file. Syn: *implosion*.

work center. A specific production facility with identical capabilities, consisting of one or more people, machines, or both. A work center can be considered as one unit for purposes of capacity requirements planning and detailed scheduling. Syn: *load center*.

work day calendar. A calendar used in planning functions that consecutively lists only the working days so that component and work order scheduling can be done based on the actual number of work days available. Syn: *planning calendar*, *manufacturing calendar*, and *shop floor 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. Syn: *in-process inventory*.

work order life cycle. In Equipment/Plant Management, refers to the sequence of events through which a work order must pass to accurately communicate the progress of the maintenance tasks it represents.

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