

PeopleSoft®

EnterpriseOne JDE5
Shop Floor Management
PeopleBook

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EnterpriseOne JDE5
Shop Floor Management PeopleBook
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Overviews

Overviews

Shop Floor Management plays a key role in managing the flow of materials inside the plant. An effectively implemented shop floor management system serves as a mediator between production control and the shop floor. The J.D. Edwards Shop Floor Management system provides an effective way to maintain and communicate information that the system requires to complete production requests.

This section provides overview information about shop floor management in the manufacturing industry as well as information about how the J.D. Edwards Shop Floor Management system integrates with other J.D. Edwards systems.

Industry Overview

This chapter introduces you to the industry concepts associated with the shop floor environment. In addition, this chapter outlines examples of typical problems that are inherent in a shop floor environment, as well as J.D. Edwards' solutions through Idea to Action.

Industry Environment and Concepts for Shop Floor Management

Shop floor management encompasses the control of workflow. In a shop floor management system, decisions are made about the flow of material through a company's factory. A traditional shop floor uses dispatch lists, capacity requirements, finite scheduling, capacity planning, capacity simulation, and optimization. Some companies might also use bar coding, kanban, and just-in-time manufacturing processes on the shop floor.

Industry Challenges

Customers today want specialized products and shorter lead times from order to delivery of product. Manufacturers must respond faster to the changing needs of their customers. Currently, manufacturers struggle with manual paperwork, slow response times, and lack of system integration. Additionally, the need for higher product volume versus the complexity of the manufacturing steps requires a systematic management. To solve these problems, manufacturers require flexibility and agility to provide specialized products at a faster rate and a competitive price.

First, manufacturers must control the shop floor. That is, they must initiate, maintain, and report on all activity that occurs on the shop floor. Manufacturers then need to communicate this information to the rest of the company. A company that has a well-run shop floor depends on a fast, accurate, and flexible system to produce a quality product.

Shop Floor Process

The process of scheduling production begins with managing the release of orders to the shop floor. Scheduling production involves setting realistic priorities and adjusting schedules based on required dates and actual dates.

The next step is to manage production by controlling work that is in progress on the shop floor. This means that you must track production on the shop floor to update the system. Updating your system entails tracking the status of jobs and obtaining the most up-to-date

information on production activity. Once a company is set up to monitor the shop floor, the system reports information required by various departments.

Industry Improvements

Shop floor tracking includes monitoring machine status, absent employees, operations not finished on time, and parts rejected, all of which significantly impacts the shop floor schedule. When the system monitors and reports this information, it provides redirection and recovery to meet the customer's due date.

The shop floor reports provide both estimated and actual costs. A company can compare the amount of time, material, and labor placed into the production of the end item to what they planned. A company can use the information from the system to drive improvements on the shop floor.

The system eliminates waste from non-value added activities, decreases work-in-progress, and shortens product life cycles. These improvements all result in increased product quality, flexibility, and speed. The J.D. Edwards Shop Floor Management system meets the customer's expectations of total lowest cost and highest quality while providing manufacturing lead time that ensures on-time deliveries.

Idea to Action: The Competitive Advantage

The following table provides examples of typical problems in the manufacturing industry, the business activator that will resolve each problem, the return on investment, and the industries that are affected by each problem.

Multinational companies might have incompatible shop floor systems that force them to plan manually. This is both time consuming and inaccurate.	You can use multisite planning to define bills of material (BOMs) and routings for each facility for the same item. The system displays material, BOMs, and routings for all defined business units. Accurate planning consists of current work in process (WIP), inventory, BOMS, and routings. Integration in multisite planning ensures accurate and efficient planning and reduces item numbers and WIP. This results in cost savings for materials, increased accuracy in inventory, and reduction in leadtimes.
A company might forget to account for actual inventory.	Through inventory management in the manufacturing industry, a company can accurately and consistently plan across an organization.
WIP does not always use up-to-date information.	The planning consists of WIP, inventory levels, BOMs and routings.
A company needs to know if it operates at a profit or a loss.	Product costing and accounting functions provide costing and accounting visibility at each level in an organization. The system does the following: <ul style="list-style-type: none">• Compiles single ledgers for records regardless of where the system generates the cost record• Sorts and reports data by summary or detail
A company needs to know the source of its costs.	The system integrates product costing (by item, hours and quantities) and manufacturing accounting. The system breaks down an item's cost into each element that influences the cost. The system does the following: <ul style="list-style-type: none">• Compiles single ledgers for records regardless of where the

system generates the cost record

- Sorts and reports data by summary or detail

With product costing, you can enter time that you spend working on orders. You can also compare this to standard costing through manufacturing accounting and identify any inconsistencies that can be corrected. Product costing provides your system with improved cost visibility and supports better management decisions. The system information can increase a company's accuracy in determining costs to customers.

Many companies need to reduce leadtime.

Using the Leadtime Rollup program, you can see the visibility of leadtimes for each item in each branch. You can identify potential production and delivery problems.

A company produces manufactured items at a rate defined in the routing. Planners can evaluate if the shop floor is on schedule. If it isn't, planners can evaluate the causes and identify solutions early in the production stage.

Inadequate resources force companies to rely on costly overtime to meet manufacturing schedules.

Use the Shop Floor Workbench program to view work orders, work centers, and over-capacity situations in advance. You can also modify the schedule to ensure that production satisfies the demand.

Customer demand is met through improved planning and scheduling in the Shop Floor Workbench program.

Inaccurate conversions and inventory counts occur when a company purchases and issues items in different units of measure.

The system converts different units of measure to a standard UOM. This allows the company to purchase, consume, and produce items in the appropriate units of measure. Inventory is accurate because the system performs conversions. Each item can have as many as eight different units of measure.

Most companies cannot interface with other companies' operating systems.

OneWorld can operate interactively with third-party systems such as Manugistics, and SynQuest. OneWorld users can use the full J.D. Edwards Shop Floor Management system or a compatible third-party system.

Today, companies have more choices about how to run their business and which systems they use to support their business processes.

System Overview

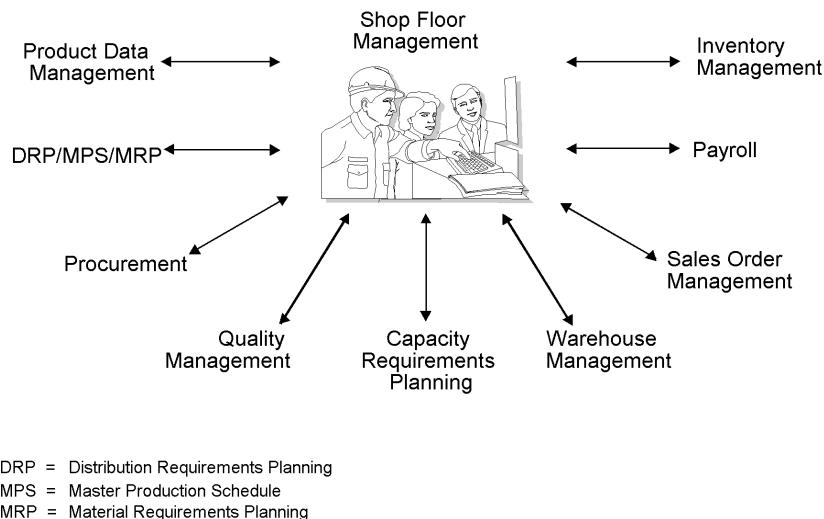
The J.D. Edwards Shop Floor Management system implements the material plan by managing the flow of materials inside the plant. An effectively implemented Shop Floor Management system serves as a mediator between production control and the shop floor. It allows you to manage and track manufacturing work orders. It utilizes data from the shop floor to maintain and communicate status information regarding materials, work centers, routing instructions, and end operations that are required to complete the production requests.

System Integration

Shop Floor Management is one of many systems that make up the Enterprise Requirements Planning and Execution (ERPx) system. The ERPx system enables you to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. ERPx is fully integrated and ensures that information is kept current and accurate across all of 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 graphic identifies the systems that make up the J.D. Edwards ERPx product group. Some systems share system numbers with other systems. For example, Distribution Requirements Planning, Master Production Schedule, and Material Requirements Planning all share the same system code (34).

The Shop Floor Management system integrates with other J.D. Edwards systems to take advantage of single entries, information sharing, and data consistency across systems. These system integrations are described following this graphic.

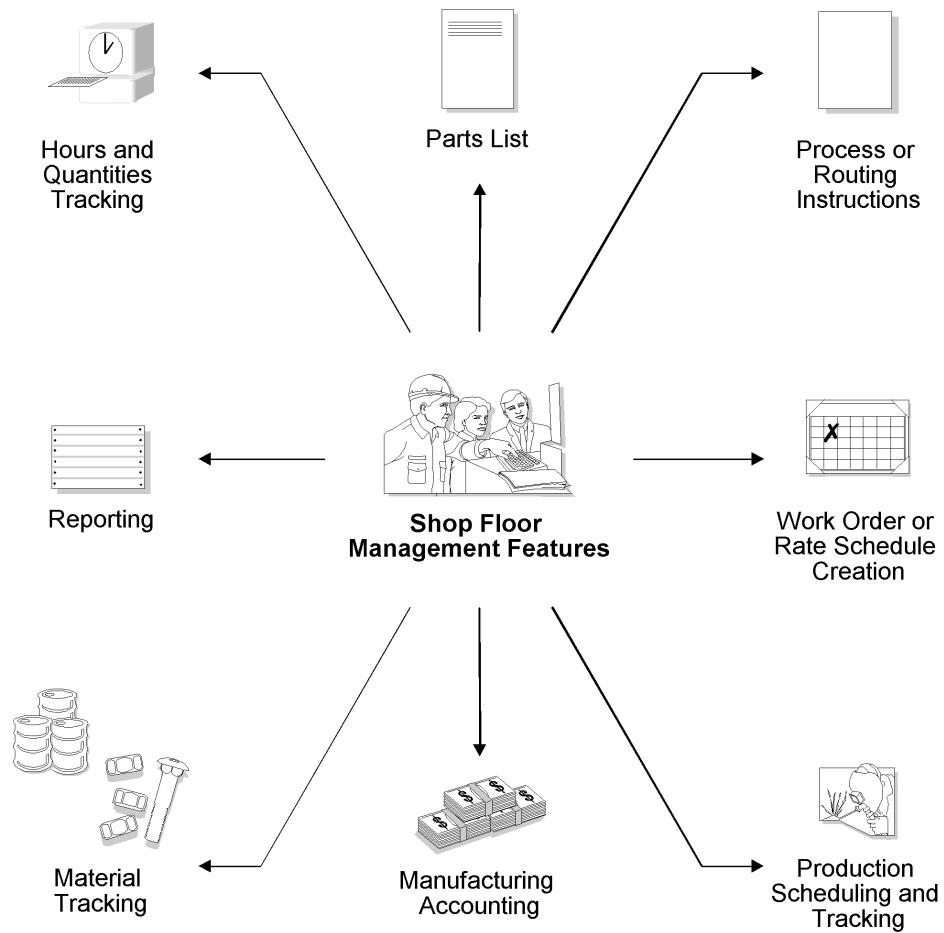


- The Product Data Management system provides information about bills of material, work centers, and routing instructions.
- The Distribution Requirements Planning, Master Production Schedule, and Material Requirements Planning systems provide suggested purchase and manufacturing orders that are required to maintain a valid production schedule.
- The Procurement system allows you to automatically generate purchase orders for subcontracted operations on the routing instructions.
- The Quality Management system allows you to work with test results as you do the following:
 - Create, process, manage, and complete work orders and rate schedules
 - Record actual hours and quantities
 - Backflush labor and parts

- The Capacity Requirements Planning system reads the routing instructions 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 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.
- The Sales Order Management system allows you to generate work orders when you enter a sales order and it updates sales information from within the Shop Floor Management system.
- The Payroll system 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 Inventory Management system allows you to track materials between inventory or storage locations and the shop floor. You can manage inventory issues and commitments, complete orders, and track order quantities throughout the production process.

Features

The following graphic illustrates the features available to you in the Shop Floor Management system. These features are described in detail in the text that follows this graphic.



Hours and Quantities Tracking

You use the hours and quantities tracking features to do the following:

- Enter and track time and quantity completed and quantity scrapped by work order and by employee
- Allocate and track resource usage by work center per calendar month
- Review and analyze work order reports with detail when you use standard versus actual values for the following:
 - Setup, labor, and machine time
 - Quantity completed and quantity scrapped
- Charge actual hours and quantities to a work order as each manufacturing step is completed

Reporting

You use the reporting features to do the following:

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

- Generate shortage reports by item or work order to identify potential manufacturing constraints due to a lack of required components
- Print shop floor paperwork, such as work orders, parts lists, and routing instructions for items
- Review daily work lists to monitor job status, identify queue problems at work centers, and flag other areas, such as engineering changes or lost material

Material Tracking

You use the material tracking features to do the following:

- Create a parts list automatically when you process a work order
- 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 quantities of components issued to a work order and the labor expended with pay point operations
- Signal material movement with kanban processing from inventory, work orders, or purchase orders
- 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 originate with advanced lot control
- Maintain and monitor work orders created from the Sales Configurator system for configured items
- Process work orders that produce co-products or by-products
- 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)

Manufacturing Accounting

You use the manufacturing accounting features to do the following:

- Plan and track costs for setup, labor, material, and overhead
- Compare planned costs against actual costs and calculate a variance amount
- Create journal entries in the general ledger to charge actual costs and variance costs to a work order or rate schedule
- Use feature cost percent for co-product and by-product costing

Production Scheduling and Tracking

You use the production scheduling and tracking features to do the following:

- Schedule work center production for work orders, rate schedules, 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 completion dates for each work order by operation
- Maintain the rate schedule after using rate-based MRP

Work Order and Rate Schedule Creation

You use the work order and rate schedule creation features to do the following:

- Enter work orders or rate schedules manually
- Create work orders and rate schedules automatically from MRP by answering action messages, or from sales order entry, in which you can select kits for assemble-to-order products
- Generate shop floor paperwork automatically, including standard parts lists and routing instructions
- Differentiate work orders and rate schedules by type, priority, and status
- Group work orders by a parent number, for example, for job numbers that contain many work order numbers
- Automatically generate purchase orders for subcontracted operations on the routing instructions for work orders and rate schedules

Process or Routing Instructions

You use the process or routing instructions features to do the following:

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

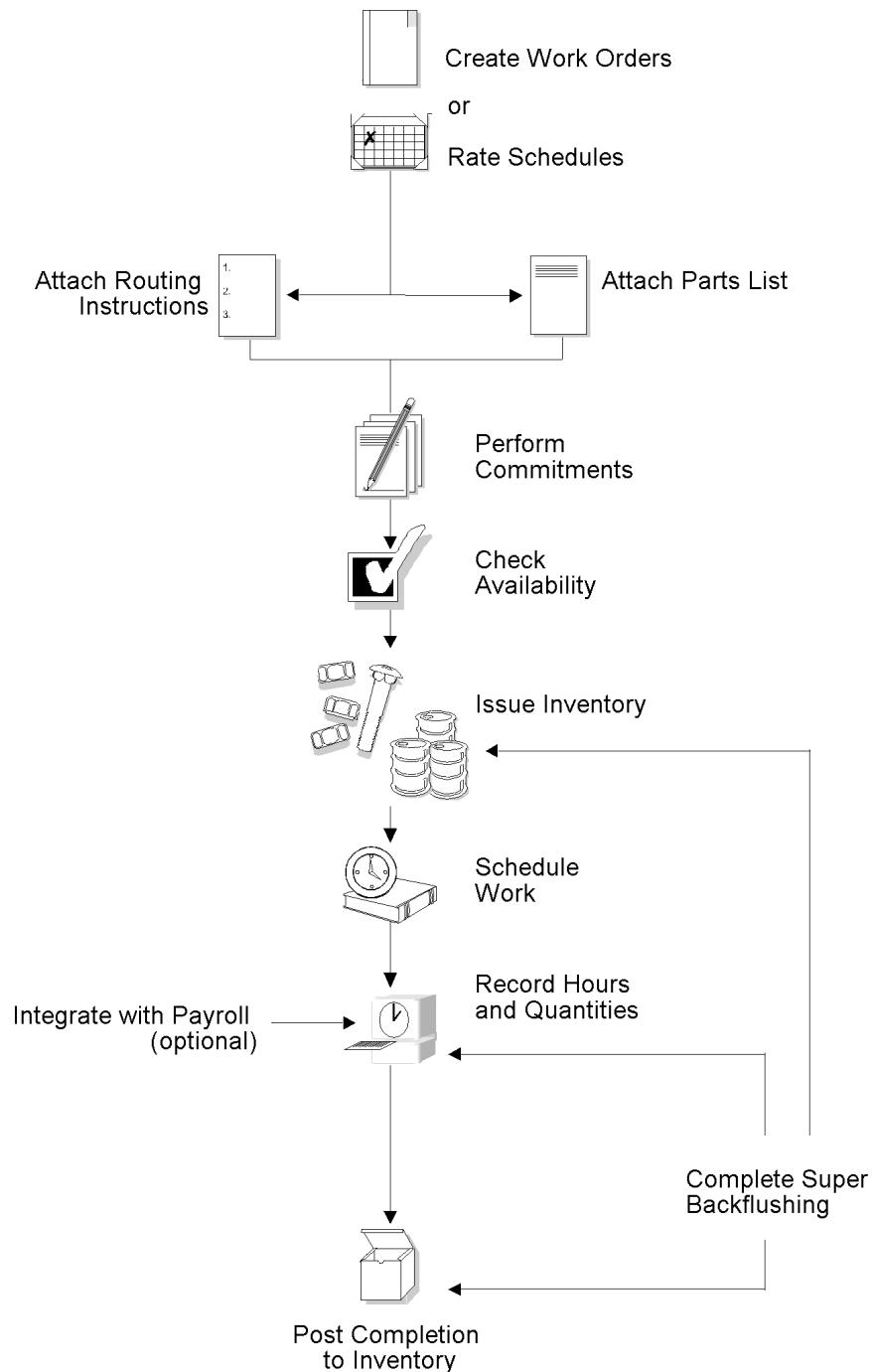
Parts List

You use the parts list features to do the following:

- Generate a parts list automatically when a work order is processed
- Copy an existing bill of material for the items required by a new work order and attach the parts list to the new work order
- Copy a parts list from an existing work order and attach it to a new work order
- 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

Process Flow

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



Tables for Shop Floor Management

The following is a list of the tables that are used throughout the Shop Floor Management system:

Business Unit Master (F0006)	Identifies branch, plant, warehouse, and business unit information, such as company, description, and category codes assigned to that entity.
Generic Message/Rates (F00191)	Contains codes that correspond to a text message and the employee labor rate. In the Shop Floor Management system, this is used for the routing instructions text on a work order.
Account Master (F0901)	Maintains the account data for the general ledger.
Account Ledger (F0911)	Contains the transaction records for the general ledger.
Work Center Master File (F30006)	Contains detailed information about all defined work centers.
Bill of Material Master File (F3002)	Maintains warehouse information at the plant level about bills of materials, such as quantities of components, features, options, and levels of detail for each bill.
Item Cost Component Add-Ons (F30026)	Contains frozen standard costs for the creation of journal entries that are related to (or associated with) work orders.
Routing Master File (F3003)	Contains routing instructions information, including operation sequences; work centers; and run, setup, and machine time.
Work Center Resource Units (F3007)	Contains the capacity information for work centers, such as business unit, month, shift, and efficiency.
Job Shop Manufacturing	Contains general branch/plant information, such as bill of material and routing instructions validation, commitment control, work hours per day, and costs.

Constants (F3009)	instructions validation, commitment control, work hours per day, and costs.
Kanban Master (F3016)	Contains the set of kanban cards that are 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 obtains the item from an external source, the supplier's number is included.
Kanban Card Detail (F30161)	Contains information related to the kanban, such as status, transaction quantity, and date updated.
Production Cost (F3102)	Contains the work order variance. Variance is the difference between actual costs and costs from when the standards were set at the beginning of the accounting period.
Work Order LSN (Lot Serial Numbers) (F3105)	Contains the data that identifies work order assemblies with lot serial numbers.
Summarized WO (Work Order) Cross-Reference (F3108)	Contains the cross-reference information for work orders, such as batch number and date, user, program ID, and workstation.
Item/Line Relationship Master (F3109)	Contains 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 that make up a work order or a rate schedule. The system uses this table for scheduling and sequencing production lines and work centers.
Work Order Parts List (F3111)	Contains the components required by a work order.
Work Order Routing (F3112)	Contains the instructions specific for manufacturing work orders, such as the operations to be performed, their sequence, the various work centers involved, and the standards for setup and run.

Work Order Time Transactions (F31122)	Contains the labor transactions reported on work orders and rate schedules.
Shortage Maintenance Master File (F3118)	Contains component shortages for work orders.
Manufacturing AAlS (F4095)	Contains the automatic accounting instructions for the Manufacturing systems.
Assembly Inclusion Rules (F3293)	Contains the inclusion parameters for item numbers and business units.
MPS/MRP/DRP Message File (F3411)	Contains the supply and demand relationship among the branches.
Forecast File (F3460)	Contains the forecast data that Resource Requirements Planning (RRP) validates. The data is then used as input to MPS/MRP/DRP.
Inventory Constants (F41001)	Contains the constants for the day-to-day transactions that occur within the Inventory Management system. Inventory constants direct the nature of certain integrated operations between Inventory Management and other systems, such as Sales Order Management, Procurement, and General Accounting.
Item Master (F4101)	Contains basic information about each item defined for inventory, such as description, search name, and units of measure.
Item Branch File (F4102)	Maintains warehouse or plant-level information, such as costs, quantities, category codes, and physical locations.
Item Location File (F41021)	Contains all inventory locations for an item.
Item Cross Reference File (F4104)	Contains information that enables you to relate item numbers for a specific purpose.

Lot Master (F4108)	Contains the potency of a lot.
Item Ledger File (F4111)	Contains transaction history for all items.
Item History (F4115)	Contains usage data for items that are optional in some transaction programs in the Shop Floor Management system.
Warehouse Requests (F4600)	Contains putaway, picking, and replenishment movement requests.
Location Detail Information (F4602)	Contains the information for locations, such as item, business unit, and lot.
Warehouse Suggestions (F4611)	Contains the warehouse requests after they have been processed by putaway, picking, or replenishment.
Work Order Master File (F4801)	Contains the work order and rate schedule information, such as item numbers, quantities, dates, lots, locations, and shift codes.
Work Order Instructions File (F4802)	Contains text and instructions for specific work orders that are identified by different record types.

Types of Manufacturing

Discrete, process, and repetitive manufacturing all use bills of material and routing instructions. 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. The routing instructions include the operations to be performed, their sequence, the various work centers involved, and the standards for setup and run.

All types of manufacturing use the term "item" for both the raw materials and finished goods. 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 Management system. Most entry programs have a Unit of Measure field next to the quantity fields. The unit of measure is stored in the database tables with the quantities. The system uses the following three fields in the Item Master table throughout Shop Floor Management as default values in entry forms:

- Component Unit of Measure
- Production Unit of Measure
- Primary Unit of Measure

The primary Unit of Measure value must be the smallest of the three units of measure.

If your company uses or manufactures bulk product, see *Defining Default Units of Measure for Bulk Items* in the *Bulk Stock Management* documentation.

Discrete Manufacturing

Discrete manufacturing is characterized by the following:

- Work orders produce a specific quantity of a single item for a specific completion date.
- Routing instructions are a series of independent operations.
- The total quantity of the work order is completed at each operation before the order moves to the next operation.
- Components are most often manually issued with the release of the work order, backflushed at the completion of the work order, or both.

Discrete manufacturing is most often used in the following manufacturing environments:

- Make-to-stock, using either a highly repetitive or process order based system
- Any of the "to-order" strategies, such as make-to-order, assemble-to-order, or engineer-to-order
- The one-off or job shop environment

Discrete manufacturing is used to produce items such as the following:

- Cars
- Furniture
- Electronics
- Airplanes

Process Manufacturing

Process manufacturing is characterized by the following:

- Work orders produce multiple items, both co-products and by-products, for a specific completion date.
- Routing instructions are a series of dependent operations that work together continuously.
- Products are often produced in batches or with a continuous process.

- Components or ingredients are often stated in terms of a recipe or formula.
- The quantities of components or ingredients can vary according to their grade or potency.
- Components or ingredients are most often issued by preflushing with the release of the work order or backflushed at the completion of the work order.

Process manufacturing is most often used to produce the following:

- Pharmaceuticals
- Foods and beverages
- Raw materials such as lumber, metals, and fluids

The different types of processing in process manufacturing consist of the following:

Batch processing	In batch processing, a product is usually made in a standard run or lot-size determined by vessel size, line rates, or a length of standard run. Items are typically scheduled in short production runs due to the life cycle of the product after its completion. Typical items might be pharmaceuticals, foods, inks, glues, oil or chemical products, and paints. A co-products and by-products list might be generated during batch processing.
Continuous processing	In continuous (or flow) processing, the production period is typically extended, using dedicated equipment that produces one product or product line with slight variations. This method of manufacturing is characterized by the difficulty of planning and controlling variances in quantity and quality yield. Typical items might be petroleum-based products or distilled seawater. Co-products and by-products are generally more prevalent in continuous processing than in batch processing.

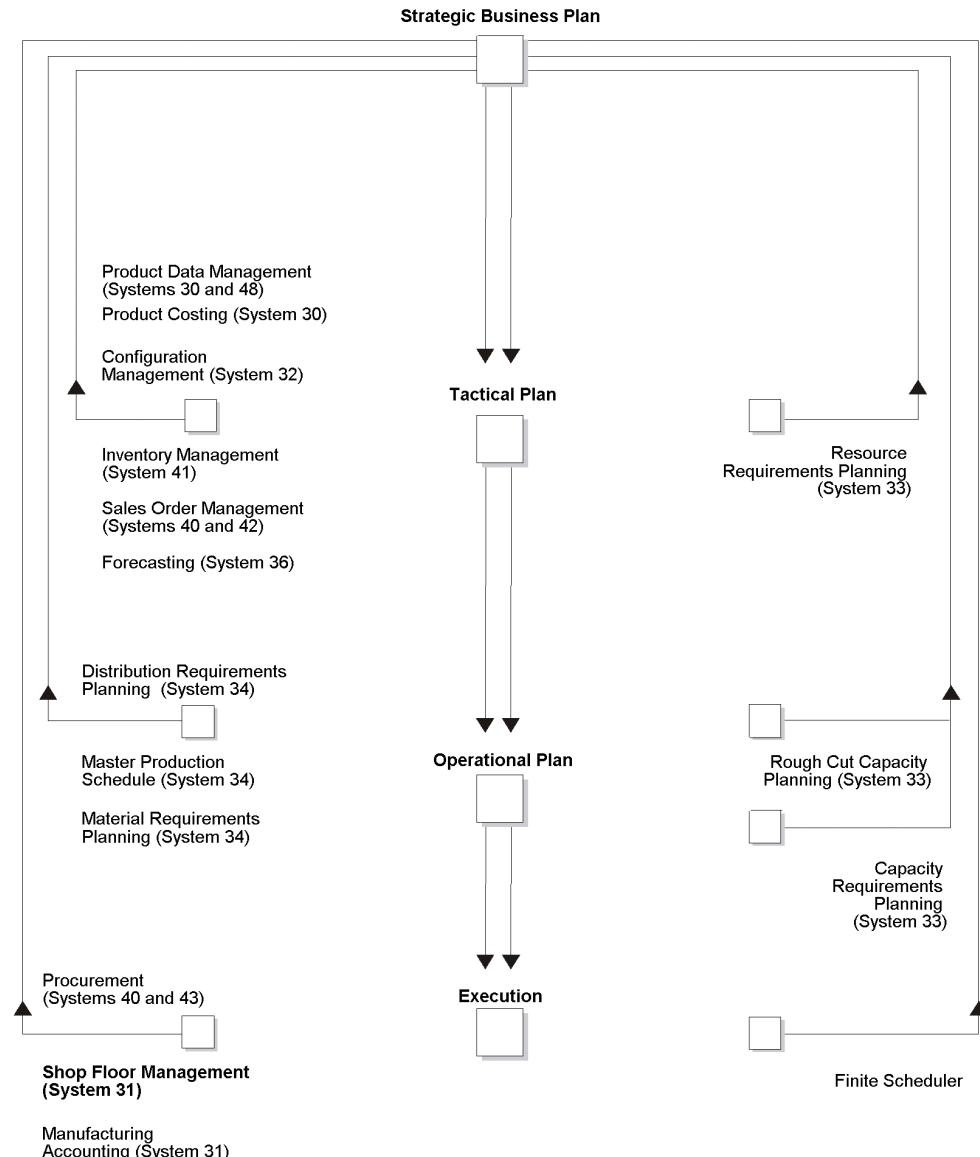
Strategies similar to discrete manufacturing, such as repetitive or any of the "to-orders," (for example, make-to-order, assemble-to-order, or engineer-to-order) might be employed to drive the process. Usually, both batch and continuous processing methods require extensive record-keeping and recording of quality and tolerance values during the process, as well as strict adherence to lot tracing and tracking. Lot tracing is the display of items assigned to a lot. Lot tracking is the display of items removed from a lot.

Repetitive Manufacturing

Repetitive manufacturing is characterized by the following:

- Repetitive manufacturing dedicates entire production lines to a family of products.
- Product families share similar components and routing instructions.
- Products are often 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 minimized.
- Repetitive manufacturing defines production in 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 routing instructions in units per hour at the line level 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.
- Visual cues, called kanbans, control material movement. Kanbans represent predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories.

ERPx
Enterprise Requirements Planning and Execution



Menu Overview

Shop Floor Management (G31)



Daily Processing (G3110)

- S Daily Order Preparation - Discrete (G3111)
- S Daily Order Reporting - Discrete (G3112)
- S Daily Order Preparation - Process (G3113)
- S Daily Order Reporting - Process (G3114)
- S Daily Processing - Repetitive (G3115)
- S Manufacturing Accounting (G3116)



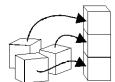
Periodic Processing (G3120)

- S Periodic Functions - Discrete (G3121)
- S Periodic Functions - Process (G3122)
- S Manufacturing Accounting Periodic (G3123)



Shop Floor Management Advanced (G3131)

- S Shop Floor Management Interoperability (G31311)



Shop Floor Management Setup (G3141)

- S Supplemental Data (G3132)
- S Inventory Advanced - Technical Ops (G4131)

Fast Path Commands

The following table lists the fast path commands that you can use to move among the Shop Floor Management menus. From any menu, enter the fast path command in the Fast Path box.

Fast Path Menu Menu Title

SFC	G31	Shop Floor Management
DOPD	G3111	Daily Order Preparation - Discrete
DORD	G3112	Daily Order Reporting - Discrete
DOPP	G3113	Daily Order Preparation - Process
DORP	G3114	Daily Order Reporting - Process
DRB	G3115	Daily Processing - Repetitive
MA	G3116	Manufacturing Accounting
PSFD	G3121	Periodic Functions - Discrete

PSFP	G3122 Periodic Functions - Process
PMA	G3123 Manufacturing Acctg Reports
ASF	G3131 Shop Floor Management Advanced
SSFC	G3141 Shop Floor Management Setup

You can use the Work With User Defined Codes form to locate fast path commands (system 00, code FP).

Setup

System Setup

Shop Floor Management requires some setup prior to using the system. Setup for Shop Floor Management includes identifying the codes needed for work orders, such as priority, status, and category codes, and defining the information needed for discrete, process, and repetitive manufacturing, such as employee labor rates, shop floor calendars, and work centers.

Before You Begin

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

See Also

- About System Setup and About Lot Processing* in the *Inventory Management* documentation for information about setting up the Item Master, Branch/Plant, and Lot Master records
- Customizing User Defined Codes* in the *OneWorld Foundation* documentation for information about defining user defined codes

Understanding User Defined Codes for Work Orders

Many fields throughout Shop Floor Management accept only user defined codes for work orders. You need to define these user defined codes for your manufacturing work orders.

User defined codes are stored in tables by system and code type. For example, system 31, type OS represents Shop Floor Management and a user defined code called operation status. To set up operation status codes for your work orders, identify all the codes that you want to use to identify the different operation statuses when you use the User Defined Codes form. If you enter an operation status code on another form that you did not identify as an operation status code on the User Defined Codes form, the system displays an error message. For example, you can only enter codes in the operation status code field that exist in the user defined code table for system 31 and type OS.

You can access all codes through a single user defined code form. After you choose a user defined code form from a menu, change the system code and user defined code type fields to access another user defined code table. The system stores user defined codes in the User Defined Codes table (F0005).

See Also

- Entering Work Order Headers*
- Customizing User Defined Codes* in the *OneWorld Foundation* documentation for detailed information about user defined codes

Work Order/ECO Type Code (00/TY)

Work order/ECO type codes (00/TY) indicate the classification of a work order. For example, rework orders might be type R and design orders might be type D.

Work Order Priority Code (00/PR)

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. Do not use these codes as your formal priority system.

Work Order Status Code (00/SS)

Work order status codes (00/SS) describe the status of an order 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 that they are pending approval or quality inspection, and release work orders that have a status code indicating that they have been approved or have passed quality inspection. You can also set the system to automatically update the work order status code when you enter issue and completion transactions.

Phase/Matter Codes (00/W1)

Phase/matter codes (00/W1) indicate the implementation phase of the work order. You can use phase/matter 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.

Work Order Category Codes (00/W2 and 00/W3)

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.

Operation Status Code (31/OS)

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 has begun at a particular operation. This code 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.

Document Type Code (00/DT)

Document types are used to categorize information across your J.D. Edwards systems. You can specify up to 12 document types to use 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 your orders to the document types defined in your automatic accounting instructions (AAIs) when you post journal entries to the general ledger. You can use the document type codes (00/DT) to categorize your work orders by document type. 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).

Enter the two-character document type code for which you want the system to track lot quantities in the Codes field. For example, enter OP to allow the system to track lot quantities for all purchase orders.

Unit of Measure Code (00/UM)

Each item that you purchase, issue, manufacture, or sell must have valid unit of measure codes. Each item can have as many as eight units of measure, but one must be identified as the primary unit of measure. You must also set up the conversion tables after you have set up all unit of measure and potent unit of measure codes.

Potent Units Code (00/UP)

Some companies have items that must meet certain potency requirements. Potent units are the codes for units of measure for items with potency. The potent units always have a comparable 00/UM code. For example, if your company uses potency, and measures product in gallons, you set up a code such as GA for gallon and a potent unit code such as GP for the potent gallon. When you set up potent unit codes, you must enter P in the Special Handling code.

When the system creates commitments for an item that is set up with a potent unit of measure, it converts the quantity to the primary unit of measure. For example, if you issue product in GP (potent gallons), the system converts it to the primary unit of measure of GA (gallons).

Setting Up Manufacturing Information

You must set up information that is necessary for manufacturing, such as generic messages, shop floor calendars, manufacturing constants, work centers, resource units, and item-to-line relationships.

Before You Begin

- ❑ Verify that all of the items that you want controlled by kanbans have been set up and that the kanbans have been generated and printed. See *Setting Up Kanban Controlled Items* and *Generating Kanbans* in the *Product Data Management* documentation.

Setting Up Standard Procedures

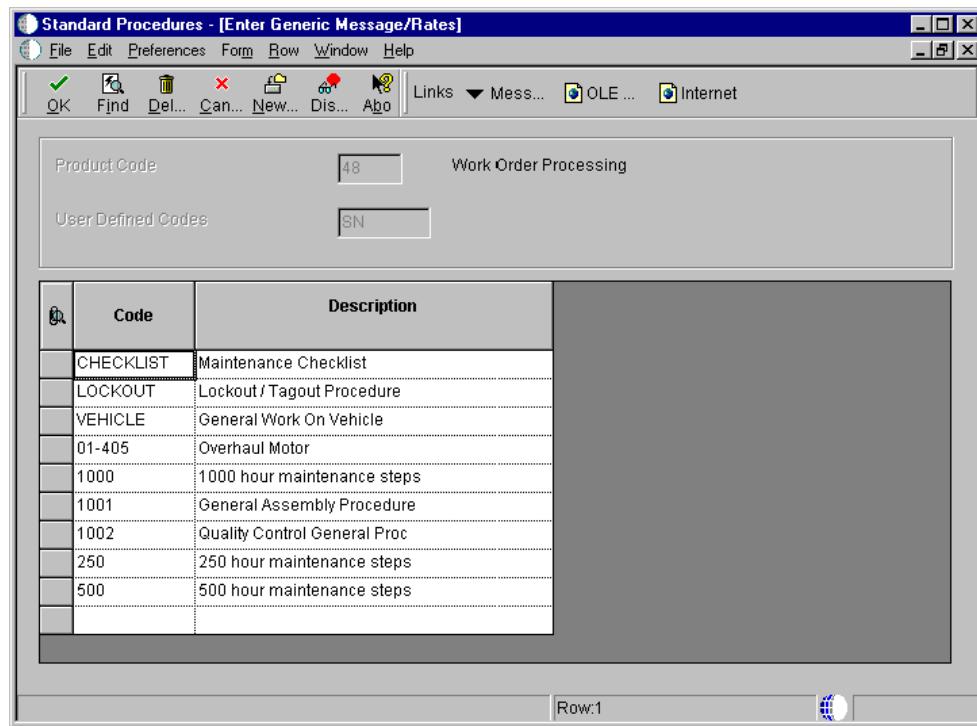
You can set up generic messages (48/SN) that represent procedural or message text for your company. Use them to describe a standard procedure for each step in the routing instructions.

To set up standard procedures, you first define standard procedure codes that appear on shop floor documents and in online inquiries that access data from the Enter Routing Information form. After you define standard procedure codes, you can enter them in the Standard Description field on the Enter Routing Information form to indicate the procedure to use for each operation on the routing instructions.

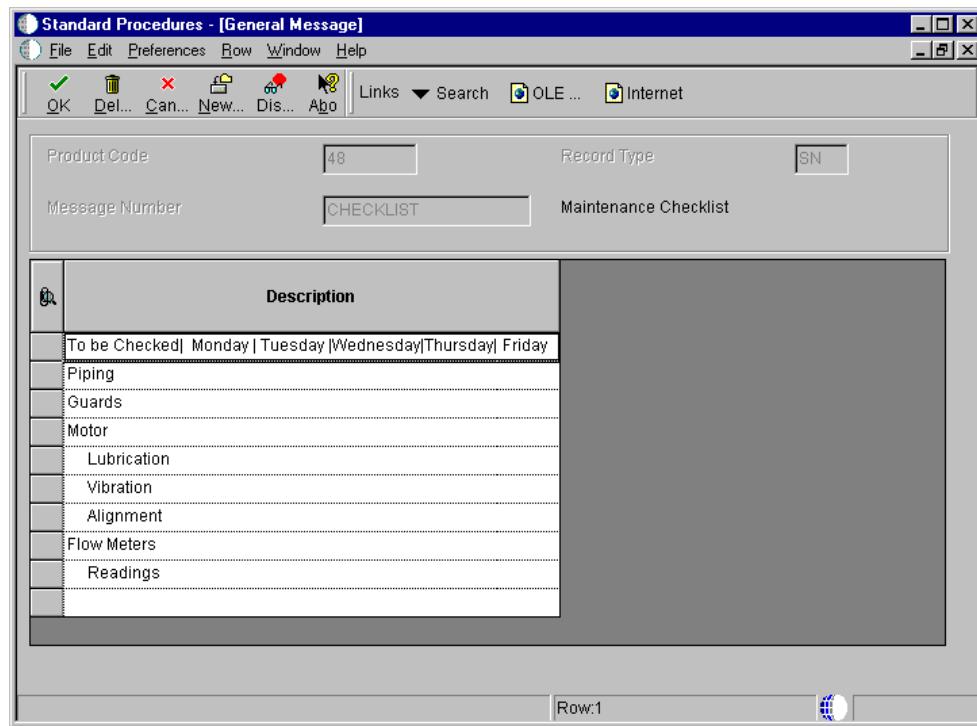
► To set up standard procedures

From the Shop Floor Management Setup menu (G3141), choose Standard Procedures.

1. On Work With Generic Message/Rate Types, choose Message/Rates from the Row menu.



2. On Enter Generic Message/Rates, complete the following fields on the first blank row:
 - User Defined Codes
 - Description
3. Choose the row and then choose General Message from the Row menu.



4. On General Message, complete the following field with the description of the standard procedure:
 - Description8
5. Click OK.
6. On Enter Generic Message/Rates, click OK.

Processing Options for Standard Procedures (P00191)

Defaults

1. Enter the desired System Code.

System Code

2. Enter the desired Record Type.

Tax Authority 5

Record Type

Display

1. Enter a '1' to display Rate Text or a '2' to display Message Text.

Text Type

2. Enter a '1' for 60 column display or a '2' for 80 column display.

Text Column Display

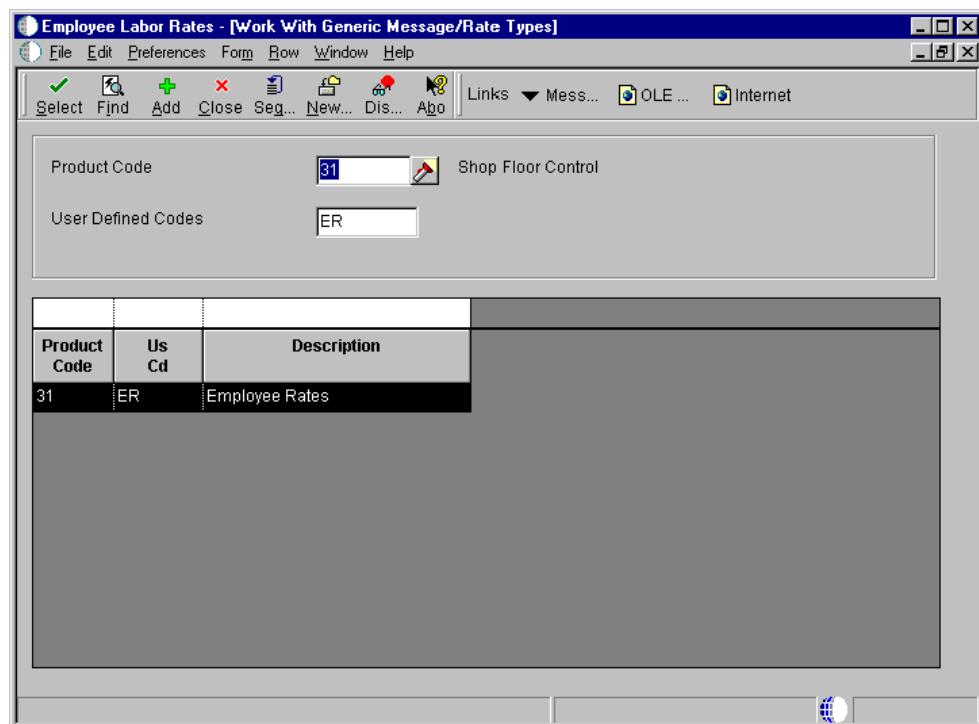
Setting Up Employee Labor Rates

You can set up codes that represent the hourly labor rates for your employees. Table 31/ER contains employee labor rates that the system uses to calculate actual labor costs. 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.

In actual costing, the rate that you define for each employee appears in the Employee Rate field on the Time Entry Revisions form when the employee enters time transactions. See *Setting Up Manufacturing Constants* in the *Product Costing and Manufacturing Accounting* documentation for information on the fields to use for actual costing.

► To set up employee labor rates

From the Shop Floor Management Setup menu (G3141), choose Employee Labor Rates.



1. On Work With Generic Message/Rate Types, choose Message/Rates from the Row menu.

The screenshot shows the 'Enter Generic Message/Rates' dialog box in a PeopleSoft application. At the top, there are buttons for Cancel, Form, Row, Tools, and a red X. Below that, a header bar includes 'Select Workspace: Active Foundation' and links for Personalize, Change Role, and Sign Out. The main area displays a grid of employee records:

Code	Description	Rate
ER	Edwards, J.D. & Company	15.0000
	Walters, Annette	16.5000
	Chester, Ebby	19.0000
	Allen, Ray	18.0000
	Abbott, Dominique	18.5000
	McDougle, Cathy	17.5000
	Mastro, Robert	18.7500
	Mayeda, Donald	16.0000
	Holiday, Anthony	15.0000
	Bellas, Debbie	15.5000

2. On Enter Generic Message/Rates, complete the following fields and click OK:

- Code
- Description
- Rate

The code should represent an address book record of an employee who completes work on a work order.

Setting Up the Shop Floor Calendar

You can define the work days by month and year for each branch or all branches in your system in the Shop Floor Calendar. The system uses this calendar to determine manufacturing schedules.

You can also define calendars by shift. The system uses these calendars for line scheduling and sequencing by shift in repetitive manufacturing. Shift calendars are not used for DRP/MPS/MRP.

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.

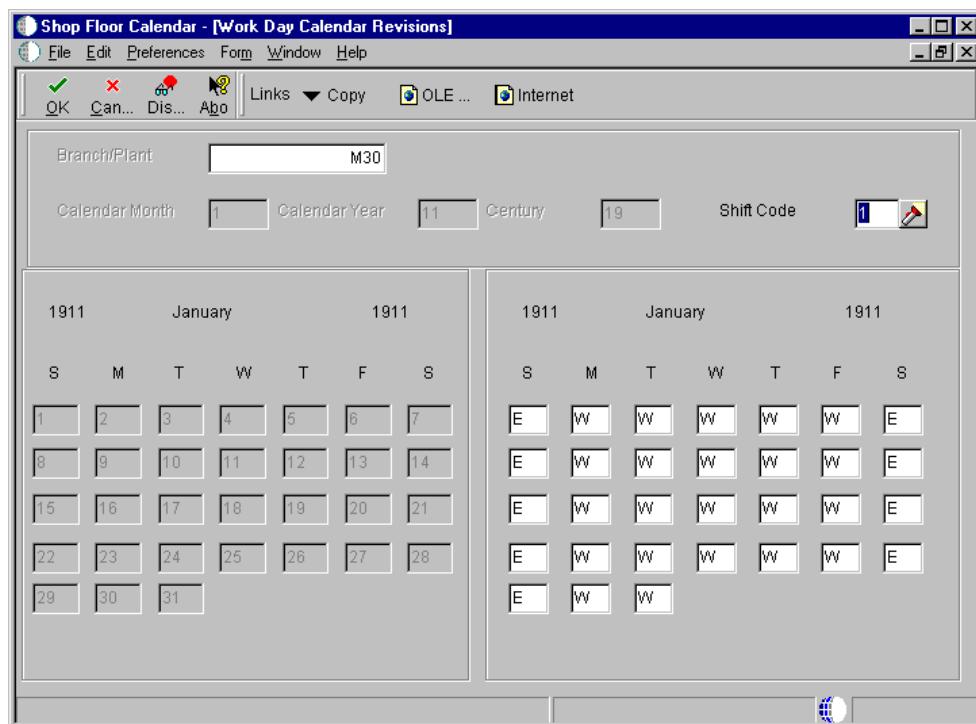
If the shop calendar for the branch, month, and year is not yet defined, the system preloads default work days (Monday through Friday) and weekends (Saturday and Sunday). Holidays are always user defined.

► To set up the shop floor calendar

From the Shop Floor Management Setup menu (G3141), choose Shop Floor Calendar.

You set up a calendar month by first locating the month, year, and branch, and then entering any different day types.

1. On Work With Work Day Calendar, complete the following fields:
 - Branch/Plant
 - Calendar Month
 - Calendar Year
2. Complete the following optional field:
 - Shift Code
3. Click Find to locate work day calendars for the information that you entered.
4. Choose a work day calendar row to create the calendar, and then click Select.



5. On Work Day Calendar Revisions, for each day on the right side of the form, indicate the type of day (work day, weekend, and so on) and click OK.

Note

Manufacturing Planning and Scheduling programs use only days with a value of "W." A day with any other value is treated as a nonworking day by the Manufacturing Planning and Scheduling programs. 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 work days and nonwork days that you defined.

Processing Options for Shop Floor Calendar (P00071)

Interop

1. Enter the transaction type for the interoperability transaction. If left blank, outbound interoperability processing will not be performed.

Type - Transaction

2. Enter a '1' to write before images for outbound change transactions. If left blank, only after images will be written.

Before Image Processing

Setting Up Manufacturing Constants

You set up manufacturing constants to maintain general branch or plant information that affects processing throughout the J.D. Edwards Manufacturing systems. The constants are listed on the Manufacturing Constants Revision form on the following tabs:

Manufacturing constants	These constants specify the following: <ul style="list-style-type: none">• Whether the system validates bills of material online as you enter them• Whether an audit trail tracks all changes made to bills of material• Whether the system uses the master routing for an item or the routing instructions defined for the parent item
Shifts	These constants specify number of work hours that the plant typically operates in a day.
Commitment control	These constants specify when inventory is committed and backflushed.
Costing options	These constants specify which overhead costs calculations are used and whether work center efficiency is considered when calculating direct labor and overhead. Costing options also include the source for machine and labor rates.

Caution

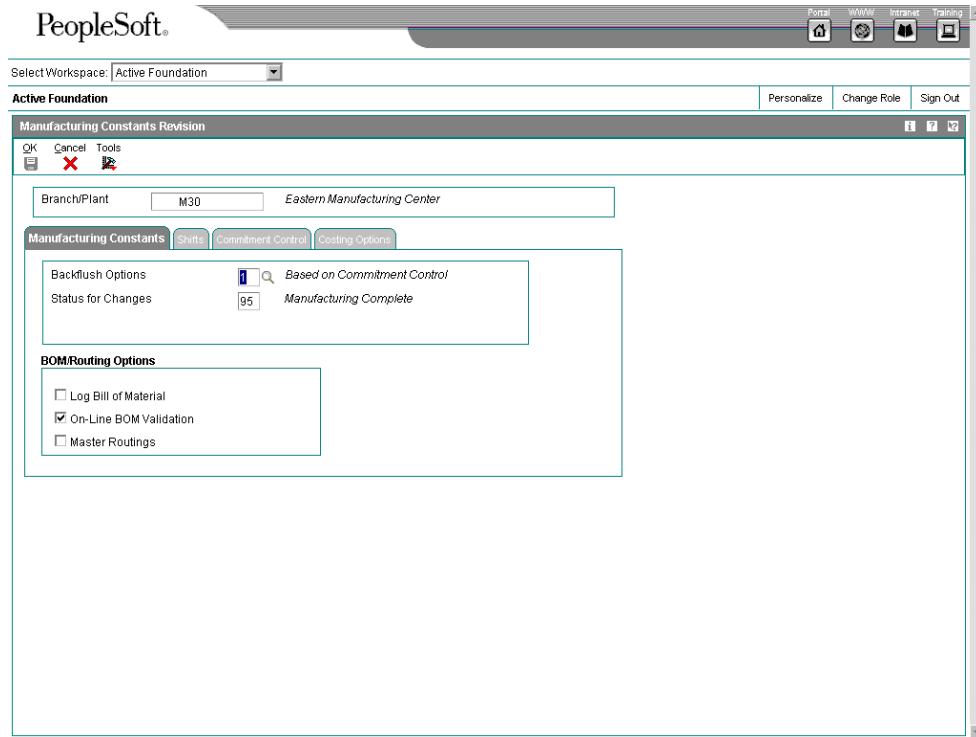
Information that you define for manufacturing constants affects all areas of the J.D. Edwards Manufacturing systems, so you should make your choices carefully.

► To set up manufacturing constants

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

1. On Work with Manufacturing Constants, complete the following field and click Find:
 - Skip to Branch/Plant

2. Choose the appropriate branch/plant and click Select.



3. Click the following required BOM/Routing option:
 - On-Line BOM Validation

4. On Manufacturing Constants Revision (P3009), click the Manufacturing Constants tab and complete the following optional fields:
 - Backflush Options
 - Status for Changes

5. Click any of the following BOM/Routing options:
 - Log Bill of Material
 - Master Routings

6. Click the Shifts tab and then complete the following fields:
 - Work Hours
 - Shift

You can enter hours for up to six different shifts. However, the Work Hours Per Day field is only the total entries of the first three shift hours.

7. Click the Commitment Control tab, and click one of the following Commitment Control options:
 - Primary Location
 - Split-Cross Branch boundaries
 - Split-Don't cross Branch boundaries
8. Click one of the following Hard/Soft Commit options:
 - Hard at creation of Parts List
 - Soft, Hard when printing
 - Soft at creation of Parts List
9. Click the Costing Options tab, and then click any of the following costing options:
 - Modify cost by Work Center Efficiency
 - Include Work Center Eff. in Overhead
 - Include Var. Labor Overhead in cost
 - Calculate Var. on Setup Labor
 - Calculate Var. on Direct Labor
 - Include Fixed Labor Overhead in cost
 - Calculate Fixed on Setup Labor
 - Calculate Fixed on Direct Labor
 - Include Var. Machine Overhead in cost
 - Include Fixed Machine Overhead in cost

10. To set up for actual costing and to identify the source for estimated routing costs, complete the following fields:
 - Machine Rate Source
 - Labor Rate Source

See *Setting Up Manufacturing Constants* in the *Product Costing and Manufacturing* documentation for further information on costing options.

11. Click one of the following Overheads options, and then click OK:
 - Percentages

- Rates

See Also

- *Setting Up Manufacturing Constants* in the *Product Data Management* documentation

Setting Up Work Centers

You can maintain general information about a work center, such as pay points, prime load codes, number of machines and workers, crew size, and backflush locations.

If you activate the Modify Cost by Work Center Efficiency option on Manufacturing Constants Revision, 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.

From the Work Center Revisions program, you can access the Work Center Rate Revisions form to maintain both simulated and frozen values for machine and labor hours. The simulated value is generated after a cost rollup. The frozen value is generated after a frozen update. You can update the simulated rates, but not the frozen values. The system updates frozen values when you run the Frozen Cost Update program. The following J.D. Edwards programs and reports use frozen values:

- Costed Routing Inquiry
- Labor Rate Variance Report
- Work Order Labor Efficiency Report
- cost rollup reports

From the Work Center Revisions program, you can access business unit Information to maintain business units and track costs.

Note

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 work order quantity exceeds the quantity that 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.

Before You Begin

- Set up your work centers and dispatch groups as valid business units on the Revise Single Business Unit form. See *Working with Business Units* in the *General Accounting* documentation.

► To set up work centers

From the Shop Floor Management Setup menu (G3141), choose Enter/Change Work Centers.

1. On Work With Work Centers, click Add.

PeopleSoft®

2. On Work Center Master Revisions, complete the following field:
 - Work Center
3. On the Work Center Master tab, complete the following optional fields:
 - Dispatch Group
 - Crew Size
4. Click the Capacity & Shifts tab and complete the following optional fields:
 - Standard Capacity
 - Capacity UOM
 - Minimum Capacity
 - Maximum Capacity
 - Branch
 - Work Hours
 - Shift
5. Click the Hours & Efficiency tab, complete the following optional fields, and then click OK:

- Queue Hours
- Move Hours

See Also

- Setting Up Simulated Rates for a Work Center in the Product Costing and Manufacturing Accounting documentation*

Processing Options for Work Center Revision (P3006)

Interop

1. Enter the transaction type for the interoperability transaction. If left blank, outbound interoperability processing will not be performed.

Type - Transaction

2. Enter a '1' to write before images for Outbound change transactions. If left blank, only after images will be written.

Before Image Processing

Versions

Manufacturing Constants (P3009)

Business Units (P0006)

Setting Up Resource Units

Resource unit information indicates the capacity of a work center on a given day. The system uses this information to backschedule work orders in Shop Floor Management and to calculate available hours for capacity planning.

You can manually change the values to account for scheduled or unscheduled downtime, additional shifts, or vacation time. However, each time that you run Work Center Resource Units Generation, the system recalculates the form values based on information in the Work Center Revisions, Shop Floor Calendar, and Manufacturing Constants tables, and then overwrites the changes that you entered manually.

Work Center Resource Units Generation recalculates the work center hours and updates them on the Work Center Resource Units program. The system recalculates the resource units for a work center based on information in the Work Center Revisions program, the Shop Floor Calendar program, and the Job Shop Manufacturing Constants table (F3009). You can create versions to recalculate the labor, setup, or machine hours, and set the processing options to update different dates and branches.

The system multiplies the number of machines or employees by the work hours per day from the Work Center Revisions program. If the work hours per day are not available from the Work Center Revisions program, then the system uses the work hours per day from the Manufacturing Constants table that the system defines for each work day on the Shop Floor Calendar.

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

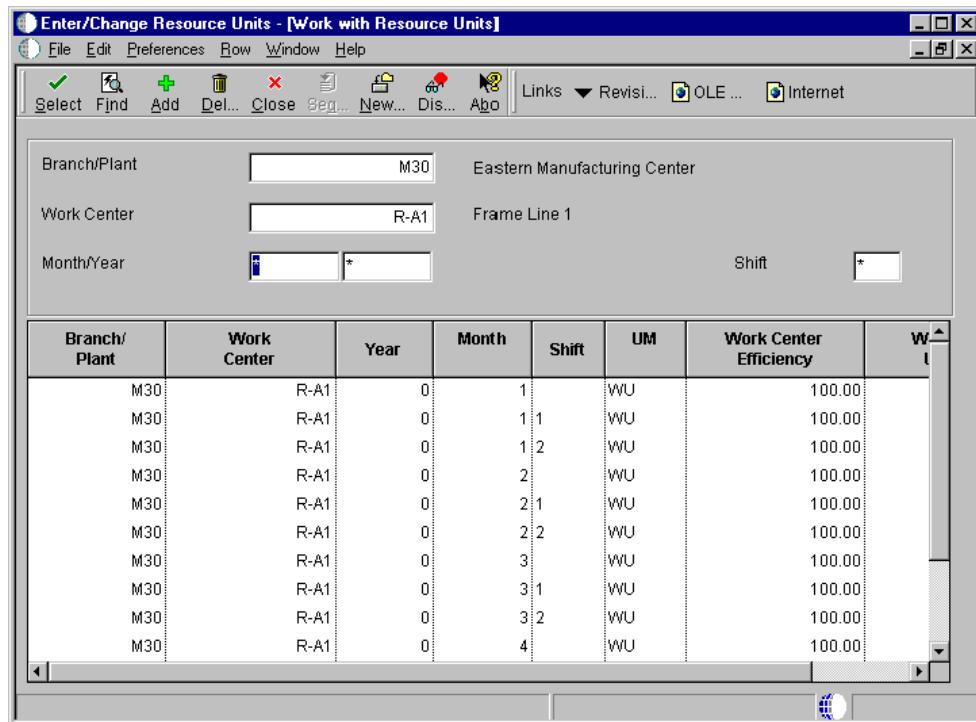
Before You Begin

- Define workdays for the branch or plant in the shop floor calendar.

► To set up resource units

From the Shop Floor Management Setup menu (G3141), choose Enter/Change Resource Units.

For each workday in the specified month, the Work with Resource Units form shows the work hours during which a work center is available.



1. On Work with Resource Units, complete the following fields:

- Branch/Plant
- Work Center
- Month
- Year

2. To specify a specific shift, complete the following field and click Find:

- Shift

3. Choose an appropriate branch/plant and click Select.

The screenshot shows the PeopleSoft Work Center Resource Unit Revision screen. At the top, there are navigation links for Portal, Home, Intranet, Training, and other system icons. The main title is "Active Foundation". The sub-title is "Work Center Resource Unit Revision". The screen includes a toolbar with Cancel, Form, Tools, and a red X button. The main area contains a calendar for January 2020. The days of the week are labeled Sunday through Saturday. For each day, there is a field for Efficiency and Utilization. Below the calendar is a table showing Total Resource Units for each day. The total for the month is 3,024.00.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Efficiency	Utilization
2	3	4	5	6	7	1	100.00	100.00
9	10	11	12	13	14	15		
16	17	18	19	20	21	22		
23	24	25	26	27	28	29		
30	31							

0	144	144	144	144	144	0	Total Resource Units
0	144	144	144	144	144	0	
0	144	144	144	144	144	0	
0	144	144	144	144	144	0	
0	144						3,024.00

4. On Work Center Resource Unit Revision, complete the following field for each day:
 - Total Resource Units
5. Complete the following optional fields:
 - Efficiency
 - Utilization
6. Click OK.
7. Review the following field:
 - Shift

Note

You cannot manually change the values if the value in the Shift field is blank. A blank value in the Shift field represents the sum of all shifts for a work center for a specific period of time.

8. Click OK.

See Also

- ❑ *Setting Up the Shop Floor Calendar*

- ❑ Generating Resource Units Automatically in the *Manufacturing and Distribution Planning* documentation for information about refreshing resource units for work centers

Processing Options for Work Center Resource Units (P3007)

Defaults

1. Enter the Default Unit of Measure for Work Center Resource Units. If left blank, HR will be used as the default Unit of Measure.

Unit of Measure as Input

Work Day Calender (P00071)

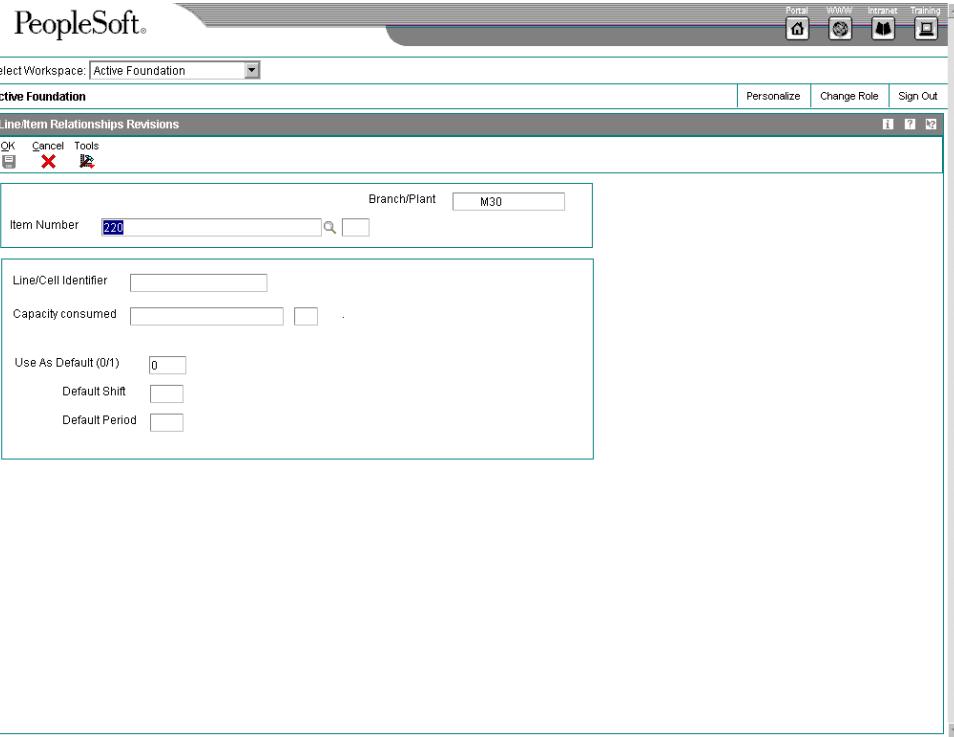
Setting Up Item-to-Line Relationships

The item-to-line relationships define the lines on which an item is produced and the amount of resources consumed by an item on each line. The Line/Item Relationships program allows you to add, change, and delete data stored in the Line/Item Relationship Master table. You can define work center operations inside a production line. Item-to-line relationships are only required if you use repetitive manufacturing.

► To set up item-to-line relationships

From the Shop Floor Management Setup menu (G3141), choose Line/Item Relationships.

1. On Work With Line/Item Relationships, complete the following fields and click Add:
 - Branch/Plant
 - Item Number



2. On Line/Item Relationships Revisions, complete the following fields and click OK:
- Line/Cell Identifier
 - Capacity consumed
 - Use As Default (0/1)
 - Default Shift
 - Default Period

Note

Planning uses the record that you identify as the default line when the system creates rates. The specifications for shift and period are only valid for the default line.

Work Orders and Rate Schedules

Work Orders and Rate Schedules

Work orders and rate schedules are requests to complete a given quantity of a specific item. After you specify the required information for the work order or rate schedule, you attach additional data to it, either manually or through batch processing.

Understanding Work Orders and Rate Schedules

A work order consists 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 that the quantity is required. The parts list and routing instructions specify the components, operations, and resources that are required to complete the work order.

For Process Manufacturing, the work order also includes a co-products and by-products list. This list identifies the products produced during the manufacturing process.

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 are used in repetitive manufacturing, in which you produce items in a continuous process on a dedicated production line. Like work orders, rate schedules consist of a header, parts list, and routing instructions. However, the rate header specifies not only the quantity of the item requested and the required date, but also specifies the production line.

Creating Work Orders or Rate Schedules

At a minimum, work orders and rate schedules consist of a header, a parts list, and routing instructions. You can create each in several different ways as follows; depending on the way your company does business, you might need different attachments to the work order header.

- Using Material Requirements Planning (MRP)
- Manually
- Using information from a Sales Order

You then attach the parts list, routing instructions, and co-products and by-products list, either manually or by using the Order Processing program (R31410). This batch program allows you to process multiple work orders or rate schedules, and includes:

- Updating the status of each work order or rate schedule
- Supplying the date to use for effectiveness checking
- Issuing inventory
- Printing shop paperwork
- Calculating standard costs for configured items
- Allowing substitute items to be used
- Creating a purchase order for an outside operation

Usually, you enter all of the work order or rate schedule headers and then attach the parts lists, routing instructions, and co-products and by-products (if applicable), to create the work order or rate schedule, using the Order Processing program. However, if you need to change a part on the parts list or specify substitutes, you must do so manually after you run the batch program.

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

Regardless of the method that you use to attach the parts list, routing instructions, and co-products and by-products (if applicable), you can define the unit of measure to use for backscheduling the work order or rate schedule. To do so, you use the processing options for both the Enter/Change Order and the Order Processing programs.

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

- Items completed
- Materials used
- Quantities scrapped
- Hours of machine and personnel time expended

You can report completions by operation to track work order or rate schedule 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.

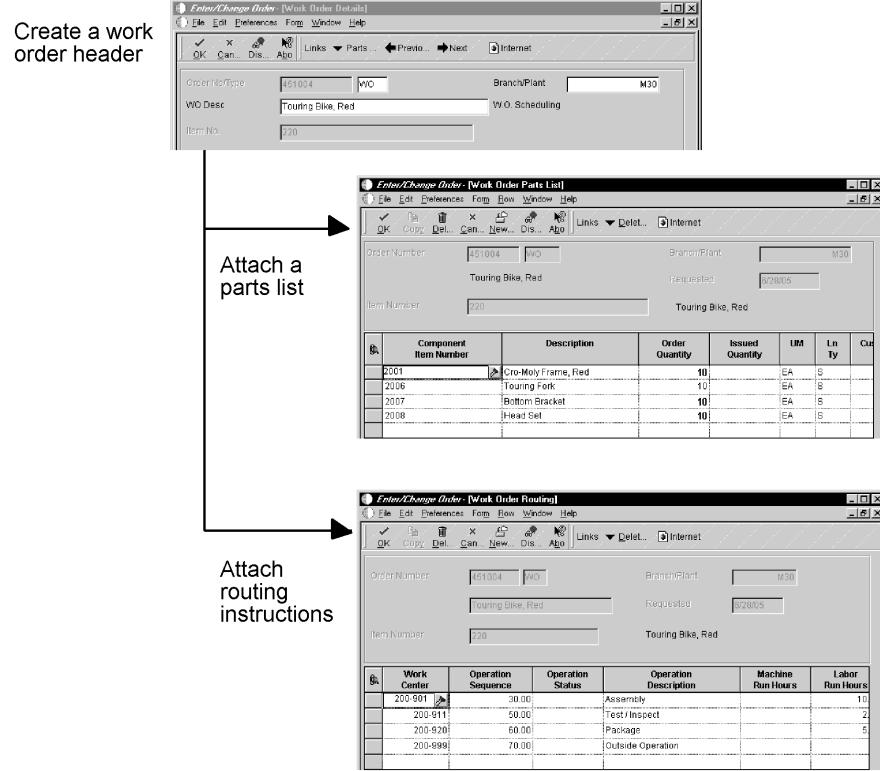
Note

If you use the Quality Management system, you can work with Quality Management test results in the following ways as you create a work order in the:

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

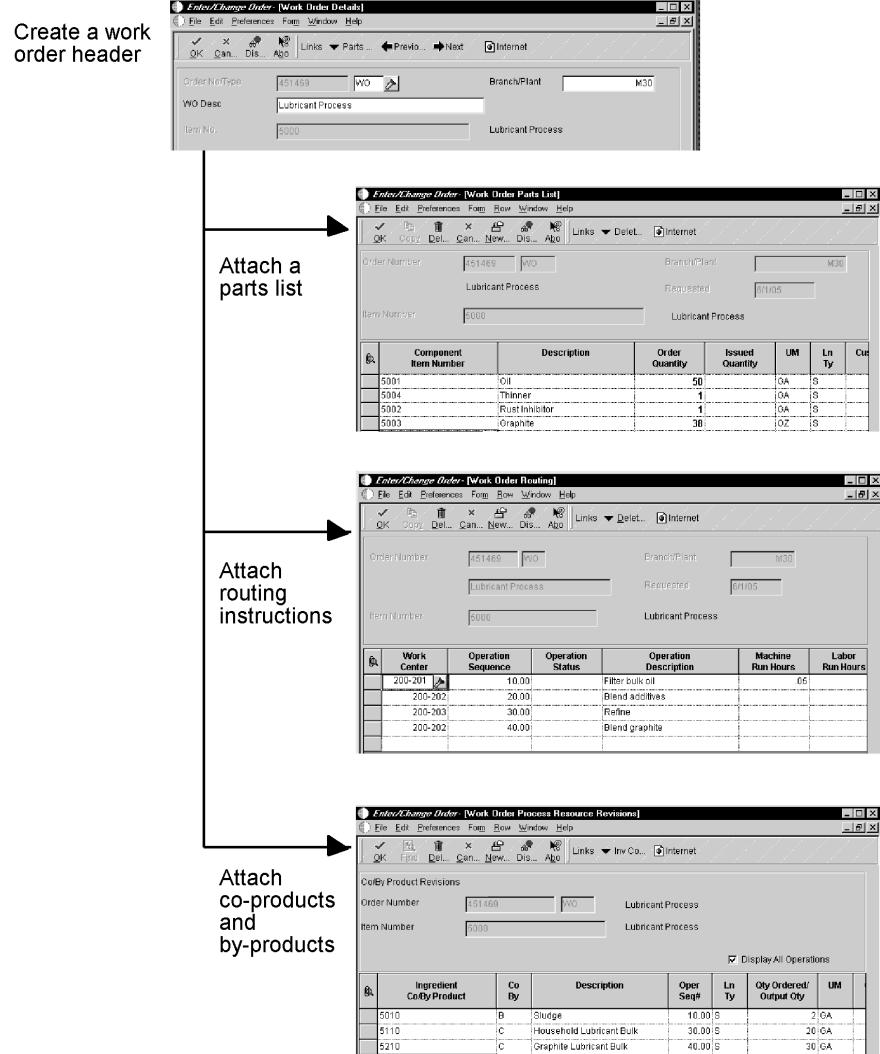
Discrete Manufacturing Structure

The following graphic illustrates the structure of work orders for different types of manufacturing:



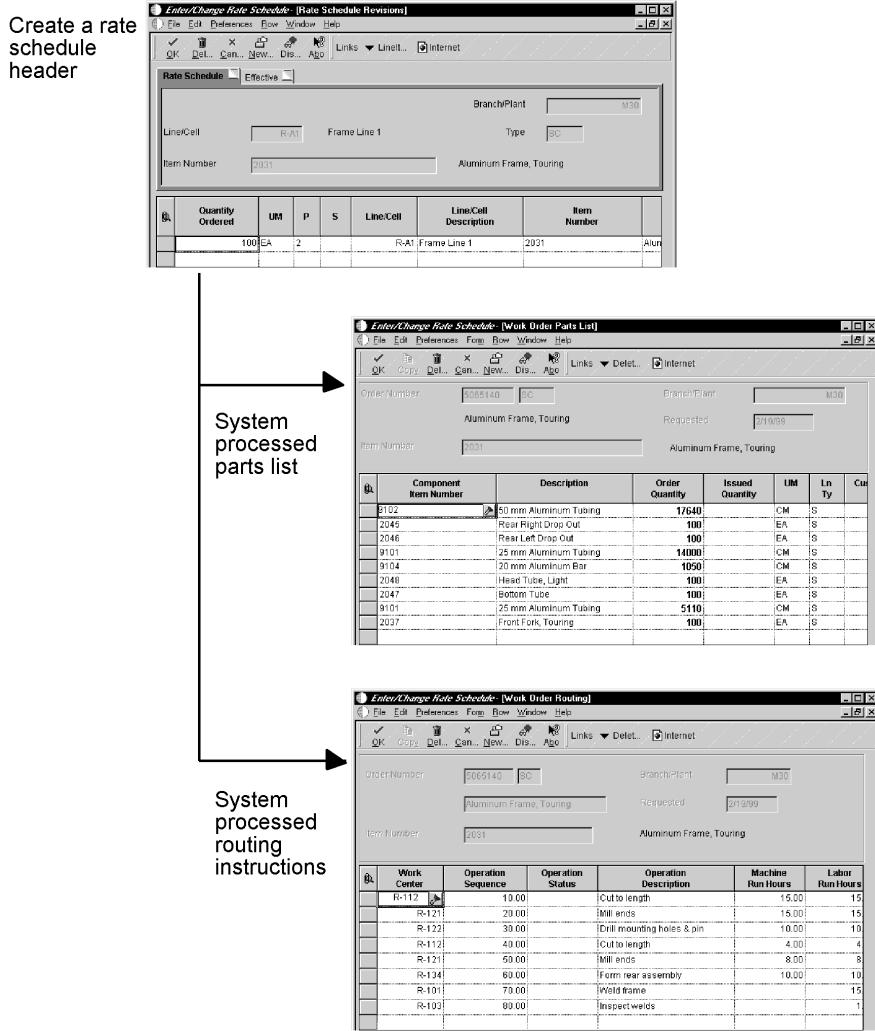
Process Manufacturing Structure

The following graphic illustrates the structure of work orders for different types of manufacturing:

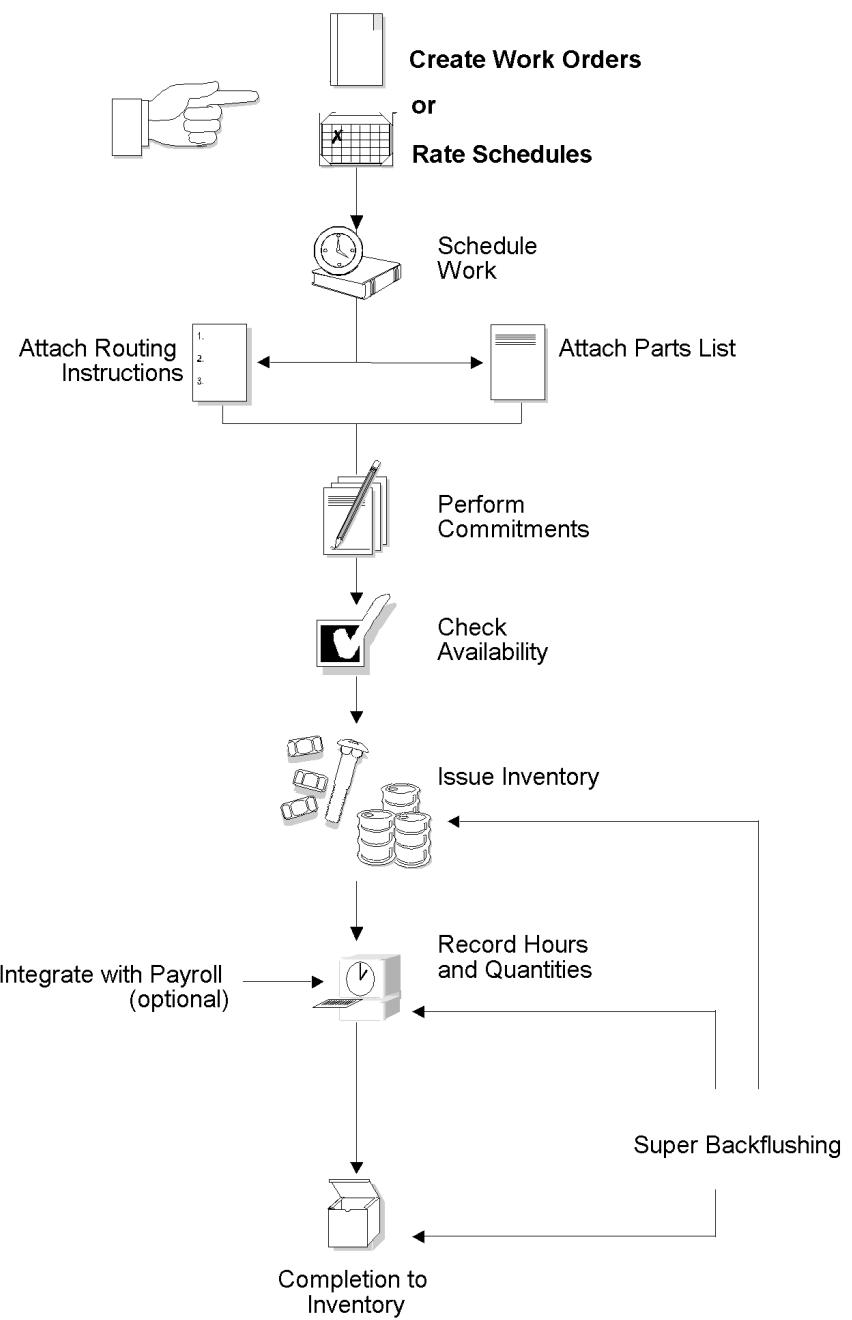


Repetitive Manufacturing Structure

The following graphic illustrates the structure of work orders for different types of manufacturing:



The following graphic illustrates the entire process of creating the work order header, attaching the paperwork, and integrating the order with your inventory and other systems. The hand shows at which point in the process you enter work order or rate schedule headers.



See Also

- [About Work Orders in Accounting in the Product Costing and Manufacturing Accounting documentation](#)

Attaching a Parts List

You attach the parts list after you enter a work order or rate schedule header. A parts list is a table of the components and their quantities required to complete the work order. You can attach the parts list using any of the following methods:

- Manually, using Enter/Change Order
- Automatically, after the routing instructions are attached manually (Enter/Change Order), by setting a processing option in Create Work Order Routings
- Automatically, using Order Processing

You attach a parts list using the Order Processing program (batch) the same way as you would attach a parts list manually (interactive). For batch bills and batch routings, the system determines which parts list to use by matching the quantity for the bill type specified on the work order header. (Use a batch bill to accommodate physical constraints, such as ovens or vats, in industries where products are produced in fixed quantities. Use batch routings in industries such as pharmaceuticals, foods, or petroleum, where products are manufactured in fixed quantities or batches.) If the system does not find a batch size that matches, it uses the following search sequence to locate a match:

- Searches for the specified bill type with a zero batch quantity
- Searches for a type M bill with the specified quantity
- Searches for a type M bill with a zero batch quantity

If no match is found, the system does not attach a parts list, and you must attach the parts list manually.

Based on their effective dates, components are included in or excluded from the parts list for a work order. The system increases the quantity of each component by its scrap factor and operation scrap, if applicable.

The following table defines the terms that are used throughout the examples of the work orders that follow:

Shrink The planned loss of a parent item caused by factors such as breakage, theft, deterioration, and evaporation.

Scrap Unusable material that results from the production process. Scrap is material outside of specifications and of such characteristics that rework is impractical.

Yield The ratio of usable output from a process to its input.

The following table illustrates several scenarios pertaining to shrink, scrap, and operational yield for the following components of parent item A. Each example is based on a quantity of 10 for Parent Item A.

	Parent Item A						
Component	B	C	D	E	F	G	
Quantity Per	(2)	(4)	(1)	(12)	(2)	(1)	
Operation	10	10	10	25	30		

Example 1: Work order with no shrink, scrap, or yield

The following example illustrates a work order with no shrink, scrap, or yield:

Example 1	Parent Item A					
Component	B	C	D	E	F	G
Quantity Per	20	40	10	120	20	10
Operation	10	10	10	10	25	30

Example 2: Work order with shrink

The following example illustrates a work order with 10 percent shrink on parent item A:

Example 2	Parent Item A					
Component	B	C	D	E	F	G
Quantity Per	22	44	11	132	22	11
Operation	10	10	10	10	25	30

Example 3: Work order with scrap

The following example illustrates a work order with 10 percent scrap on component G:

Example 3	Parent Item A					
Component	B	C	D	E	F	G
Quantity Per	20	40	10	120	20	11
Operation	10	10	10	10	25	30

Example 4: Work order with yield

The following example illustrates a work order with 95 percent yield at both operations 10 and 25:

Example 4	Parent Item A					
Component	B	C	D	E	F	G
Quantity Per	22	44	11	133	21	10
Operation	10	10	10	10	25	30

Example 5: Work order with shrink, scrap, and yield

The following example illustrates a work order with 10 percent shrink on parent item A, 10 percent scrap on component G, and 95 percent yield on both operations 10 and 25:

Example 5		Parent Item A					
Component	B	C	D	E	F	G	
Quantity Per	24	49	12	146	23	12	
Operation	10	10	10	10	25	30	

Phantom Items

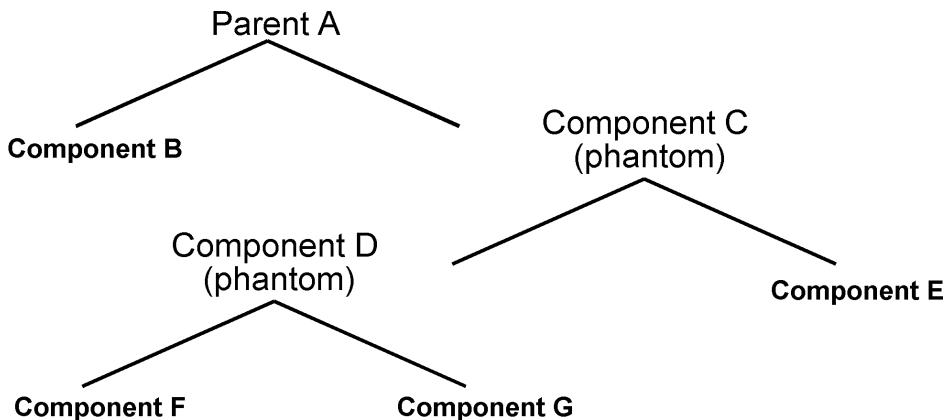
The Material Requirements Planning (MRP) system does not plan to produce phantom items, but will take their existence into account. The Shop Floor Management system includes lower-level components of phantom items when you attach a parts list. Phantom items are characterized by the following:

- They are not planned by MRP.
- They can be any lower-level component in the bill for a parent item.
- They can be used to define a subassembly within a parent item when the subassembly is not stocked in inventory or planned by MRP, but is consumed by the parent.

For Process Manufacturing, these items are intermediates, and can be any lower-level part or intermediate within the process for a co-product (parent item).

Requirements

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.

Note

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.

If sufficient inventory is not available to cover the parts list requirements for the work order, the system highlights the Quantity Ordered field on the parts list for the item that is in short supply.

The leadtime offset indicates the number of days that a part is needed before or after the start date of a manufacturing work order. The system adds the leadtime offset days for the part to the start date of the work order to determine the actual date that the part is required. To indicate how many days after the work order start date that the part is required, enter a positive number. To indicate that a part is needed prior to the work order start date, enter the days as a negative number. Examples of items that require negative leadtime offset days 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.

If you define a shrink factor on the Plant Manufacturing tab on the Additional System Info (Information) form for the item, the system increases the component requirements by the percentage to cover the loss and displays the increased order quantity in the Order with Shrink field. The system includes shrink adjustments, if applicable, when it calculates parts list quantities and routing instructions for the order.

See Also

- Leadtimes*

Attaching Routing Instructions

You attach the routing instructions after you enter a work order header. Routing instructions provide details about the operations and resources that are required to complete the quantity of items requested from the shop floor. You can attach the routing instructions using any of the following methods:

- Manually, using Enter/Change Order
- Automatically, after the parts list is attached manually (Enter/Change Order), by setting a processing option in Work Order Parts List
- Automatically, using Order Processing

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

Outside Operations

You might have steps on the routing instructions that are completed by outside operations. In this case, you need to identify those steps and run order processing in batch mode to create purchase orders for the steps. When you record the receipt through the Enter Receipts by PO program (P4312), the Routing Quantities and Status form automatically appears and allows you to update the routing quantities and status as necessary.

Enter Receipts by PO - [Work With Purchase Orders to Receive]

File Edit Preferences Form Row Window Help

Select Find Close Seg... New... Dis... Abo | Links Batch ... OLE ... Internet

Order Number	4834	*	*	Branch/Plant	*	
Item Number	*					
Account Number	*					
Receipt Document					Shipment Number	*
Previous Batch					<input type="checkbox"/> Display Supplier Item	

	Order Number	Or Ty	Order Co	Ord Suf	Line Number	2nd Item Number	Supplier	Quantity Open	Trans UOM	Amount Open
	4834	OP	00200	000	1.000	2001*OP10	4344	10	EA	50

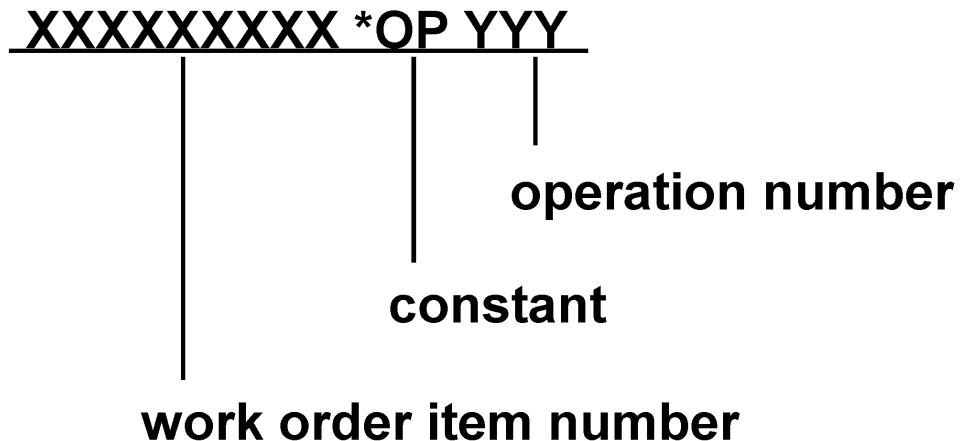
Enter Receipts by PO - [Routing Quantities and Status]

File Edit Preferences Form Window Help

OK Can... Dis... Abo | Links Produ... OLE ... Internet

Item	2001*OP10	Outside Operation - 2001				
Order Number	Ty	Op Seq	Qty's Completed	Qty's Scrapped	UM	Op St
452701	WO	10.00	10		EA	
Current Values					EA	

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.



XXXXXXX *OP YYY = work order item number + constant + operation number

You can then assign a unit cost to the item in the Work With Item Cost form. The unit cost will be added to the item cost of the total parent when you run Cost Rollup.

If you do not set up the outside operation as an item in the Item Master, the system uses the structure above to generate an item number for the operation, 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.

If the system cannot create a purchase order, it enters *NO PO in the Related Order field on the routing instructions. The system might not be able to create a purchase order for the following reasons:

- The system could not find an Item Master or Item Branch record for the parent item on the routing instructions 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.

Attaching Co-Products and By-Products

For Process Manufacturing, you attach co-products and by-products after you enter a work order header. Co-products and by-products identify the items that result from the process, whether they are planned or not.

You can use the following methods to attach co-products and by-products:

- Manually attach them
- Automatically attach them after the header is entered by setting a processing option in the Manufacturing Work Order Processing program (P48013)

- Automatically attach them from the MRP system by setting a processing option

Attaching Intermediates

Intermediates allow you to track the quantity of output of any operation in a work center at a specific time. You can define intermediates in different units of measure, by item, or by quantity. You can set up one intermediate per operation, but you cannot define an intermediate for the last operation. You can manually attach intermediates.

Fermented liquid is an example of an intermediate. The liquid ferments for an extended period of time before being distilled. The resulting liquid is not a finished product, but it proceeds to the next operation.

Calculating a Start Date

After you enter all required work order information on the Work Order Details form, the system calculates the start date for the work order. The system uses level leadtime or leadtime per unit for an item defined on the Plant Manufacturing tab on the Additional System Info (Information) form to calculate the start date of a work order or rate schedule based on the order's due date. The system calculates the start date using either the item's fixed leadtime or its variable leadtime.

See Also

- Leadtimes* for detailed information about leadtime

Fixed Leadtime

When an item on a work order or rate schedule has a fixed leadtime, the system determines the start date by using the level leadtime to backschedule.

For example, assume the following:

- Work order due date = 10/15/99
- Level leadtime = three days

The system has a start date of 10/12/99. The system then calculates the start date for the work order or rate schedule 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 either of the following conditions occur:

- The start date differs from the date of the first operation sequence on the item's routing instructions.
- The operation sequence dates could not be calculated using backscheduling.

Note

The system schedules work orders and rate schedules to be completed by the end of the day, the day before the work order or rate schedule is due.

See Also

- *Backscheduling a Work Order*

Variable Leadtime

If an item on the work order or rate schedule has a variable leadtime, the system determines the start date by using the leadtime per unit to backschedule. The system uses the following calculation:

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

For example, assume the following:

- Work order or rate schedule due date = 10/15/99
- Leadtime per unit = 32 hours
- Work order or rate schedule quantity = 1000
- Setup = 1 hour
- Queue = 9 hours
- Time Basis Code (TBC) = 4 (units/1000)
From the Item Branch table (F4102).
- Work hours per day = 8

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 10/13/99.

Backscheduling a Work Order

To meet the MRP required date for an order or schedule, the Shop Floor Management system assigns a completion date for the routing instructions 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 instructions for the work order or rate schedule. Assigning the start and requested dates for each operation is called backscheduling.

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

Work Center	Operation Sequence	Operation Status	Operation Description	Machine Run Hours	Labor Run Hours
200-901	10.00		Assembly		5.
200-901	20.00		Assembly		2.
200-901	30.00		Assembly		10.
200-901	40.00		Assembly		10.
200-911	50.00		Test/Inspect		2.
200-920	60.00		Package		5.

After you have defined your work order or rate schedule routing instructions, the system:

- Retrieves the resource units for the work center of the routing instructions 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 workday.

Generating Shop Paperwork

Shop paperwork consists of the following printouts:

- Work orders or rate schedules with or without the parts list or routing instructions information
- Shop packet summary
- Parts list shortages

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

Entering Work Order Headers

To enter a work order header, you identify the item, its branch/plant and quantity, and the requested date for the work order. You can also enter other optional information, 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, an error message appears. The system cannot calculate the start date for the work order if the requested date is in error.

If a scheduling problem exists on your work order, the system displays an error message. This message indicates that there is a difference between the work order start date and one or both of the following:

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

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

You might want to check the availability of the parts that are needed to complete a work order before you create the work order.

While entering a work order header, you can access other programs or windows as listed below:

Order Address Information	Use this form if you need to locate the address of the customer on the sales order related to your work order. Blank fields appear when no sales order is associated with your work order.
Work Order Details	Use this form to add detail to the work order description.
Attachments	Use this option to create a separate generic text entry for each work order. Notes provide more information and specific instructions for an order. Any modifications that you make to the text will not affect the text that was originally attached to the bill of material. You can also access user audit information by choosing Properties on the File menu to view user and date updates. By choosing Templates on the File menu, you can access the Work with Media Object Templates form to retrieve templates that you can use to create notes.

If you use other J.D. Edwards systems, the following integration features apply:

DRP/MPS/MRP integration	The Distribution Requirements Planning, Master Production Schedule, and Material Requirements Planning systems submit purchase and manufacturing orders that
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are required to maintain a valid production schedule.

Sales Order Management integration	You can generate work orders when you enter a sales order. The integration allows you to update sales information from within the Shop Floor Management System.
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Before You Begin

- Set 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.
- Enter the unit of measure in the processing options that you want the system to use for backscheduling the routing operations for the process.
- Set the processing options to initiate Warehouse Management system integration. See *About Warehouse Setup* in the *Advanced Warehouse Management* documentation for information about setting up Warehouse Management.
- Set up the shop floor calendar for the work days and months that the order activity will span, including leadtimes. See *Setting Up the Shop Floor Calendar*.
- Set up the document types that you use to identify different work order types in the User Defined Codes table (00/DT).
- Specify which work order types to use through the processing options of the Supply/Demand Inclusion Rules program, if the new document types are to be used in other J.D. Edwards Manufacturing systems.
- Set up valid work center locations. See *Setting Up Work Centers*.

► To enter work order headers

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

1. On Work With Manufacturing Work Orders, click Add.

The screenshot shows the PeopleSoft Work Order Details screen. At the top, there are buttons for OK, Cancel, Form, Tools, and a red X. The main area has tabs for Work Order Details, Status & Type, and Dates & Qty's. The Work Order Details tab is selected. It contains fields for Order No/Type (451004), WO Desc (Touring Bike, Red), Branch/Plant (M30), Item No. (220), Dates (Requested: 06/28/05, Planned Effective: 06/28/05, Start: 06/24/05, Work Order: 05/08/97, Completed:), and Quantities (OrderUOM: 2000 EA, SecondaryUOM:).

2. On Work Order Details, complete the following fields:
- 3.
4.
 - Branch/Plant
 - Item No.
 - Requested
 - Order/UOM
5. Complete the following optional field:
 - Start
6. Click the Status & Type tab, and then complete the following optional fields:
 - Sts Comm.
 - Bill Type
 - Rtg. Type
 - Status
 - Type

7. Click the Addl (Additional) Details 1 tab, and then complete the following optional fields:
 - Charge to CC
 - Parent WO
 - Lot/Serial
8. Click the Addl (Additional) Details 2 tab, and then complete the following optional fields:
 - SO Number
 - SO Type
 - SO Company
9. To add specific notes to your work order, click the Attachment tab.
10. Enter the information that you want to attach to the work order in the space provided.
11. On Work Order Details, click OK to add the work order header.

See Also

- Reviewing Part Availability* to check the availability of a part

Processing Options for Manufacturing Work Order Processing (P48013)

Defaults Tab

Use these processing options to specify the default values for the document type and unit of measure when back scheduling a work order.

1. Document Type

Use this processing option to specify the default document type associated with a work order. The Document type is a user defined code (00/DT) that identifies the origin and purpose of a document. Enter the document type to use as the default value or choose it from the Select User Defined Codes form.

2. Back Scheduling Unit of Measure

Use this processing option to specify the default unit of measure to use for back scheduling the work order. Unit of measure is a user defined code (00/UM) that identifies the unit of measure to use in the document. Enter the unit of measure to use as the default value or choose it from the Select User Define Codes form.

3. Back Scheduling Queue Hours

Use this processing option to specify the method that the system uses to backschedule queue hours in the work order routing. Valid values are:

- Blank The system backschedules queue hours as a percentage of the resource units per day.
- 1 The system backschedules queue hours as a percentage of the work hours per day.

Optional Defaults Tab

Use these processing options to specify the default values for the type, priority, beginning status, and the cross reference codes for the work order, and where the system retrieves the default value for the Charge to Business Unit.

1. Work Order Type

Use this processing option to specify the default work order type associated with the work order. Work order type is a user defined code (00/TY) that identifies the type of work order. Enter the work order type to use as the default value or choose it from the Select User Define Codes form.

2. Work Order Priority

Use this processing option to specify the default priority associated with the work order. Work order priority is a user defined code (00/PR) that identifies the priority of the document. Enter the work order priority to use as the default value or choose it from the Select User Define Codes form.

3. Beginning Status Code

Use this processing option to specify the default beginning status code on the work order header. The beginning status code is a user defined code (00/SS) that identifies the status of the work order to use when a work order is created. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

4. Charge to Business Unit

1=The program uses the project number.
Blank=The program uses the branch/plant.

Use this processing option to specify whether the system uses the Project Number in the Business Unit Master table (F0006) or the branch/plant on the work order as the Charge to Business Unit. Valid values are:

- 1 The system uses the project number.
- Blank The system uses the branch/plant.

5. Cross Reference Code

Use this processing option to specify the default cross reference code. The cross reference code is a user defined code (41/DT) that determines how the system retrieves item replacements for obsolete items. Enter the code to use as the default value or choose it from the Select User Define Codes form.

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

Sales Order Processing Tab

Use these processing options to specify the default values for the held, changed, canceled, and ending status codes for the work orders generated through sales orders.

1. Held Status Code

Use this processing option to specify a default status code for a held work order. Status code is a user defined code (00/SS) that identifies the status of the work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

2. Changed Status Code

Use this processing option to specify a default status code for a changed work order. Status code is a user defined code (00/SS) that identifies the status of the work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

3. Canceled Status Code

Use this processing option to specify a default status code for a canceled work order. Status code is a user defined code (00/SS) that identifies the

status of the work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

4. Cutoff Status Code

Use this processing option to specify a default status code for a completed work order for which sales order activity cannot be entered. Status code is a user defined code (00/SS) that identifies the status of the work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

Category Codes Tab

Use these processing options to specify the default category codes for the work order and the item/branch classification codes.

Work order category code is a user defined code (00/W1, W2, W3) that identifies the category for the work order. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

Item/branch category code is a user defined code (32/CC) that identifies the item/branch classification code on the work order header. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

1. Category Code 1

Use this processing option to specify the default category code for the work order. Work order category code is a user defined code (00/W1) that identifies the category for the work order. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

2. Category Code 2

Use this processing option to specify the default category code for the work order. Work order category code is a user defined code (00/W2) that identifies the category for the work order. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

3. Category Code 3

Use this processing option to specify the default category code for the work order. Work order category code is a user defined code (00/W3) that identifies the category for the work order. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

4. Category Code 1 on the work order header

Use this processing option to specify the default item/branch category code for the work order header. Item/branch category code is a user defined code (32/CC) that identifies the item/branch classification code on the work order header. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

5. Category Code 2 on the work order header

Use this processing option to specify the default item/branch category code for the work order header. Item/branch category code is a user defined code (32/CC) that identifies the item/branch classification code on the work order header. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

6. Category Code 3 on the work order header

Use this processing option to specify the default item/branch category code for the work order header. Item/branch category code is a user defined code (32/CC) that identifies the item/branch classification code on the work order header. Enter the category code to use as the default value or choose it from the Select User Define Codes form.

Validating Tab

Use these processing options to specify whether the system recalculates the parts list and routing instructions if quantities have changed, and whether to validate the parts list text against the item/branch record.

1. Quantities

1=The program recalculates the information.

Blank=The program does not recalculate the information.

Use this processing option to specify whether the system automatically recalculates the parts list and routing instructions if you changed the quantities on the work order. Valid values are:

1 The system recalculates the information.

Blank The system does not recalculate the information.

2. Item Branch/Plant Validation

1=Validates for existing Item/Branch record.

Blank=Does not validate for existing Item/Branch record.

Use this processing option to specify whether the system uses the item branch record to validate new work orders and updates to existing work orders. Valid values are:

Blank

Do not use the existing item branch record for validation.

1

Use the existing item branch record for validation.

Hold Codes Tab

Use these processing options to specify the related sales order and purchase order hold codes the system uses if the work order quantity or date changes.

Hold code is a user defined code (42/HC) that identifies whether the work order is being held. Enter the hold code to use as the default value or choose it from the Select User Define Codes form.

1. Sales Order

Use this processing option to specify the default sales order to use. Hold code is a user defined code (42/HC) that identifies whether the sales order is being held. Enter the hold code to use as the default value or choose it from the Select User Define Codes form.

2. Purchase Order

Use this processing option to specify the default purchase order to use. Hold code is a user defined code (42/HC) that identifies whether the purchase order is being held. Enter the hold code to use as the default value or choose it from the Select User Define Codes form.

Display Options Tab

Use these processing options to specify whether the system displays the Bill of Material Type and Routing Type fields if your work orders are not manufacturing work orders. Work orders are manufacturing work orders if M is the value in the bill of material type and routing type fields.

1. Bill of Material Field

1=The program displays the field.

Blank=The program does not display the field.

Use this processing option to specify whether the system displays the Bill of Material Type field on the Work Order Details form. Valid values are:

1 The system displays the Bill of Material Type field.

Blank The system does not display the Bill of Material Type field.

2. Routing Type Field

1=The program displays the field.

Blank=The program does not display the field.

Use this processing option to specify whether the system displays the Routing Type field on the Work Order Details form. Valid values are:

1 The system displays the Routing Type field.

Blank The system does not display the Routing Type field.

Versions Tab

Use these processing options to specify the versions of the following programs that the system uses in the work order creation process:

- Bill Availability
- ECO Work Order Entry
- Assign Serial Numbers
- Routings
- Parts List
- Material Issues

Versions control how the programs display information. Therefore, you might need to set the processing options to specific versions to meet your needs.

If you leave these fields blank, the system uses the ZJDE0001 versions of these programs.

1. Bill Availability (P30200)

Use this processing option to specify the version that the system uses when you choose the row exit to the Bill Availability program (P30205) from the Work With Manufacturing Work Orders form or the Work Order Details form. If you leave this processing option blank, the system uses the ZJDE0001 version of the Bill Availability program.

Versions control how the Bill Availability program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

2. ECO Work Order Entry (P48020)

Use this processing option to specify the version that the system uses when you choose the row exit to the ECO Work Order Entry program (P48020) from the Work With Manufacturing Work Orders form or the Work Order Details form. If you leave this processing option blank, the system uses the ZJDE0001 version of the ECO Work Order Entry program.

Versions control how the ECO Work Order Entry program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

3. Assign Serial Numbers (P3105)

Use this processing option to specify the version that the system uses when you choose the row exit to the Assign Serial Numbers program (P3105) from the Work With Manufacturing Work Orders form or the Work Order Details form. If

you leave this processing option blank, the system uses the ZJDE0001 version of the Assign Serial Numbers program.

Versions control how the Assign Serial Numbers program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

4. Routings (P3112)

Use this processing option to specify the version that the system uses when you choose the row exit to the Routings program (P3112) from the Work With Manufacturing Work Orders form or the Work Order Details form. If you leave this processing option blank, the system uses the ZJDE0001 version of the Routing program.

Versions control how the Routings program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

5. Parts List (P3111)

Use this processing option to specify the version that the system uses when you choose the row exit to the Parts List program (P3111) from the Work With Manufacturing Work Orders form or the Work Order Details form. If you leave this processing option blank, the system uses the ZJDE0001 version of the Parts List program.

Versions control how the Parts List program displays information. Therefore, you might need to specify the processing options to specific versions to meet your needs.

6. Material Issues (P31113)

Use this processing option to specify the version that the system uses when you take a row exit to the Work Order Inventory Issues (P31113) from the Work With Manufacturing Work Orders form. If you leave this processing option blank, the system uses the ZJDE0001 version of the Work Order Inventory Issues program.

Processing Manufacturing Tab

Use this processing option to specify whether the system automatically creates co-products and by-products.

1. Co- and By-Products

1=The program creates co- and by-products.

Blank=The program does not create co- and by-products.

Use this processing option to specify whether the system automatically copies and attaches co-products and by-products from the Bill of Materials. Valid values are:

1 The system copies and attaches co-products and by-products from the Bill of Material.

Blank The system does not copy and attach co-products and by-products from the Bill of Material.

Interoperability Tab

Use this processing option to specify the transaction type that the system uses for export processing.

1. Transaction Type

Use this processing option to specify the transaction type that the system uses for export processing. Transaction type is a user defined code (00/TT) that identifies the type of transaction for the work order. Enter the transaction type to use as the default value or choose it from the Select User Define Codes form. If you leave this field blank, the system does not use export processing.

Entering Rate Schedules

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, a parts list, and routing instructions. The rate schedule 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 the following:

- Line against the Line/Item Relationship Master
- Dates against the appropriate shop floor calendar
- Effective date ranges against the defined period

To increase plant capacity, manufacturers run production lines for more than one shift, as well as run different lines or 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. You can then identify all shifts for the production line by work center, if necessary. After you set up the shift, use the following shop floor calendars to schedule production accordingly:

- Line Scheduling Workbench
- Sequencing Workbench

Before you enter a rate, you can create a relationship between a line and an item when you use the Line/Item Relationships program (P31093).

Before You Begin

- ❑ Set up the processing options to automatically attach the parts list and routing instructions when you enter a rate schedule.

► To enter rate schedules

From the Daily Processing - Repetitive menu (G3115), choose Enter/Change Rate Schedule.

1. On Work With Rate Schedules, complete the following fields:

- Branch/Plant
- Item Number
- Effective From Date
- Thru Date

2. Click Add.

3. On Rate Schedule Revisions, click the Rate Schedule tab and complete the following fields:
 - Quantity Ordered
 - Line/Cell
4. Complete the following optional fields and click OK:

- P
- S
- Rate Status
- Category 1
- Category 2
- Category 3
- Bill Type
- Routing Type
- Freeze Code

Depending on how you set the Process processing option, the system can process the rate schedules to attach the parts list and routing instructions automatically as you exit the row, attach the parts list and routing instructions by submitting a batch process, or not attach the parts list and routing instructions. See *Processing Work Orders and Rate Schedules* for more information.

See Also

- Attaching Supplementary Information* for information about interactively attaching the parts list and routing instructions
- Setting Up the Shop Floor Calendar* for information about setting up production lines and shifts
- Setting Up Item to Line Relationships* for information about creating relationships between lines and items

Processing Options for Enter/Change Rate Schedule (P3109)

Defaults

1. Enter the Rate Type. (Default is 'SC')
2. Enter the Unit of Measure to use for Scheduling.
3. Enter the Number of days to add to today's date for the Thru Date. (Optional)

Opt Defaults

1. Enter the From Status.
2. Enter the Thru Status.
3. Enter the Beginning Status to use when creating a new rate. (NOTE: This status will not be used if parts list and routing are created in batch. In this case, the status in R31410 will be used)

4. Enter the status code beyond which the rate is considered closed. (Default is '99')
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.

Display

1. Enter a '1' to only display open schedules.

Categories

Enter the Default for the following:

1. Category Code 1 (optional)
2. Category Code 2 (optional)
3. Category Code 3 (optional)

Or, enter the Item Branch Class Code fields from which to retrieve values:

4. Category Code 1 (optional)

5. Category Code 2 (optional)

6. Category Code 3 (optional)

Process

1. Enter a '1' to attach a Parts List and Routing interactively; Enter a '2' to submit to batch. If left blank, Parts List and Routing will not be attached.

Edits

1. Enter a '1' if this program should update the Parts List and Routing when the Rate quantities or dates are changed. If left blank, no recalculation will be performed.

2. Enter a '1' to validate for existing Branch/Item records.

Versions

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

1. Completions Workbench (P3119).

2. MPS/MRP/DRP Time Series (P3413).

3. Bill Availability (P30200).

4. Assign Serial Numbers (P3105).

5. Lot Master Revisions (P4108).

6. Bill of Materials Revisions (P3002).

7. Bill of Materials Inquiry (P30200).

8. Line Scheduling Workbench (P3153).

9. Supply/Demand Inquiry (P4021).

10. Order Processing (R31410). If left blank, XJDE0008 will be used.

11. Parts List (P3111).

12. Routing (P3112).

Hold Codes

1. Enter the Hold Code to be updated to the related purchase order if the rate quantity or date changes. If left blank, the purchase order will not be updated. (NOTE: The purchase order will be updated only if the rate routings are to be recalculated)

Interop

1. Enter the Transaction Type for the export transaction. If left blank, export processing will not be performed.

2. Enter a '1' to write the before image for a change transaction. If left blank, the before image will not be written.

Processing Work Orders and Rate Schedules

After you enter a work order header, you can use the Order Processing batch program to attach the parts list and routing instructions for each work order or rate schedule header. If you attach the parts list and routing instructions manually, you use the Order Processing batch program to generate and print the shop paperwork.

The Order Processing program's processing options allow you to perform a wide range of other functions. You can do the following:

- Generate a parts list, routing instructions, a co-products and by-products list (if applicable), or all three
- Indicate the date to use for effectiveness checking
- Change the status code of the work orders or rate schedules that are being processed
- Print various information about the work order or rate schedule, such as the routing, parts list, sales order text, and so forth
- Print a shop packet summary that lists processed work orders and rate schedules
- Enter the unit of measure for backscheduling
- Issue inventory automatically
- Generate a shortage report for the work orders and rate schedules

- Indicate which versions of associated programs that 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 that use bar code capabilities when printing the pick list or the exception report

You can organize and separate these functions to accomplish different tasks by setting up several reporting versions, each with different data selections and processing option values. 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 another version to perform batch inventory issues.

If you use other J.D. Edwards systems, the following integration features apply:

Configured items integration Use Order Processing to process assembly inclusion rules and generate a parts list and routing instructions, if the parts list and routing instructions do not already exist. Use rule type Q for components that the system will write only to the Work Order Parts List table (F3111). The system uses the Issue Type Code and Operations Sequence fields from the Assembly Inclusions Rules table (F3293) in this processing. Use rule type P to do the following:

- Print components as separate line items on the sales order
- 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 Work Order Parts List table (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.

Quality Management integration

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

Sales Order Management integration

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. The system then 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 processing options in the Order Processing program. This line type must be set up as text to avoid writing journal entries for cost of goods sold and inventory for the components when you update the sales order. This line type also ensures that the system does not subtract components from on-hand quantity in inventory again during shipment confirmation or sales update.

Warehouse Management integration

If you use Warehouse Management, when you 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 on-hand quantity for the To location and decreases the quantity on hand for the From location.

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

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 *About Warehouse Setup* in the *Advanced Warehouse Management* documentation for information about setting up Warehouse Management.

Running Order Processing

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

When you run Order Processing, the system creates the planned variance in the Work Order Variance Tag table (F3102T). The variance shows the difference in costs from when the standards were set at the beginning of the accounting period.

When you run Order Processing, the system deletes any previously generated or manually entered parts list that is attached to the work order or rate schedule. You can manually revise the system-generated parts list. If you add parts to the list, the system commits them from the primary location defined in the Item Branch program (P41026).

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

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

Use a processing option to update the routing instructions if you change the work order or rate schedule. The system recalculates the run labor and run machine hours based on the quantity ordered on the work order or rate schedule.

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

To automatically issue material to a work order when you run Order Processing, set the processing option for Batch Inventory Issues to call a version of the Automatic Work Order Inventory Issues program R31420. You can set this program to either issue only items identified as preflush or preflush all items. You cannot access this program (R31420) from a menu.

Use a processing option to print a consolidated parts list that provides you with a means to pick inventory needed for the manufacturing process. You may process many work orders or rate schedule in a single run. The items are consolidated based on item name, location, lot, unit of measure, and branch/plant. The system prints information for each branch/plant 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.

When you run Order Processing the system generates an exception report for the following conditions:

- The system previously created pick requests but did not regenerate a parts list.
- The system did not create a pick request because "Warehouse Control" was not set to Y.

Processing Options for Order Processing (R31410)

Process Tab

Use these processing options to specify whether the system does the following:

- Generates a parts list and routing instructions
- Updates the parts list and routing instructions if quantities or dates have changed

Note the following information regarding the generation of the parts list and routing instructions:

- When you run a generation, the system deletes any previously generated or manually entered parts list or routing 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. 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 parts list to prevent duplication of component quantities. However, if quantities or dates have changed and you want this program to update the parts list, use the Update Parts List and Routing Instructions processing option.
- You should not regenerate the routing instructions for the work order if hours and quantities are recorded against any of its operations. When you run this generation, 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. However, if quantities or dates have changed and you want this program to update the routing instructions, use the Update Parts List and Routing Instructions processing option.

1. Generate Parts List and Routing Instructions

1 = Parts list only

2 = Routing instructions only

3 = Both parts list and routing instructions

Blank = Do not generate a parts list or routing instructions

Use this processing option to specify whether the system generates a parts list, routing instructions, or both when you process a work order. Valid values are:

- 1 The system generates a parts list only.
- 2 The system generates routing instructions only.
- 3 The system generates both a parts list and routing instructions.

Blank The system does not generate a parts list or routing instructions.

Please refer to the Work Orders tab help for detailed information about the parts list and routing instructions generation.

2. Update Parts List and Routing Instructions

1 = Update the existing parts list and routing instructions.

Blank = Do not update the existing parts list or routing.

Use this processing option to specify whether the system updates an existing parts list and routing instructions if the work order quantity or dates have changed. Valid values are:

- 1 The system updates the existing parts list and routing instructions.

Blank The system does not update the existing parts list or routing.

Defaults Tab

Use these processing options to specify whether the system uses a specified date or the work order start date for effectivity checking and to specify the default header status code to use.

1. Work Order Date

Use this processing option to specify the default work order date for effectivity checking. If you leave this field blank, the system uses the work order start date.

2. Header Status Code

Use this processing option to specify the default status code for the work order header. Document type is a user defined code (00/SS) that identifies the status of the work order. Enter the document type to use as the default value or choose it from the Select User Define Codes form. If you leave this field blank, the system does not change the status on the work order header.

Parts List Tab

Use these processing options to specify whether the system does the following:

- Uses substitute items when there is a shortage
 - Uses prior revision levels to build the parts list against
 - Preflushes issues only or issues all items
 - Uses commitment processing as specified on the Manufacturing Constants form
-

1. Substitutions

1 = Substitution processing performed

Blank = Substitution processing not performed.

Use this processing option to specify whether the system uses bill of material substitutes when there is a shortage. Valid values are:

1 The system uses substitutions.

Blank The system does not use substitutions.

2. Prior Revision Level

1 = Prior revision level used

Blank = Prior revision level not used

Use this processing option to specify whether the system builds the parts list

against a prior revision level. Valid values are:

1 The system uses prior revision levels.

Blank The system does not use prior revision levels.

3. Preflush Items

1 = Material issued for all items

Blank = Material issued only for preflushed items

Use this processing option to specify whether the system issues all items on

the work order. Valid values are:

1 The system issues all items.

Blank The system issues only preflushed items.

If you choose to issue all items, the system only issues material if you
specify the version of the Inventory Issues program (P31113) in the Inventory
Issues processing option under the Versions tab.

4. Commitment Processing Bypass

1 = Commitment processing not performed

Blank = Commitment processing performed per commitment control

Use this processing option to specify whether the system bypasses commitment

processing when it creates the parts list. Valid values are:

1 The system does not use commitment processing.

Blank The system uses commitment control.

You specify commitment processing in the Commitment Control field in the

Manufacturing Constants program (P3009).

5. Batch Bill of Material Processing

1 = Bypass batch bill processing

Blank = Perform batch bill processing

Use this processing option to determine whether the system uses batch bill processing. In batch bill processing, the system searches for a bill of material that matches the work order quantity. If a matching bill of material is not found, the system uses the zero bill of material to extend the required components. Valid values are:

Blank The system uses batch bill processing.

1 The system does not use batch bill processing.

6. Parts List Text

1 = Copy the component's generic text

Blank = Do not copy the component's generic text

Use this processing option to determine whether or not the system copies a component's generic text to a parts list.

1 The system copies a component's generic text to the parts list.

Blank The system does not copy a component's generic text to a parts list.

Routing Tab

Use these processing options to specify the default values that the system uses for the unit of measure, document type, line type, and beginning status, and whether to enter the work order number into the purchasing journal entries, if applicable.

1. Unit of Measure

Use this processing option to specify the default unit of measure to use for back scheduling on the routing instructions. Unit of measure is a user defined code (00/UM) that identifies the unit of measure to use in the document. Enter the unit of measure to use as the default value or choose it from the Select User Define Codes form.

2. Document Type

Use this processing option to specify the default document type associated with the purchase order for a subcontract routing. Document type is a user defined code (00/DT) that identifies the origin and purpose of the document. Enter the document type to use as the default value or choose it from the Select User Define Codes form.

3. Line Type

Use this processing option to specify the default line type associated with the purchase order for a subcontract routing. Enter the line type to use as the default value or choose it from the Line Type Search form.

4. Beginning Status

Use this processing option to specify the default beginning status associated with the purchase order for a subcontract routing. Beginning status is a user defined code (40/AT) that identifies the beginning status of the document. Enter the beginning status to use as the default value or choose it from the Select User Define Codes form.

5. Subledger Field

1 = Work order number entered into the subledger field of the purchasing journal entries

Blank = Work order number not used.

Use this processing option to specify whether the system enters the work order number into the Subledger field of the purchase order. Valid values are:

1 The system enters the work order number.

Blank The system does not enter the work order number.

6. Batch Routing Processing

1 = Bypass batch routing processing

Blank = Perform batch routing processing

Use this processing option to determine whether to use batch routing processing. In batch routing processing, the logic searches for a routing that matches the work order quantity. If no match is found, the system uses the zero routing to extend the required hours. Valid values are:

1 The system does not look for a batch routing.

Blank The system will look for a batch routing.

7. Routing Text

1 = Copy the operation's generic text

Blank = Do not copy the operation's generic text

Use this processing option to determine whether the system copies an operation's generic text to a routing.

Blank The system does not copy the operation's generic text to a routing.

1 The system copies the operation's generic text to a routing.

Sales/Configurator Tab

Use these processing options to specify the default values that the system uses for the line type and next status for kit components on sales orders, and whether to calculate the cost in the variance table of the sales order.

1. Line Type

Use this processing option to specify the default line type associated with the sales order for kit components. Enter the line type to use as the default value or choose it from the Line Type Search form.

2. Next Status

Use this processing option to specify the default next status associated with the sales order. Next status is a user defined code (40/AT) that identifies the next status for the kit component lines on the sales order. Enter the next status to use as the default value or choose it from the Select User Define Codes form.

3. Standard Cost Calculation

1 = Calculate standard cost

2 = Calculate standard cost only if it has not already been calculated

Blank = Do not calculate standard cost

Use this processing option to specify how the system calculates the cost from the configured routings in the variance table. Valid values are:

- 1 The system calculates the standard cost.
- 2 The system calculates the standard cost if it has not already been calculated.

Blank The system does not calculate the cost.

Printing 1 Tab

Use these processing options to specify whether the system prints the work orders, and if so, what associated information is also printed.

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

1. Work Orders

1 = Print work orders

Blank = Do not print work orders or any associated information

Use this processing option to specify whether the system prints the work orders. You cannot print associated information described in the remaining processing options on the Printing tab if you do not choose to print the work orders using this processing option. Valid values are:

1 The system prints the work orders.

Blank The system does not print the work orders or any associated information.

You must choose to print work orders if you want to print information on parts lists and routing instructions, the shop packet summary, or sales order text lines.

2. Parts Lists

1 = Print parts list

Blank = Do not perform any parts list print processing

If you choose the Work Orders processing option to print work orders (Printing 1 tab), use this processing option to specify whether the system prints the associated parts lists. Valid values are:

1 The system prints the parts lists.

Blank The system does not print the parts lists.

3. Parts List Detail

1 = Print detail information

Blank = Do not print detail information

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Parts List processing option to print the parts list (Printing 1 tab), use this processing option to specify whether the system prints the second line of information on the parts lists. Valid values are:

- 1 The system prints the parts list detail.
- Blank The system does not print the parts list detail.

4. Parts List on Separate Pages

1 = Print each parts list on a new page

Blank = Print parts list on work order header page

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Parts List processing option to print the parts list (Printing 1 tab), use this processing option to specify whether the system prints each parts list on a new page. Valid values are:

- 1 The system prints each parts list on a new page.
- Blank The system does not print each parts list on a new page.

5. Consolidated Parts List (FUTURE)

1 = Consolidate the parts list

Blank = Do not consolidate the parts list

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Parts List processing option to print the parts list (Printing 1 tab), use this processing option to specify whether the system prints a consolidated parts list. 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. Valid values are:

- 1 The system consolidates the parts list.
- Blank The system does not consolidate the parts list.

6. Parts List Component Text

1 = Print component (generic) text

Blank = Do not print component text

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Parts List processing option to print the parts list (Printing 1 tab), use this processing option to specify whether the system prints the component text on the parts lists. Valid values are:

- 1 The system prints component text.
- Blank The system does not print component text.

Printing 2 Tab

Use these processing options to specify whether the system prints the work orders, and if so, what associated information is also printed.

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

1. Routing Instructions

1 = Print routing instructions

Blank = Do not perform any routing instructions print processing

If you choose the Work Orders processing option to print work orders (Printing 1 tab), use this processing option to specify whether the system prints the associated routing instructions. Valid values are:

1 The system prints the routing instructions.

Blank The system does not print the routing instructions.

2. Routing Instructions on Separate Pages

1 = Print routing instructions on a new page

Blank = Do not print routing instruction on new page

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Routing Instructions processing option to print routing instructions (Printing 2 tab), use this processing option to specify whether the system prints each routing instruction on a new page. Valid values are:

1 The system prints each routing instruction on a new page.

Blank The system does not print each routing instruction on a new page.

3. Routing Instructions Text

1 = Print routing instructions (generic) text

Blank = Do not print routing instructions text

If you choose the Work Orders processing option to print work orders (Printing 1 tab) and the Routing Instructions processing option to print routing instructions (Printing 2 tab), use this processing option to specify whether the system prints the text on the routing instructions. Valid values are:

1 The system prints the text.

Blank The system does not print the text.

4. Shop Packet Summary

1 = Print shop packet summary

Blank = Do not print summary

If you choose the Work Orders processing option to print work orders (Printing 1 tab), use this processing option to specify whether the system prints the shop packet summary. Valid values are:

1 The system prints the summary.

Blank The system does not print the summary.

5. Sales Order Text Lines

1 = Print sales order text lines

Blank = Do not print sales order text

If you choose the Work Orders processing option to print work orders (Printing 1 tab), use this processing option to specify whether the system prints the sales order text lines. Valid values are:

1 The system prints the text.

Blank The system does not print the text.

Warehouse Management Tab

Use these processing options to specify how the system processes putaway requests for Warehouse Management integration, and to specify the default staging location and whether the system should check for availability.

1. Pick Requests

1 = Generate request only

2 = Generate request and process using subsystem

Blank = No request processed

Use this processing option to specify the directed putaway mode for the system to use. Valid values are:

- 1 The system processes putaway requests only.
 - 2 The system processes putaway requests by using the subsystem.
- Blank The system does not process putaway requests.

If you specify mode 2, enter the version of the subsystem for the system to use in the Location Driver Processing processing option (below).

2. Location Driver Processing Version (R46171)

If you choose directed putaway mode 2 for the Putaway Requests processing option (above), use this processing option to specify the version of the Location Driver Processing program (R46171) for the system to use when processing putaway requests. If you leave this field blank, the system uses the XJDE0007 version of the Location Driver Processing program.

Versions control how the Location Driver Processing program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

3. Staging Location

Use this processing option to specify 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. Enter the staging location to use as the default value or choose it from the Item/Branch Locations form.

4. Staging Location Availability

1 = Check staging location for availability

Blank = Does not check for availability

Use this processing option to specify whether the system checks the staging location for availability. If a part is not available at the staging location, the system does not generate a request. This option only applies to parts without work center locations. Valid values are:

1 The system checks the staging location for available parts.

Blank The system does not check for availability.

Versions Tab

Use these processing options to specify the versions of the following reports and programs that the system uses when processing work orders:

- Work Order Print report
- Shortage report
- Bar Coding report
- Inventory Issues program
- Purchase Order Entry program
- Manufacturing Specifications program

Versions control how the programs display information. Therefore, you might need to set the processing options to specific versions to meet your needs.

1. Work Order Print (R31415)

Use this processing option to specify the version of the Work Order Print report (R31415) that the system uses. The default sequencing for the parts list is by component item number. The default sequencing for the routing instructions is by operation sequence number. If you leave this field blank, the program uses the ZJDE0001 version of the Work Order Print report. Versions control how the Work Order Print report displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

2. Shortage Report (R31418)

Use this processing option to specify the version of the Shortage report (R31418) that the system uses. If you leave this field blank, the system does not generate this report. Versions control how the Shortage report displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

3. Bar Coding Report (R31413)

Use this processing option to specify the version of the Bar Coding report (R31413) that the system uses. If you leave this field blank, the system uses the ZJDE0001 version of the Bar Coding report. Versions control how the Bar Coding report displays information. Therefore, you might need to set the processing options to specific versions to meet your

needs.

4. Inventory Issues (P31113)

Use this processing option to specify the version of the Inventory Issues program (P31113) that the system uses. If you leave this field blank, the system does not issue any material.

Versions control how the Inventory Issues program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

5. Purchase Order Entry (P4310)

Use this processing option to specify the version of the Purchase Order Entry program (P4310) that the system uses when generating purchase orders. The default tax area and automatic blanket order release options are controlled by the Purchase Order Entry version that you specify.

Versions control how the Purchase Order Entry program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

6. Manufacturing Specifications (R37470)

Use this processing option to specify the version of the Manufacturing Specifications program (P37470) that the system uses. If you leave this field blank, the system uses the ZJDE0001 version of the Manufacturing Specifications program.

Versions control how the Manufacturing Specifications program (P370470) displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

Interoperability Tab

Use these processing options to specify the default transaction type that the system uses for processing export transactions, and to specify whether the system writes the before images to the Work Order Master table (F4801) and Work Order Parts List table (F3111).

1. Work Order Transaction Type

Use this processing option to specify the default transaction type for the work order header that the system uses when processing export transactions. If you leave this field blank, the system does not perform export processing.

2. Parts List Transaction Type

Use this processing option to specify the default transaction type for the parts list that the system uses when processing export transactions. If you leave this field blank, the system does not perform export processing.

3. Routing Instructions Transaction Type

Use this processing option to specify the default transaction type for the routing instructions that the system uses when processing export transactions. If you leave this field blank, the system does not perform export processing.

4. Work Order Header Before Image

1 = Include before image

Blank = Do not include before image

Use this processing option to specify whether the system writes the before image for the work order header. Valid values are:

1 The system includes the image.

Blank The system does not include the image.

5. Parts List Before Image

1 = Include before image

Blank = Do not include before image

Use this processing option to specify whether the system writes the before image for the parts list. Valid values are:

1 The system includes the image.

Blank The system does not include the image.

6. Routing Instructions Before Image

1 = Include before image

Blank = Do not include before image

Use this processing option to specify whether the system writes the before image for the routing instructions. Valid values are:

1 The system includes the image.

Blank The system does not include the image.

Printing a Summary

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

The Work Order Summary report retrieves the work orders that you specify from the Work Order Master File 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.

See Also

- R31400, Work Order Summary* in the *Reports* documentation for a report sample

Attaching Supplementary Information

After you enter a work order or rate schedule header, you can do any of the following:

- Process the work order or rate schedule using the Order Processing batch program.
- Attach supplementary information interactively. This information includes a parts list, routing instructions, a co-products and by-products list, intermediate items, and serial numbers.
- Attach supplementary information manually.

Note

The Product Data Management system provides information to the Shop Floor Management system about bills of material, work centers, and routing instructions.

See Also

- Entering Rate Schedules* to review the Process processing option for the Enter/Change Rate Schedule program. This program allows you to use order processing to automatically or interactively attach the parts list and routing instructions, or attach them when you run the Order Processing program.

Attaching a Parts List Interactively

After you enter a work order header, you attach a parts list to it. Use one of the following methods to attach a parts list to a work order:

- Enter a custom (manual) parts list
- Copy a parts list from a bill of material
- Copy a parts list from an existing work order

You use the manual method to create the parts list, components, quantities, and the bill of material. You use the copy method to copy existing information from a bill of material or work order instead of manually entering items to create a parts list. Additionally, you can use the

Order Processing program and the appropriate option to attach the parts list to the work order header.

After you attach the parts list to a work order header, you can do the following:

- Specify or change a substitute item or quantities from different locations
- Add or delete components
- Change quantities or other information on the parts list or choose substitute items and their quantities on hand when a component shortage is encountered

To use substitute items or integrate with other J.D. Edwards systems, you should be familiar with the information in the following table:

Substitute items To use substitute items you must use a processing option for Enter/Change Order (P48013) to specify the substitute processing that you want to use. You can select one of the following commitments:

- 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

The Hard/Soft Commit option on the Manufacturing Constant Revisions form must indicate a Hard at Creation of Parts List setting for you to use substitutions.

Warehouse Management integration 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 if you did not locate inventory, 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 on-hand quantity for the To location and decreases the quantity on hand for the From location.

When you re-create the parts list, and the items are in the warehouse, the following two actions can occur:

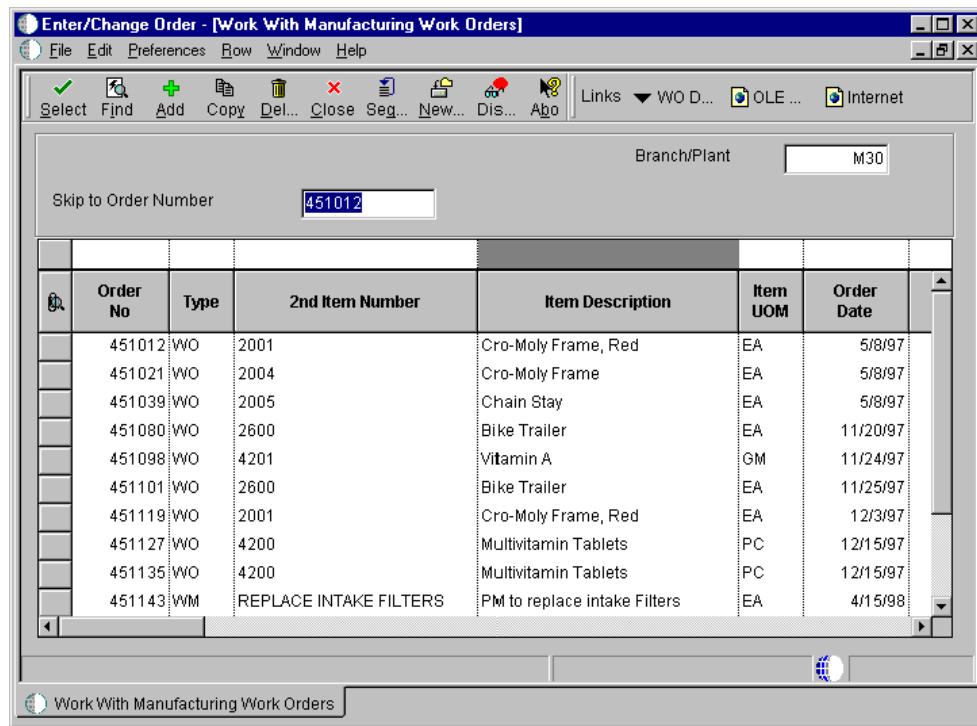
- The Work Order Print program (R31415) prints "In Warehouse" for all items with the correct material status code.
- The Order Processing program (R31410) prints a message indicating that a warehouse pick request already exists. The system does not generate a parts list.

See Also

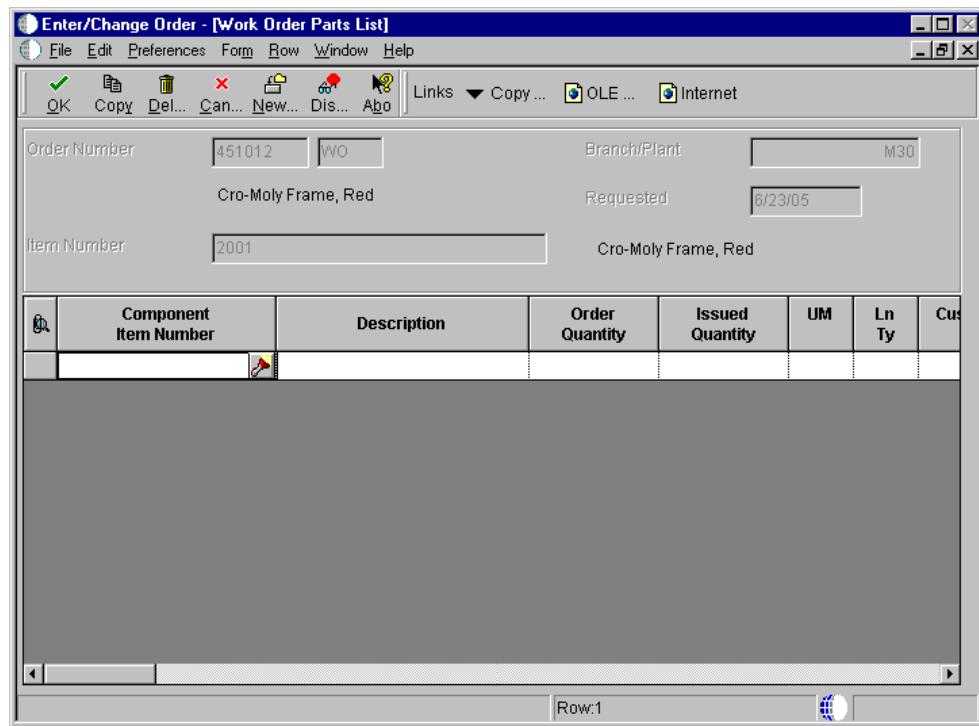
- ❑ *Entering Work Order Headers* for more information about using Notes windows to create a separate generic text entry for each work order

► To attach the parts list

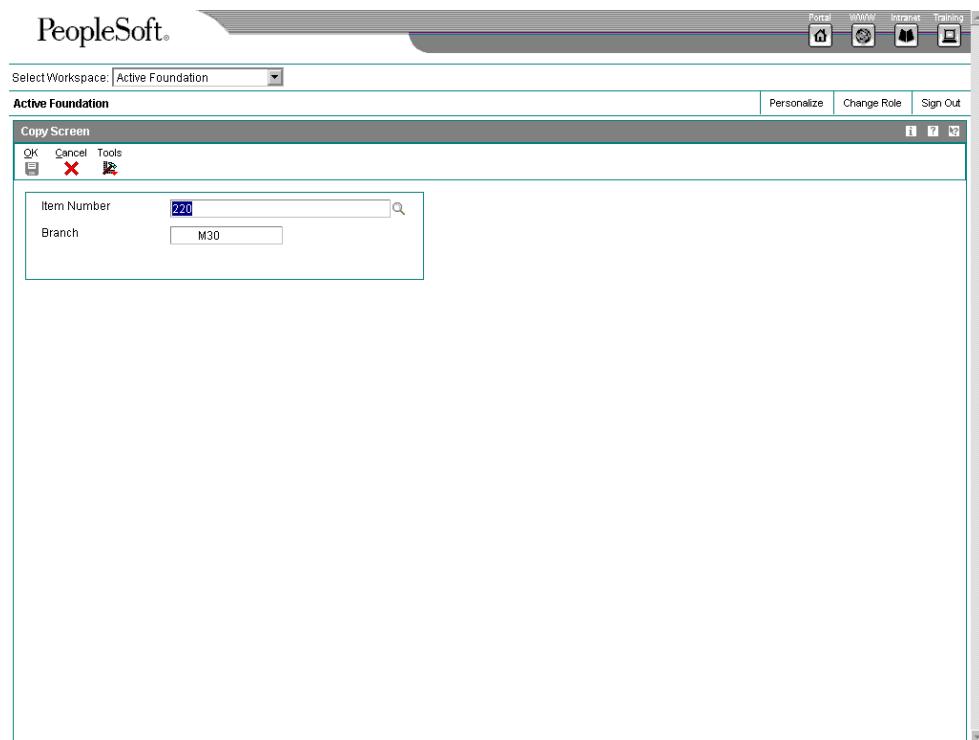
From the Daily Order Preparation - Discrete menu (G3111), choose Enter/Change Order.



1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a specific work order:
 - Skip to Order Number
2. Choose the record, and then choose Parts List from the Row menu.



3. On Work Order Parts List, choose Copy BOM from the Form menu.



4. On Copy Screen, click OK to copy the bill of material for the displayed item and branch/plant to the parts list.
5. On Work Order Parts List, review the following fields to verify that you have attached the correct parts list:
 - Requested
 - Item Number
 - Component Item Number
 - Description
 - Order Quantity
 - UM
 - Ln Ty
 - Component Branch
 - Location
 - Lot Serial Number
 - Lot Grd
 - Lot Potency
 - Oper Seq#
 - From Potency
 - Thru Potency
 - Frm Grd
 - Thr Grd
 - Oper Scrap
 - Is Cd
 - Mt St
 - Cmp Rev
 - F V
 - Component Item Number
 - Component 2nd Number
 - Component 3rd Number

6. To add the parts list to the work order header, click OK.
7. On Work With Manufacturing Work Orders, choose Parts List from the Row menu to review the parts list.

The screenshot shows the PeopleSoft Work Order Parts List interface. At the top, there's a toolbar with buttons for OK, Delete, Cancel, Form, Row, Tools, and a search icon. Below the toolbar, the order details are displayed: Order Number 451194, WO Touring Bike, Red, Branch/Plant M30, Requested 06/30/98. The item number 220 is also shown. The main area is a grid titled "Records 11 - 18" with the following data:

Component Item Number	Description	Order Quantity	Issued Quantity	UM	Secondary Qty Ordered	Secondary Qty Issued	Sec UM	Ln Ty
2016	Wheel Set, Rear			EA			S	
2017	Seat			EA			S	
2018	Seat Post, AA			EA			S	
2020	Stem			EA			S	
2021	Handle Bar			EA			S	
2022	Pedal, Right			EA			S	
<input checked="" type="checkbox"/> 2023	Pedal, Left			EA			S	
<input type="checkbox"/>								

► To choose substitute items

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

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 at least one quantity is available.

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:
 - Skip to Order Number
2. Choose the record, and then choose Parts List from the Row menu.
3. On Work Order Parts List, choose an item, and then choose Substitute Avail (Availability) from the Row menu.
4. On Substitute Availability Revisions, review the following information:
 - Quantity Ordered
 - Component 2nd Number

- Quantity Available
- Quantity On Hand

5. Change the value in the following field as needed:

- Quantity Ordered

6. To place the equivalent quantity for the component in the parts list, click OK.

The quantity is calculated using the values that you set up for substitute items (fixed or variable, partial, and so on).

► To enter multiple locations

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

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.

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:
 - Skip to Order Number
2. Choose the record, and then choose Parts List from the Row menu.
3. On Work Order Parts List, choose an item, and then choose Multi-Location from the Row menu.

The screenshot shows a PeopleSoft application window. At the top, there's a toolbar with icons for Portal, WWW, Intranet, Training, and others. Below the toolbar, a menu bar has "Active Foundation" selected. On the right side of the header, there are links for Personalize, Change Role, and Sign Out. The main area contains two windows:

- Select Multiple Locations Dialog:** This window has several input fields and buttons. Fields include Line Number, Item Number (set to 2004), Total Selected (167), Quantity Under, Units Ordered (167 EA), Location, Memo Lot 1, Memo Lot 2, From Lot, To Lot, and Branch/Plant (M30). Buttons include OK, Find, Cancel, Row, and Tools.
- Grid View:** Below the dialog is a data grid with the following columns: Quantity, Secondary Quantity, Location, Lot / Serial, Branch Plant, Available, UM, Secondary Available, Secondary UM, and Based On Date. The first row shows data for Item Number 2004, with a checked checkbox in the first column. A second row is partially visible below it.

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

- Quantity
- Location
- Lot / Serial
- Branch/Plant

5. Click OK.

► **To copy a parts list from an existing work order**

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

You can copy a parts list from a previously entered work order and attach the parts list to a new work order.

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:

- Skip to Order Number
2. Choose a record, and then choose Parts List from the Row menu.
 3. On Work Order Parts List, click the Copy icon on the toolbar.

Note

The Copy icon in step three is not the same as the Copy function on the Form or Row exit.

4. On Copy Screen, complete the following fields to enter the work order from which you want to copy the parts list and click OK.

- Order Number
5. Make any final corrections to the imported parts list and click OK.

► **To copy a parts list from a bill of material**

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

You can also copy a parts list from a bill of material that you established in the work order header.

1. On Work With Manufacturing Work Orders, complete the following field and click Find:

- Skip to Order Number
2. Choose a record, and then choose Parts List from the Row menu.
 3. On Work Order Parts List, choose Copy BOM from the Form menu.

4. On Copy Screen, complete the following fields and click OK:

- Branch/Plant
- Item Number

See Also

- ❑ *Processing Work Orders and Rate Schedules* for more information about running the Order Processing batch program
- ❑ *About the Parts List and Routing* in the *Product Costing and Manufacturing Accounting* documentation for information about work order costs
- ❑ *Defining Commitment Rules* for information about commitment control and substituting items

Processing Options for Work Order Parts List (P3111)

MFG Edits

1. Allow attaching Parts List at prior revision levels
2. Enter the Cross-Reference Code for retrieving item replacements for obsolete items
3. Enter a '1' to allow selection of components for inclusion on the parts list when performing a Copy. If left blank, all components will be included on the parts list.

Process MFG

1. Enter a '1' to create Routings when creating Parts List
2. Enter the substitute processing method.
'1' - Use substitutes for shortages. (Commitment processing will be used if '1' is selected.)
'2' - Display the Substitute Availability Window when substitute quantity can cover the shortage.
If left blank, substitute processing will not be done.
3. Enter a '1' to bypass commitment processing. If left blank, commitments will be processed per Commitment Control in Manufacturing Constants (F3009).
4. Enter a '1' to copy the component's generic text to the work order parts list.

Warehousing

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

2. If processing pick requests through the subsystem, enter the version of Location Selection to use. If blank, XJDE0007 is used. (R46171)
3. 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.
4. 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.

Versions

Enter the version of the following applications. If left blank, the version in parenthesis will be used.

1. Work Order Routings - P3112 (ZJDE0001)
2. Work Order Inventory Issues - P31113 (ZJDE0001)

EM Edits

1. Enter a '1' to require the entry of the Required Date. Leave blank to allow a blank required date.

Purchase Order Information

2. Enter a '1' to allow Purchase Orders to be created.
3. Enter the Parts List Status Code to signify that a Purchase Order has been created.
4. Enter a '1' to consolidate all messages onto one Purchase Order by vendor.

EM Versions

Enter the version of the following applications. If left blank, the version in parenthesis will be used.

1. Supplier Master - P01054 (ZJDE0001)
2. Open Order Inquiry - P430301 (ZJDE0006)
3. Supply and Demand Inquiry - P4021 (ZJDE0003)
4. Item Availability by Time - P3413 (ZJDE0002)

5. Purchase Order Entry - P4310 (ZJDE0001)

Export

1. Enter the Transaction Type for the export transaction. If left blank, export processing will not be performed.
 2. Enter a '1' to write the before image for a change transaction. If left blank, the before image will not be written .
-

Note

You can access the processing options from the Interactive Versions form on menu GH9011. Enter P3111 in the Interactive Application field, click Find, choose the program version, and then choose Processing Options from the Row menu.

Attaching Routing Instructions Interactively

After you enter a work order header, you attach the routing instructions to it. Additionally, you can enter a custom, or manual, set of routing instructions.

You use the manual method to change a step in the operation that the Order Processing program assigns, or you can change the step after the interactive or batch attachment process. You use the copy method to copy existing information from a routing or an existing work order instead of manually creating the routing instructions. Use the Order Processing program and the appropriate processing option to attach the routing instructions to the work order header.

When you locate the routing instructions, 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 routing instructions are not attached to the work order, no values appear in the associated fields.

You must create a purchase order for any step in the routing instructions that involves a subcontractor. Do this using the Work With Routing Master program (P3003). 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.

Caution

If you change the status of a routing instruction operation, the system can create duplicate purchase orders for that operation. Also, if you delete an outside operation with an associated purchase order, the system deletes the purchase order if the original status of the operation remains unchanged. When the system deletes the purchase order, it updates the quantity of the value of the purchase order for the primary location and the open amount in the supplier instructions.

Note

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

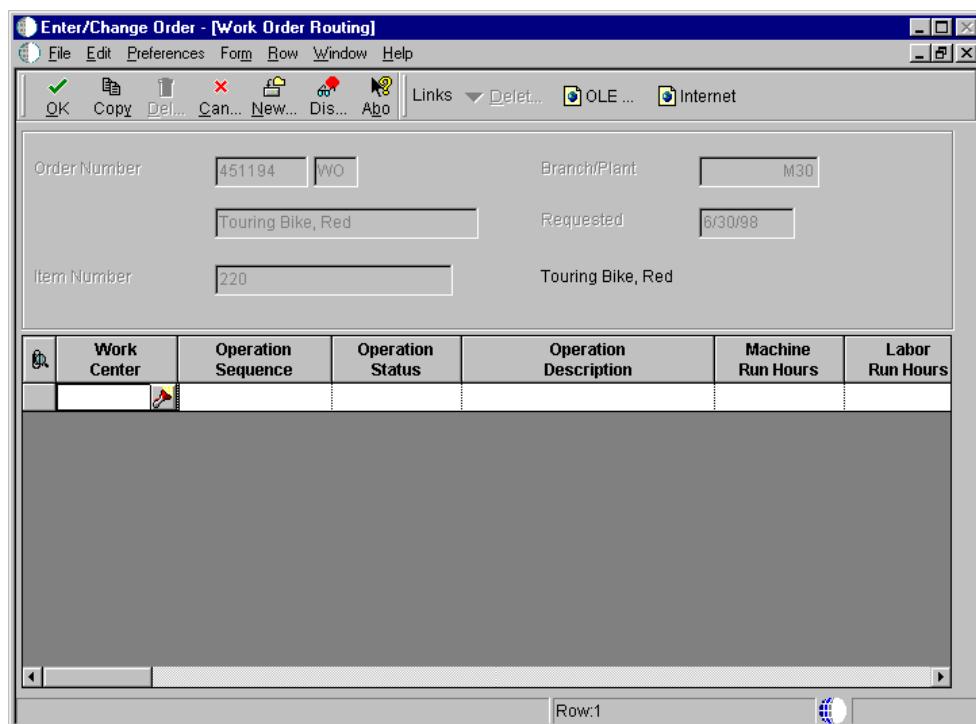
Before You Begin

- ❑ 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.

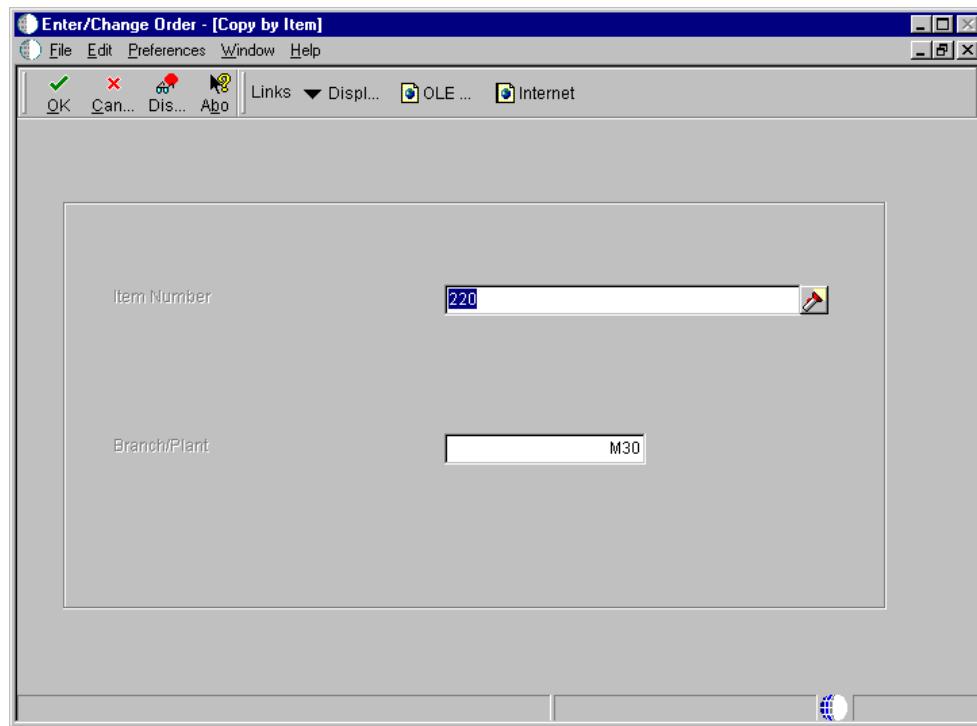
► To copy a work order routing from a routing

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

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:
 - Skip to Order Number
2. Choose a record, and then choose Routing from the Row menu.



3. On Work Order Routing, choose Copy by Item from the Form menu.



4. On Copy by Item, click OK to copy the routing instructions for the displayed item and branch/plant to the work order.

Work Center	Operation Sequence	R/A	Operation Status	Operation Description	Machine Run Hours	Labor Run Hours	Run Labor	Con	Proc
200-901	10.00 0		Assembly						
200-901	20.00 0		Assembly						
200-901	30.00 0		Assembly						
200-901	40.00 0		Assembly						
200-911	50.00 0		Test/Inspect						
200-920	60.00		Package						

5. On Work Order Routing, review the following fields:

- Work Center
- Operation Sequence
- Operation Description
- Machine Run Hours
- Labor Run Hours
- Cons Prod
- Instruction Number
- Start Date
- Equipment Number
- Request Date
- Operation Type
- Pay Point
- Crew Size
- Setup Hours
- Move Hours
- Queue Hours

See *Setting Up Manufacturing Constants* in the *Product Costing and Manufacturing* documentation for information on costing options and actual costing.

6. To add the routing instructions to the work order header, click OK.
7. On Work With Manufacturing Work Orders, choose the record and then choose Routing from the Row menu to review information on the routing instructions.
8. To change routing instruction information for a specific operation sequence, choose the appropriate sequence, and then choose Details from the Row menu.

The screenshot shows the 'Routing Details' window for Work Order 451194. The window has tabs for 'Routing Details' and 'Notes'. The 'Routing Details' tab is active. It contains several sections:

- Order Number:** 451194 (WO)
- Branch/Plant:** M30
- Touring Bike, Red** (Requested and Parent Item)
- Work Center:** 200-920
- Op Seq No:** 60.00
- Oper Desc:** Package
- Hours:** (Labor, Move, Machine, Queue, Setup)
- Crew Size:** 2.0
- Req Date:** (empty)
- Opr Yld %:** 100.00
- Start Date:** (empty)
- Cum Yld %:** 100.00
- Equip No:** (empty)
- Overlap %:** (empty)
- Instr No:** (empty)
- Pay Point:** B
- Oper Type:** (empty)
- Time Basis:** U
- Rel PO No:** (empty)

- On Routing Details, make the appropriate changes and click OK.

See Also

- Entering Work Order Headers for more information about using the Notes window to create a separate generic text entry for each work order
- Processing Work Orders and Rate Schedules for instructions on running the Order Processing batch program
- About the Parts List and Routing in the Product Costing and Manufacturing Accounting documentation for information about the work order costs

► To copy a work order routing from a bill of material

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

- On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:
 - Skip to Order Number
- Choose a record, and then choose Routing from the Row menu.
- On Work Order Routing, choose Copy by Item from the Form menu.
- On Copy Screen, complete the following fields and click OK:
 - Branch/Plant
 - Item Number

Note

You establish the bill of material on the work order header.

► **To copy routing instructions from an existing work order**

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

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate a work order:
 - Skip to Order Number
 2. Choose the record and then choose Routing from the Row menu.
 3. On Work Order Routing, click the Copy icon on the toolbar.
-

Note

The Copy icon in step three is not the same as the Copy function on the Form or Row exit.

4. On Copy by Order Number, complete the following field to enter the work order from which you want to copy the routing and click OK:
 - Work Order Number
5. Make any final corrections to the routing instructions and click OK.

Processing Options for Work Order Routing (P3112)**Process Tab**

These processing options allow you specify whether the system creates a parts list and copies generic text during the processing.

1. Create Parts List

Blank = No Parts List.

1 = Parts List.

Use this processing option to specify whether the system creates a parts list when it creates routings for a work order. The system adds the parts list information to the Work Order Parts List table (F3111). Valid values are:

- Blank The system does not create a parts list when it creates routings for a work order.
- 1 The system creates a parts list when it creates routings for a work order.

2. Operation's Generic Text

Blank = Does not copy to the work order routing.

1 = Copies to the work order routing.

Use this processing option to copy the operation's generic text to a work order routing. Valid values are:

- Blank The system does not copy the operation's generic text to a work order routing.
- 1 The system copies the operation's generic text to a work order routing.

3. Queue and Move Hours

Blank = Do not default Queue and Move Hours from Work Center.

1 = Always Default Queue and Move Hours from Work Center.

2 = Default Queue and Move Hours from Work Center only for manual entry.

Use this processing option to specify whether the queue and move hours in the Work Order Routing program (P3112) enter the work center when the system leaves the values blank in the Standard Routing program (P3003). Valid values are:

Blank The system does not enter the queue and move hours from the work center in the Work Order Routings program when the system leaves the values blank in the Standard Routing program.

- 1 The system enters the queue and move hours from the work center in the Work Order Routings program only when the system leaves the values blank in the Standard Routings program.
- 2 The system enters the queue and move hours from the work center in the Work Order Routings program only when you manually add a routing step or instruction in the detail area for work order routings.

Export Tab

These processing option allow you to specify the transaction type that the system uses for export processing and for the Supply Chain Planning and Scheduling integration.

1. Transaction Type

Enter the Transaction Type for the export transaction.

Blank = Export processing will not be performed.

Use this processing option to specify a transaction type that the system uses for export processing or for the Supply Chain Scheduling and Planning.

Transaction type is a user defined code (00/TT) that identifies the type of transaction for the work order.

Enter the transaction type to use as the default value. Blank is a valid value if you do not want to use export processing.

Versions Tab

This processing option allows you to specify which version of the Capacity Load program (P3313) to use.

1. Capacity Load program (P3313)

Blank = ZJDE0003

Use this processing option to specify the version of the Capacity Load program (P3313). The system uses this program to identify the capacity load in a work center for a specific operation in the work order routing. If you leave this option blank, the system uses the default version ZJDE0003.

Note

You can access the processing options from the Interactive Versions form on menu GH9011. Enter P3112 in the Interactive Application field, click Find, choose the program version, and then choose Processing Options from the Row menu.

Attaching Co-Products and By-Products

For Process Manufacturing, after you enter a work order header, you attach a co-products and by-products list to the work order.

► To attach co-products and by-products

From the Daily Order Preparation - Process menu (G3113), choose Enter/Change Order.

1. On Work With Manufacturing Work Orders, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record, and then choose Co/By Products from the Row menu.

	Ingredient Co/By Product	Co By	Description	Oper Seq#	Ln Ty	Qty Ordered/ Output Qty	UM	Completed/ Issued	Secondary Qty Ordered
<input checked="" type="checkbox"/>	5010	B	Sludge	10.00	S	2	GA		
<input type="checkbox"/>	5110	C	Household Lubricant Bulk	30.00	S	20	GA		
<input type="checkbox"/>	5210	C	Graphite Lubricant Bulk	40.00	S	30	GA		
<input type="checkbox"/>									

3. On Work Order Process Resource Revisions, review the following fields and click OK:
 - Item Number
 - Co By
 - Description
 - Qty Ordered/ Output Qty
 - UM

Attaching Intermediate Items

For Process Manufacturing, use intermediates to track the quantity of output of any operation in a work center at a specific time. You can define intermediates in different units of measure and quantities. You set up one intermediate per operation. However, you cannot define an intermediate for the last operation.

An example of an intermediate is fermented liquid. The liquid ferments for an extended period of time before being distilled. The resulting liquid is not a finished product, but one that proceeds to the next operation.

► To attach intermediates

From the Daily Order Preparation - Process menu (G3113), choose Enter/Change Order.

1. On Work With Manufacturing Work Orders, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record, and then choose Routing from the Row menu.
3. On Work Order Routing, choose an item and choose Intermediates from the Row menu.

Item Number	Description	Quantity Ordered	UM	Oper Seg#	Remark	Stocking Type	Component Branch
5001	Refined Oil	48	OZ	10.00		0	M30

4. On Intermediate Product Revisions, complete the following fields and click OK:
 - Item Number
 - UM
 - Quantity Ordered

Assigning Serial Numbers

You assign serial numbers to 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 by using Assign Work Order LSN. You can also assign serial numbers to specific assemblies at the time of work order completions by using Associate Issued Item LSNs. You can associate serialized components to a specific assembly either at inventory issues or at work order completions. You must issue serialized components in their respective primary unit of measure to associate them to a specific assembly.

The Assign Serial Numbers program (P3105) 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.

Note

You can only delete serial numbers if the system detects no activity for the number.

Before You Begin

- ❑ Set the Lot Process Type and Serial Number Required fields on the Item Master Information form for serial number processing. See *Entering Item Master Information* in the *Inventory Management* documentation for details about the Item Master Information form.

► To assign serial numbers

From the Daily Order Preparation - Discrete menu (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 directly from the menu.

1. On Work With Manufacturing Work Orders, complete the following field and click Find to locate the work order to which you want to assign serial numbers:
 - Skip to Order Number
2. Choose the work order, and then choose Serial Numbers from the Row menu.

Enter/Change Order - [Work With Work Order Serial Numbers]

File Edit Preferences Form Row Window Help

Select Find Close Seg... New... Dis... Abo | Links Revisi... OLE... Internet

Order Number	451080	WO	Branch Plant	M30
Item Number	2600	Bike Trailer		
Qty Ordered	5	EA	Requested	6/10/05
Qty Completed	5	Qty Scrapped		

Lot/SN	Memo Lot 1	Memo Lot 2	Date Complete
20592	1-1		11/24/97
20593	1-1		11/24/97
20594	1-1		11/24/97
20595	1-1		11/24/97
20596	1-1		11/24/97

3. On Work With Work Order Serial Numbers, choose Revisions from the Form menu.
4. On Serial Number Revisions, choose Lot/SN Generation from the Form menu to assign serial numbers.

PeopleSoft.

Select Workspace: Active Foundation

Active Foundation

Personalize Change Role Sign Out

Serial Number Revisions

OK Delete Cancel Form Row Tools

Order Number	451080	WO	Branch/Plant	M30
Item Number	2600	Bike Trailer		
Qty Ordered		EA	Requested	06/10/05
Qty Completed		Qty Scrapped		

Lot / SN	Memo Lot 1	Memo Lot 2	Date Complete
20592	1-1		11/24/97
20593	1-1		11/24/97
20594	1-1		11/24/97
20595	1-1		11/24/97
20596	1-1		11/24/97

5. Review the following fields and click OK:

- Lot / SN
- Memo Lot 1
- Memo Lot 2

Grade and Potency and Lot Processing

Grade and Potency and Lot Processing

Grade identifies an item's particular specification makeup. Potency identifies the percentage of active ingredient within a solution. Lot processing allows you to manage and maintain information about groups of items.

Understanding Grade and Potency

Manufacturers in the process industry need full control over the quality of products that they make or buy. Examples of process industries include 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 and distribution processes.

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. The grade or potency for each lot is used by programs that calculate on hand and available quantities.

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.

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 material inquiries for Shop Floor Management.

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.

What is Grade?

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 of items that have grades 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 system functions verify grades and will not perform transactions if the items involved do not meet the grade parameters.

What is Potency?

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

Grade and Potency Control

You set up the following grade- or potency- control fields on the Grade and Potency tab on the Additional System Information form. The system uses these control field values when you create a branch/plant record for the item.

Grade/Potency Pricing	Determines how to price grade or potency controlled items in Sales Order Management.
Potency Control	Identifies whether the item is potency controlled.
Grade Control	Identifies whether the item is grade controlled.
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 J.D. Edwards Manufacturing systems. In certain cases, the potency standard is used for the potent unit of measure conversion.
Standard Grade	Identifies the standard grade of the item, such as premium or average. The value entered here provides the default for several forms in J.D. Edwards Manufacturing systems.
From and Through Potency	Defines the allowable potency ranges for an item.
From and Through Grade	Defines the allowable grade ranges for an item.

You define the values for grade, potent units of measure, and potent units of measure conversions in user defined code tables as follows:

- Define the user defined codes for the grades that 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 list 00/UM. For each potent unit of measure that you define, you must type P in the second space of the Special Handling Code field, located on the User Defined Codes form.
- Define a conversion for each potent unit of measure to a physical unit of measure on 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.

See Also

- ❑ *Entering Item Grade and Potency Information* in the *Inventory Management* documentation for more information about grade and potency

Lot and Serial Control Items

Use the Item Branch/Plant program to identify the item as a lot- or serial- controlled item. Grade- and potency- controlled items must be lot controlled. When you identify the item as a lot- or serial-controlled item, enter one of the following values in the Lot Process Type field:

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

- 1** Lot assignment is used. Numbers are assigned by the system using the system date in YYMMDD format. Quantity can be greater than one.
- 2** Lot assignment is used. Numbers are assigned in ascending sequence using next numbers. Quantity can be greater than one.
- 3** Lot assignment is required. Numbers must be manually assigned. Quantity can be greater than one.
- 4** Serial number assignment is optional except during shipment confirmation. Quantity must not exceed 1.
- 5** Serial number assignment is required. The system assigns numbers using the system date in YYMMDD format. Quantity must not exceed 1.
- 6** Serial number assignment is required. The system assigns numbers in ascending order using next numbers. Quantity must not exceed 1.
- 7** Serial number assignment is required. You must manually assign numbers. Quantity must not exceed 1.

When you attach a parts list to a work order header, the system creates commitments 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 and 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.

Understanding Lot Processing

Lot processing allows you to manage information about groups of items. For example, for groups of perishable items, you can have the system assign lot numbers 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 do the following:

- Identify the lot number for the tires that were used in the manufacture of a specific bicycle
- Identify all bicycles that used tires from a specific lot

If you later find that a particular lot of tires is defective, you can immediately identify and recall all bicycles that drew from the lot of 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, work order number, or both. If you do not enter the lot number of the end item at the time of issue, the system uses only the work order number to link the component to the end item.

Expiration planning considers the expiration dates of lots while calculating the on-hand quantity 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.

Expiration planning is important because whoever in the chain has possession of 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 File table (F3411)
- Adjust the time series to reflect the expired product's effect

You can use several methods to assign lot numbers to items. For example, you can:

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

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

See Also

- ❑ *Defining System Constants* in the *Inventory Management* documentation for information about allowing different types of items in the same lot

Understanding Lot Creation

You can create lots automatically or manually. You can create lots automatically when you do any of the following:

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

You can create lots manually, either from the Lot Master Revisions form or 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 program to specify a reason code for a grade or potency change. In addition, you can use processing options to protect a grade or potency from being updated.

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).

See Also

- Entering Lot Information* in the *Inventory Management* documentation for the steps to enter lot information for items and to enter information for lots

Understanding Lot Status

A lot's status determines whether it is available for the system to process. When a lot is on hold for any reason, the system does not process it unless you activate a processing option that allows processing of held lots.

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

- Setting up lot status codes
- Assigning status codes to different lot locations

You set up lot status codes in the Lot Status Code Revisions program. You assign status codes to different lot locations in the Lot Master Revisions program.

You can run Lot Status Update to place expired lots on hold. You can run the program in proof or final mode. 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 do the following:

- Enter a new lot using the Lot Master Revisions form. 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 File table (F4102).
- Set up a new location for an item using the Item Branch/Plant program.

You assign lot statuses using the following:

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

You can assign lot statuses to different lot locations using the Location Lot Status Change form from the Lot Master program. When you create a lot through transfer from another location, the system assigns statuses, using 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 File table (F4102).
Item Location File (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 following sequence to assign a lot status: <ul style="list-style-type: none">• 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 File table (F4102).

See Also

- ❑ *Working with Lot Availability* in the *Inventory Management* documentation for the steps to view lot quantities, activity dates, and statuses
- ❑ *Viewing Lot Transactions* in the *Inventory Management* documentation for the steps to set up, review, and print lot trace and track information
- ❑ *Reclassifying Lots* in the *Inventory Management* documentation for the steps to reclassify lots
- ❑ *Working with Lot Statuses* in the *Inventory Management* documentation for the steps to set up lot status codes and assign them to different lot locations

Commitments

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 type of commitment that the program creates (hard or soft) depends on which commitment option that you specified in the Manufacturing Constants program.

- A hard commitment physically designates inventory in a specific location to a particular work order.
- A soft commitment allows you to tentatively commit the inventory to a work order. 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 orders to available inventory.

The J.D. Edwards system allows you to use hard commitments or soft commitments in a work order, or you can 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 creation 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.

The Work Order Inventory Issues program (P31113) relieves commitments. Because of commitments that are line levels, when you issue or reverse inventory from a secondary location, the commitment is hard. Also, when you partially issue or reverse inventory to a different location, the system relieves the commitment from the old location and commits the remaining material to the new location.

If you use lot processing, the system creates commitments based on the lot expiration dates, and grade or 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 that 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.

Enter/Change Order	Using the Enter/Change Order program, you can automatically generate the following:
	<ul style="list-style-type: none"> • Routing instructions, when you create the parts list online • Parts list, when you create the routing instructions online
Order Processing	Using the Order Processing program, you can specify either the work order effective date or start date for effectivity checking. You can automatically:
	<ul style="list-style-type: none"> • Use substitutes for items out of stock and blanket order release processing • Generate the parts list, or routing instructions, or both

See Also

- About Lot Processing*
- About Grade and Potency*

Inventory Process

The following graphic illustrates the entire process of creating the work order header, attaching the paperwork, and integrating with your inventory and other systems. The hand shows at which point in the process the system commits inventory.

Defining the Commitment Rules

When a parts list is attached to a work order header, either manually or by 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 created. If you are using lot control, you can also manage commitments by grade or potency. You repost commitments when you need to clear commitments and reassign quantities to other work orders.

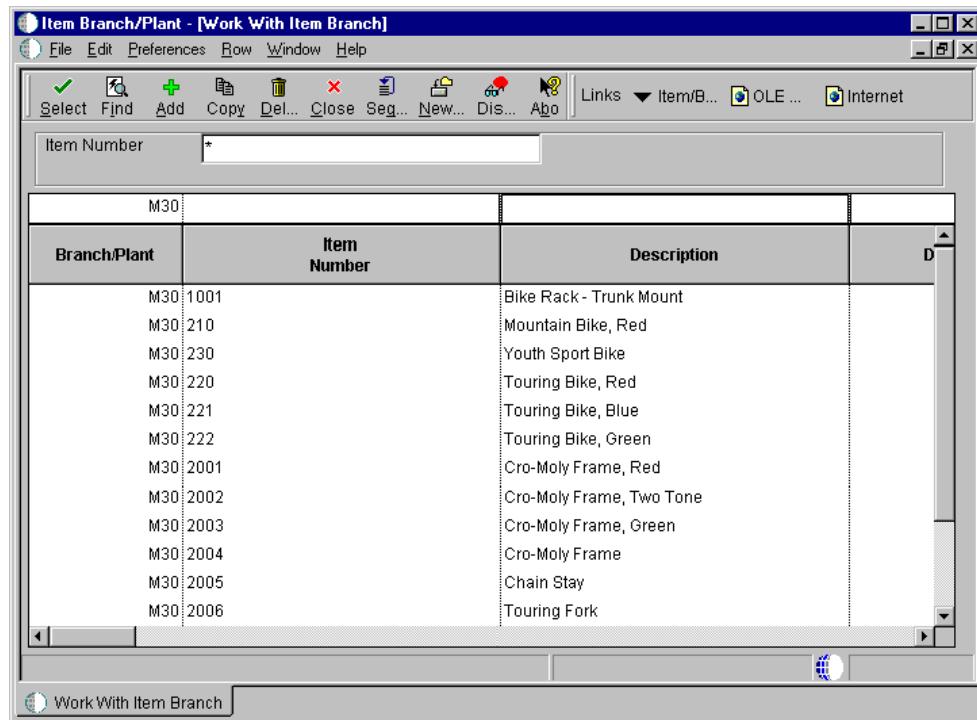
When commitments are created, either manually or by using the batch program, you can activate a processing option to verify if substitutes exist for an item. When you create commitments manually, the item number is highlighted during the attachment process. You must use a hard commitment at the creation of a work order or at pick time to use substitutes.

Defining the Commitment Method for the Item

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

► To define the commitment method for the item

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



1. On Work With Item Branch, complete the following field and click Find:

- Item Number

2. Choose a record and click Select.

3. On Item/Branch Plant Info., complete the following field and click OK:

- Commitment Method

Depending on how the processing options are set, other forms might appear, such as the following:

- Work With Item Unit of Measure Conversions
- Work With Preference Base Price
- Cost Revisions

4. Regardless of the form that appears, click OK.

After you complete these steps, define the commitment control and type of commitment for your work order.

Processing Options for Item Branch (P41026)

Process

1. Category Codes

Blank = Do not display screen

1 = Display screen

2. Quantities

Blank = Do not display screen

1 = Display screen

3. Additional System Information

Blank = Do not display screen

1 = Display screen

4. Item Profile Revisions

Blank = Do not display screen

1 = Display screen

5. Cost Revisions

Blank = Do not display screen

1 = Display screen

6. Price Revisions

Blank = Do not display screen

1 = Display screen

7. Unit of Measure

Blank = Do not display screen

1 = Display Unit of Measure screen

Workflow

1. Workflow (FUTURE)

Blank = Do not activate Workflow

1 = Adds

2 = Changes

3 = Adds and Changes

2. Allow Changes (Restart Workflow) (FUTURE)

Blank = Do not allow additional changes

1 = Allow changes to the record and restart Workflow

3. Logged as History Record (FUTURE)

Blank = Do not log item as a history record

1 = Log all additions and changes as history records

Versions

1. Summary Availability (P41202)

Blank = ZJDE0001

2. Item/Location Information (P41024)

Blank = ZJDE0001

Interop

1. Transaction Type

Blank = No outbound interoperability processing

2. Before/After Image Processing

Blank = Write only the after image

1 = Write the before and after image

Defining the Commitment Control and Type of Commitment

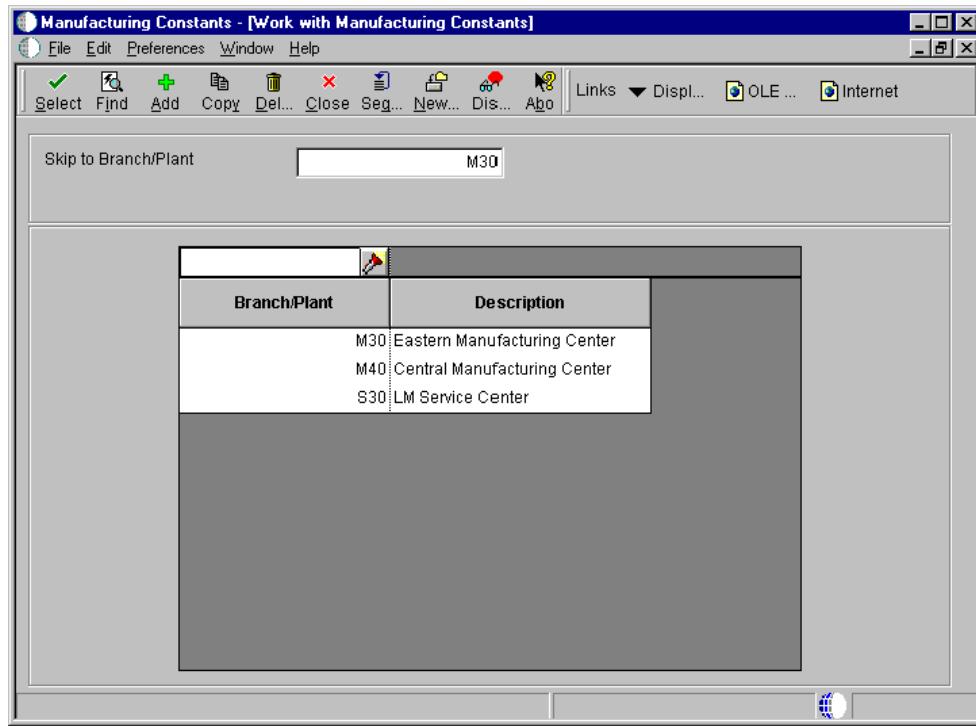
You can define the commitment control method and type of commitment for the work order.

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

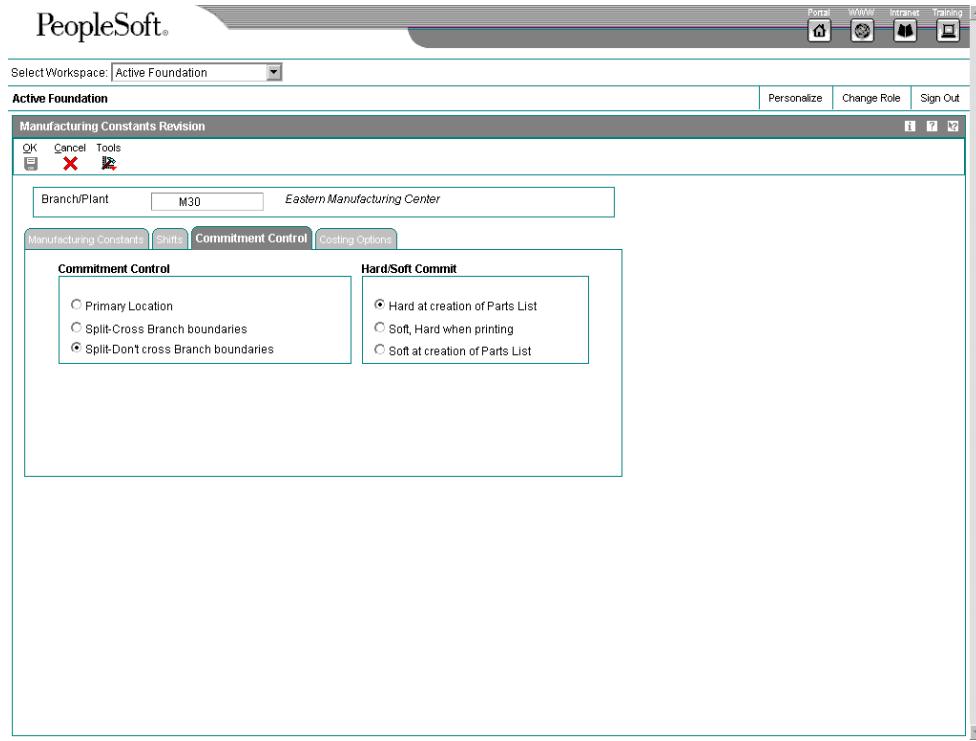
► **To define the commitment control and type of commitment**

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

After you define the commitment method for the item, define the commitment control and type of commitment for the work order.



1. On Work With Manufacturing Constants, complete the following field and click Find:
 - Skip to Branch/Plant
2. Choose a record and click Select.



3. On Manufacturing Constants Revision, click the Commitment Control tab and then choose one of the following options under Commitment Control:
 - Primary Location
 - Split-Cross Branch boundaries
 - Split-Don't cross Branch boundaries

If you choose primary location, the program will not select lots.

If you want to split locations, you have two options. You can either specify commitments across different locations within one branch/plant, or specify commitments across different locations from different branch/plants.

4. Choose one of the following options under Hard/Soft Commit and click OK:
 - Soft, Hard when printing
 - Soft at creation of Parts List
 - Hard at creation of Parts List

If you use substitutes, you must specify a hard commitment.

Defining Commitments at a Work Center Location

When you define the commitments at a work center location you set up the following values for the work order:

- The work center for the work order routing instructions
- The dispatch group and location for the work center
- The operation sequence numbers for the components of the parent item
- The backflush option for the branch/plant

Defining the Work Center in the Item's Routing Instructions

Use the Enter Routing Information form to define the work center to use for each operation in the routing instructions for a specific item.

► To define the work center in the item's routing instructions

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

	Work Center	Oper Seq#	Description	Run Labor	Run Machine	Setup Labor	Effective From
	200-901	10.00	Assembly	.50			4/4/9
	200-901	20.00	Assembly	.25			4/4/9
	200-901	30.00	Assembly	1.00			4/4/9
	200-901	40.00	Assembly	1.00			4/4/9
	200-911	50.00	Test/Inspect	.25			4/4/9
	200-920	60.00	Package	.25			4/4/9

1. On Work With Routing Operations, complete the following fields and click Find:
 - Item Number
 - Branch/Plant
2. Choose a record and click Select.

PeopleSoft®

Work Center	Oper Seq#	Description	Run Labor	Run Machine	Setup Labor	Cons Prod	Queue Hours	Move Hours	Line/Cell	Effective From
200-901	10.00	Assembly	0.50	0.00	0.00	Cons	0.00			04/04/97
200-901	20.00	Assembly	0.25	0.00	0.00	Cons	0.00			04/04/97
200-901	30.00	Assembly	1.00	0.00	0.00	Cons	0.00			04/04/97
200-901	40.00	Assembly	1.00	0.00	0.00	Cons	0.00			04/04/97
200-911	50.00	Test/ Inspect	0.25	0.00	0.00	Cons	0.00			04/04/97
200-920	60.00	Package	0.25	0.00	0.00	Cons	0.00			04/04/97

3. On Enter Routing Information, complete the following field and click OK:

- Work Center

After you complete these steps, define the location at the work center.

Processing Options for Work With Routing Master (P3003)

Display

1. Enter a '1' next to the following fields to activate the field on the form.

Line/Cell

Routing Type

Batch Quantity

Defaults

1. Enter the values to preload to the screen at initial inquiry.

Type of Routing

Process

1. Select the screen mode ('0' = Inquiry, '1' = Revise).

Mode - Processing

2. Enter a '1' to update the component operation scrap percent in the Bill of Material for the components on the operation and the Cumulative Yield Percent on the Routing, when updating the operation yield percent.

Update

Interop

1. Enter the transaction type for the interoperability transaction. If left blank, outbound interoperability processing will not be performed.

Transaction Type

2. Enter the version of "Process Outbound Routings" (R3003Z1O). If left blank, ZJDE0001 will be used.

Outbound Processing Version

3. Enter a '1' to write the before image for a change transaction. If left blank, no before images will be written.

Before Image Processing

Versions

Enter the version for each program. If left blank, version ZJDE0001 will be used.

1. Bill of Material Revision (P3002)
 2. Work With Assets (P1204)
 3. Work With Item Master (P4101)
-

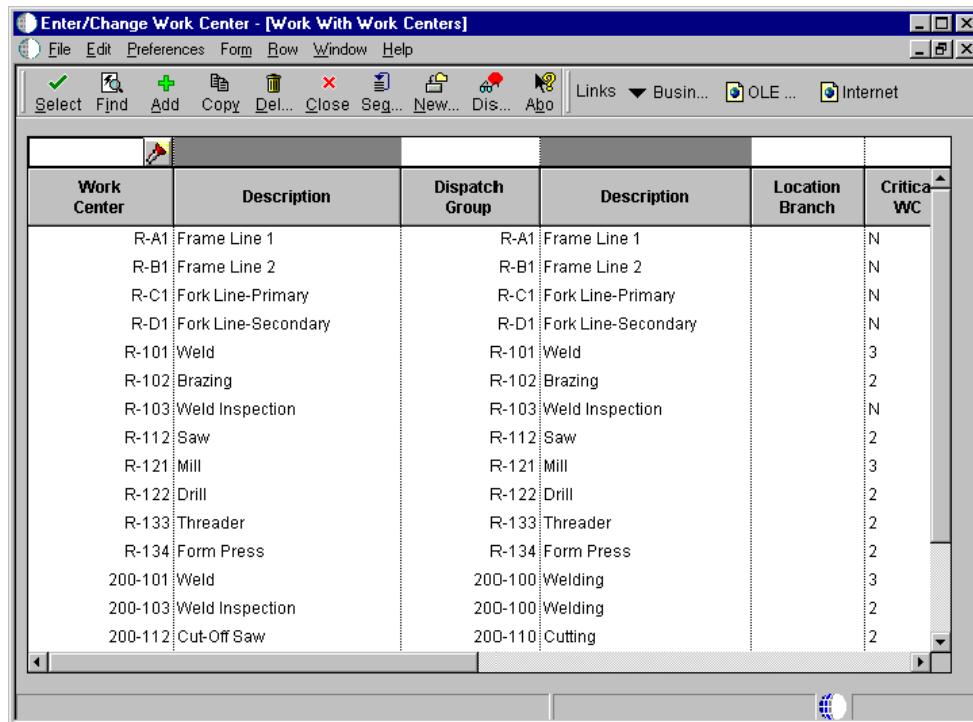
Defining the Location at the Work Center

Use the Work Center Master Revisions form to define the location for a specified work center.

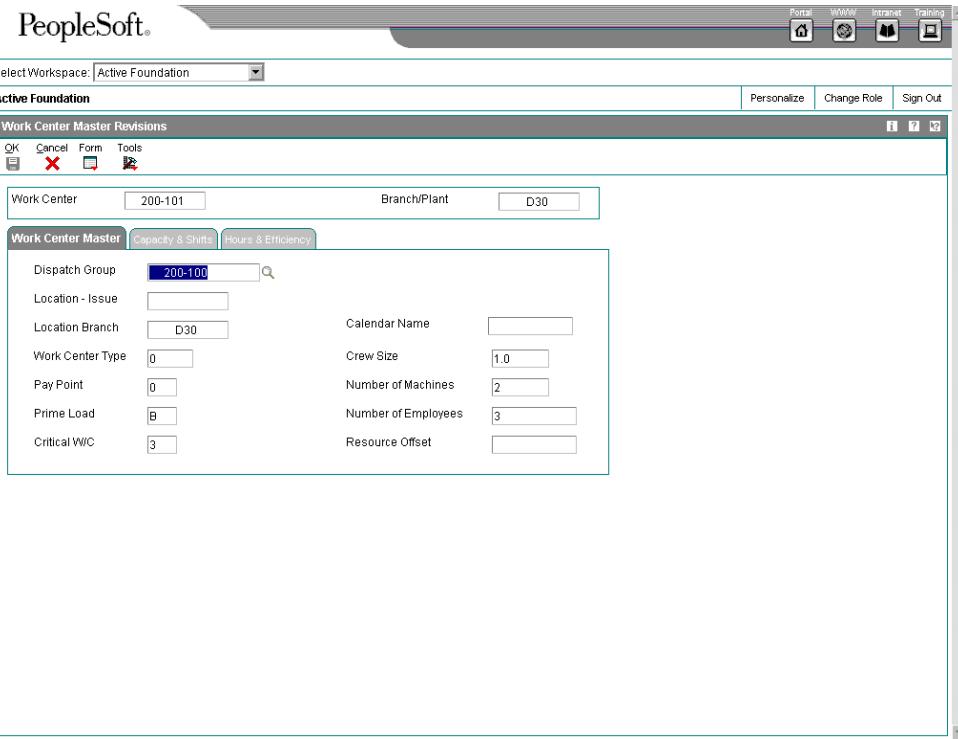
► To define the location at the work center

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

After you define the work center in the item's routing instructions, define the location at the work center.



1. On Work With Work Centers, click Find to locate all work centers or use the Query by Example row to narrow your search to specific work centers.
2. Choose a record and click Select.



3. On Work Center Master Revisions, complete the following fields and click OK:

- Location - Issue
- Location Branch

After you complete these steps, define the branch and parent item for the bill of material.

See Also

- Processing Options for Work Center Revision (P3006)*

Defining the Branch and Parent Item for the Bill of Material

For Discrete Manufacturing only, use the bill of material forms to identify the bill's parent item and corresponding branch/plant.

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

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

After you define the location at the work center, define the branch and parent item for the bill of material.

1. On Work with Bill of Material, complete the following fields and click Find:

- Branch/Plant

- Item Number

2. Choose a record and click Select.

Item Number	Description	Quantity	UM	Active Ingr. Flag	Fv	Is Cd	Stkg Typ	Ln Ty	Line No.	Oper Seq#	Effec Fror
2001	Cro-Moly Frame, Red	1	EA		V	U	M	S	10.00	10.00	04/0
2006	Touring Fork	1	EA		V	U	P	S	20.00	20.00	
2007	Bottom Bracket	1	EA		V	U	P	S	30.00	30.00	
2008	Head Set	1	EA		V	U	P	S	40.00	40.00	
2009	Crank	2	EA		V	U	P	S	50.00	50.00	
2010	Chain Rings	1	EA		V	U	P	S	60.00	60.00	
2011	Chain, Std	1	EA		V	U	P	S	70.00	60.00	
2013	Shift Kit	1	EA		V	U	P	S	80.00	30.00	
2014	Brake Kit	1	EA		V	U	P	S	90.00	40.00	
2015	Wheel Set, Front	1	EA		V	U	P	S	100.00	60.00	

3. On Enter Bill of Material Information, complete the following field and click OK:

- Oper Seq#

Processing Options for Bill of Material Revisions (P3002)

Defaults

1. Component Branch

Blank = The system uses component branch when copy BOM.
1 = The system uses parent branch when copy BOM.

2. Bill of Material Type

Blank = The system uses M for manufacturing bill of material.

3. As of Date

Blank = The system uses all dates.

1 = The system uses the current date.

4. Display Sequence

Blank = The system sequences by component line number.

1 = The system sequences by component line Number.

2 = The system sequences by operation sequence number.

Display

1. Bill Type

Blank = The system does not display the Bill Type field.

1 = The system displays the Bill Type field.

2. Batch Quantity

Blank = The system does not display the Batch Quantity field.

1 = The system displays the Batch Quantity field.

Versions

Enter the version for each program. If left blank, version ZJDE0001 will be used.

1. Single Level BOM Print (R30460)
2. Multi Level BOM Print (R30460)
3. ECO Workbench (P30225)
4. Component Maintenance (P3015)
5. ECO Header [P30BREV]
6. Bill of Material Where Used (P30201)
7. Item Master (P4101B)
8. Co/By- Products Inquiry (P30211)
9. Bill of Material Inquiry (P30200)

Edit

1. Item Branch Validation

Blank = The system does not check to see if the item branch is valid.

1 = The system checks for a valid item branch record.

Interop

1. Transaction Type

Blank = The system does not perform outbound interoperability processing.

JDEBOM = The system performs outbound interoperability processing.

2. Write Image for a Change Transaction

Blank = The system stores the after image from F3002 to F3002Z1

1 = The system stores the before image from F3002 to F3002Z1

3. Interoperability Outbound (R00460)

Blank = The system uses the ZJDE0001 version of R00460.

Defining How the System Commits Inventory During Backflush

Use the Manufacturing Constants Revision form to specify the way that you want the system to commit and release inventory during the backflush process.

► To define how the system commits inventory during backflush

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

After you define the branch and parent item for the bill of material, define how the system commits inventory during backflush.

1. On Work with Manufacturing Constants, complete the following field and click Find:
 - Skip to Branch/Plant
2. Choose a record and click Select.



3. On Manufacturing Constants Revision, complete the following field and click OK:
- Backflush Options

Managing Commitments for Grade and Potency

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 creates the commitments in date sequence.

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

	Location	Exp. Date	Grade	On Hand	Commit
Primary					50
Secondary	8406220000	08/31	A01	50	50
Secondary	8406230000	08/15	A02	300	300
Secondary	8406240000	12/12	A03	400	400
Secondary	8406250000	09/01	A04	5	5
Secondary	8406260000	09/01	A05	5000	5000

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

- About Grade and Potency*

Converting Units of Measure 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, assume that the primary unit of measure is GA (gallons), the component unit of measure is GP (potent gallons), and the standard potency is 70%. Also assume that the parts list requires 500 GP.

In the following example, only the equivalent of 470 potent gallons are available. The demand for the remaining 30 potent gallons is committed back to the primary location ($30 \text{ GP} / .7 = 43 \text{ GA}$).

Location	Potency	On Hand	Potent Units	Commit at standard 70%
Primary				43
Secondary 9406220000	80%	50	40	50
Secondary 9406230000	80%	300	270	300
Secondary 9406240000	40%	400	160	400

Using the example above, if the primary unit of measure is GP, then 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 ($100 / .75$). Companies that store in potent units must know the physical size of the inventory.

Caution

The system displays 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 nonpotent and commitments in a potent unit of measure exist from a sales order or work order. Conversion errors work in both directions. That is, commitments can be out of balance by either the potent or not primary unit of measure. 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 sales order, after you repost the work order.

To create commitments for potent units you must set up the correct unit of measure conversions.

Before You Begin

- Set up the Potent Unit UDC (00/OP). See *Understanding User Defined Codes for Work Orders*.

► To convert units of measure for potent units

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

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

- Convert potent units of measure to physical units of measure
 - Convert physical units of measure to potent units of measure
1. On the Work With Standard Units of Measure form, click Add.

The screenshot shows a PeopleSoft application window titled "Standard Units of Measure Revisions". At the top, there are buttons for OK, Cancel, Tools, and a search icon. Below these are three input fields: "From Unit of Measure" (containing "1"), "Conversion Factor" (containing "="), and "To Unit of Measure" (empty). The background of the main window is light blue.

2. On Standard Units of Measure Revisions, complete the following fields and click OK:
 - To Unit of Measure
 - Conversion Factor
 - From Unit of Measure

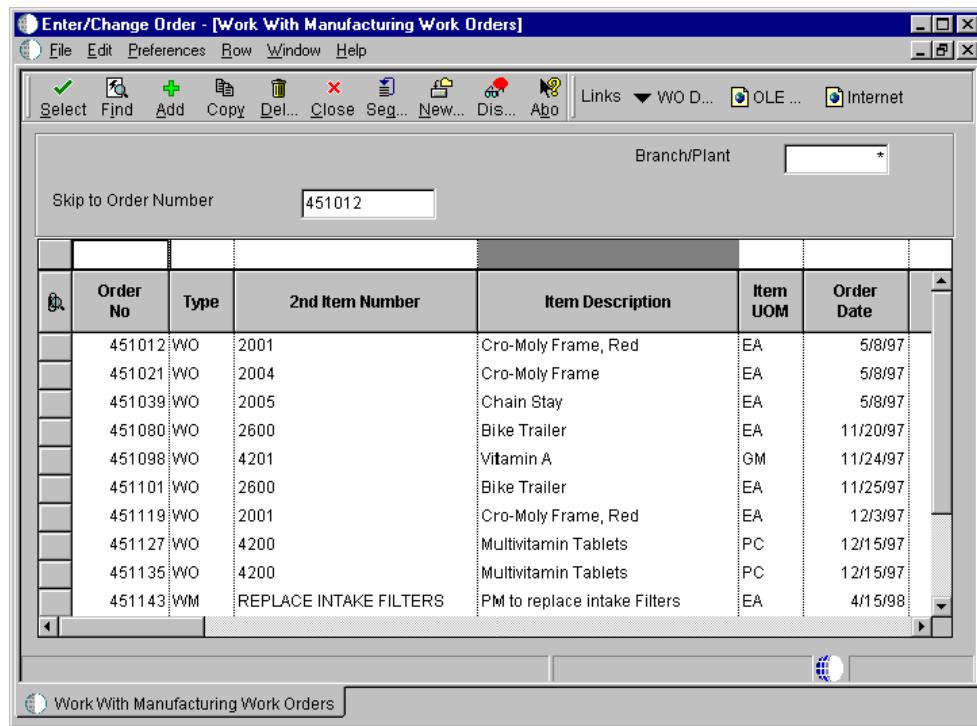
The conversion for potent units is always 1 potent unit = 1 physical unit. For example, 1 LP = 1 LT and 1 GP = 1 GA.

Managing Commitments for Controlled Items

Use the Work Order Parts List form to specify the location and grade or potency for each applicable component on a work order.

► To manage commitments for controlled items

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



1. On Work With Manufacturing Work Orders, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record, and then choose Parts List from the Row menu.

Component Item Number	Description	Order Quantity	Issued Quantity	UIM	Secondary Qty Ordered	Secondary Qty Issued	Sec UIM	Ln Ty
<input checked="" type="checkbox"/> 2004	Cro-Moly Frame	10		EA			EA	S
<input type="checkbox"/> 2005	Chain Stay	20		EA			EA	S
<input type="checkbox"/> 9026	Acid	3		LP			LT	S
<input type="checkbox"/> 9011	Paint, Red	2250		ML			ML	S
<input type="checkbox"/> 9031	Primer	2250		ML			ML	S

3. On Work Order Parts List, complete the following fields and click OK:

- Location
- Lot Grd
- Lot Potency

After you complete these steps, set up a unit of measure conversion for the potent units.

See Also

- *Entering Work Order Headers* to review the processing options for Manufacturing Work Orders

Reposting Commitments

From the Shop Floor Management Advanced menu (G3131), choose Repost Open Quantities.

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

- Clear (set to zero) all values for the quantity and quantity committed in the Item Location File table (F41021).
- Repost the quantity value in the Item Branch table for the parent item. The system uses the information from the Work Order Master File table (F4801) and the following calculation:

quantity ordered - (quantity completed + quantity scrapped)

- Repost 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 Work Order Parts List table (F3111) and the following calculation:

quantity required - quantity issued

Processing options allow you to repost only those work orders that are below a certain status.

The system does not repost bulk items and lines that do not have an inventory interface.

Before You Begin

- Verify that the Item Location File table (F41021) is not in use.
- Indicate whether you want inventory hard or soft committed at each branch. See *Defining the Commitment Rules*.

Processing Options for Repost Open Work Orders (R3190)

Process

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'.

Work Order Status Code

Availability and Shortages

Availability and Shortages

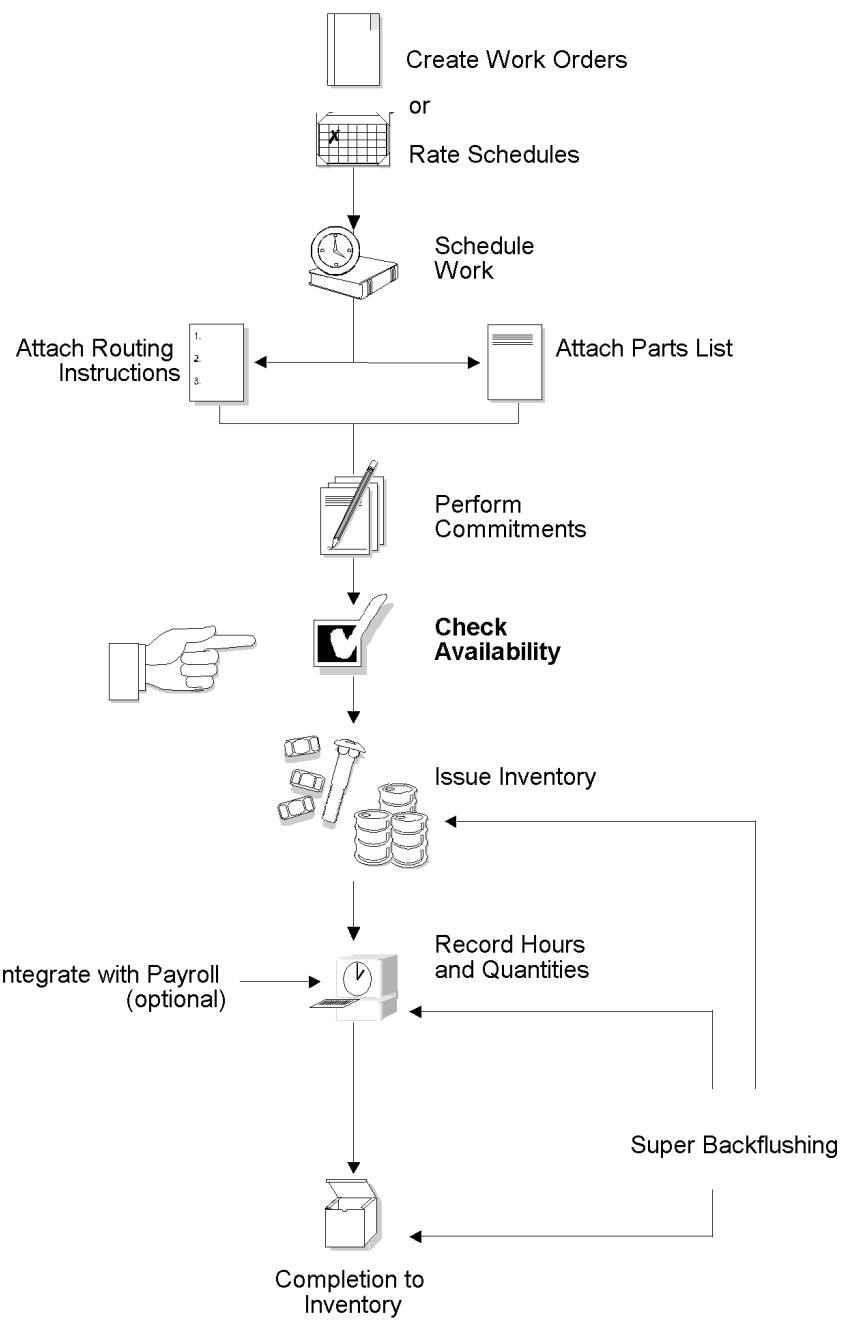
To ensure that jobs are completed in the most cost-effective manner, Shop Floor Management coordinates material handling, material availability, setup and tooling availability, and operator skills. You can use availability and shortage tracking programs to determine what inventory you have and what inventory you need.

You should check the availability of the parts that are needed to complete a work order either 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 verify availability with a work order after the work order has been created. You can also check availability with 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.

Note

If you use the J.D. Edwards Procurement system, you can automatically generate purchase orders for subcontracted operations on the routing instructions.

The following graphic illustrates the entire process of creating the work order header, attaching the paperwork, and integrating with your inventory and other systems. The hand shows at which point in the process the system checks for availability.



Managing Availability Information

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 also check availability against a bill of material for a rate schedule:

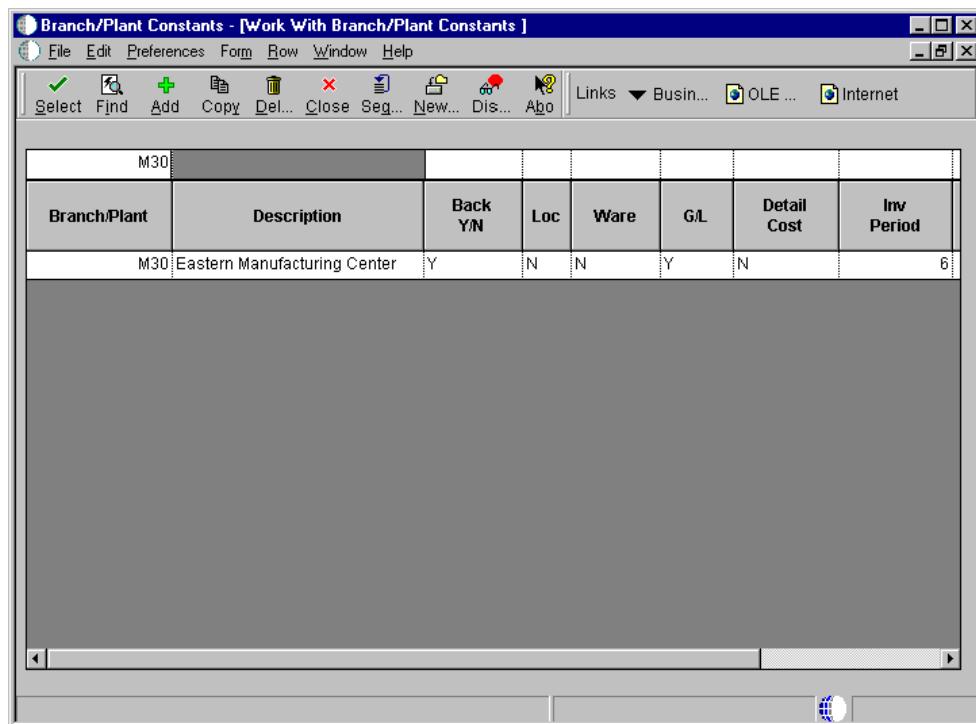
- After the work order has been created
- Before creating a work order for an item

Defining Availability Calculations for a Branch

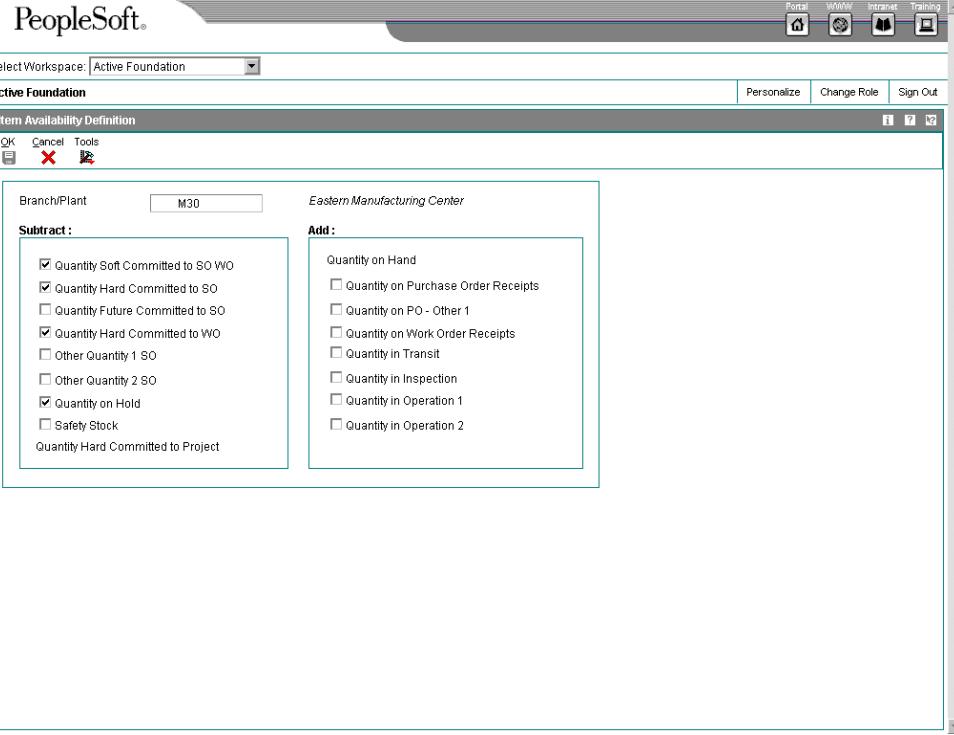
The system uses the quantities defined for each branch to calculate availability. Therefore, you indicate the quantities that you want the system to add or subtract from the on-hand balance when the system calculates availability at your branch. If you leave any field blank, the system excludes that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

► To define availability calculations for a branch

From the Inventory Setup menu (G4141), choose Branch/Plant Constants.



1. On Work With Branch/Plant Constants, complete the following field in the Query by Example row and click Find:
 - Branch/Plant
2. Choose the branch, and then choose Availability from the Row menu.



3. On Item Availability Definition, click any of the following options to subtract the appropriate quantities:

- 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, click any of the following options and then click OK:

- 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 Part Availability

You should check the availability of the parts required to make a certain quantity of a parent item before you create a work order or rate schedule. Use the Bill of Material Inquiry program (P30200) to check the availability of the parts.

► To review part availability

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

Level	2nd Item Number	Description	Quantity	Quantity On Hand	Quantity Available	UOM	Issue Code	Active Ingr. Flag
1	2001	Cro-Moly Frame, Red	0	0	0 EA	V	U	
.2	2004	Cro-Moly Frame	0	0	0 EA	V	I	
.3	9001	25 mm Cro-Moly Tubing	0	0	0 CM	V	B	
.3	9002	50 mm Cro-Moly Tubing	0	0	0 CM	V	B	
.3	9004	50 mm Cro-Moly Bar	0	0	0 CM	V	B	
.2	9011	Paint, Red	0	75-	-3 ML	V	B	
.2	9031	Primer	0	75-	-78 ML	V	B	
.2	9026	Acid	0	0	0 LP	F	I	
.2	2005	Chain Stay	0	9	9 EA	V	B	
.3	9003	16 mm Cro-Moly	0	1	0 CM	V	B	

1. On Parts Availability - Multi Level Indented, complete the following fields and click Find:
 - Parent Item
 - Branch
2. Review the following fields and click Close:
 - 2nd Item Number

- Quantity Available

After you complete these steps, you can review parts list availability.

Processing Options for Part Availability (P30200)

Defaults

1. Processing Mode

Blank = The system displays the bill of material in the simple inquiry mode.

1 = The system displays the bill of material in the simple inquiry mode.

2 = The system displays the bill of material in the parts availability mode.

3 = The system displays the bill of material in the leadtime inquiry mode.

2. Inquiry Mode

Blank = The system displays the multilevel indented mode.

1 = The system displays the single level mode.

2 = The system displays the multilevel mode.

3 = The system displays the multilevel indented mode.

3. Bill of Material Type

Blank = The system uses M for manufacturing bill of material.

4. Display Sequence

Blank = The system sequences by component line number.

1 = The system sequences by component line number.

2 = The system sequences by operation sequence number.

Versions

1. Bill Of Material Print (R30460)

2. ECO Workbench (P30225)

3. ECO Header (P48020)

4. Bill of Material Revisions (P3002)

5. Item Master (P4101B)

6. Process Inquiry (P30240)

7. Work With Routing Master (P3003)

8. Item Availability (P41202)

9. Item Cross Reference (P4104)

10. Item Search (P41200)

Select

1. Safety Stock

Blank = The system does not subtract safety stock from the quantity on hand.

1 = The system subtracts safety stock from the quantity on hand.

2. Negative Quantities

Blank = The system does not display negative amounts.

1 = The system displays negative amounts.

3. Leadtime Values

Blank = The system displays the actual values from item branch table (F4102).

1 = The system displays the calculated leadtime values.

Process

1. Phantom Items

Blank = The system excludes phantom items from the inquiry.

1 = The system includes phantom items in the inquiry.

2. Process Items

Blank = The system excludes process items from the inquiry.

1 = The system includes process items in the inquiry.

3. Text Lines

Blank = The system excludes text lines from the inquiry.

1 = The system includes text lines in the inquiry.

4. Consolidate Component Items

Blank = The system shows individual occurrences of duplicate components in the inquiry.

1 = The system consolidates duplicate components in the inquiry.

5. Subassemblies

Blank = The system excludes subassemblies from the inquiry.

1 = The system includes subassemblies in the inquiry.

6. Shrink

Blank = The system excludes shrink from the calculation of requested quantity.

1 = The system includes shrink in the calculation of requested quantity.

7. Scrap

Blank = The system excludes scrap from the calculation of extended quantity.

1 = The system includes scrap in the calculation of extended quantity.

8. Yield

Blank = The system excludes yield from the calculation of extended quantity.

1 = The system includes yield in the calculation of extended quantity.

9. Purchased Items

Blank = The system explodes to the next level of purchased items.

1 = The system does not explode to the next level of purchased items.

Reviewing Parts List Availability

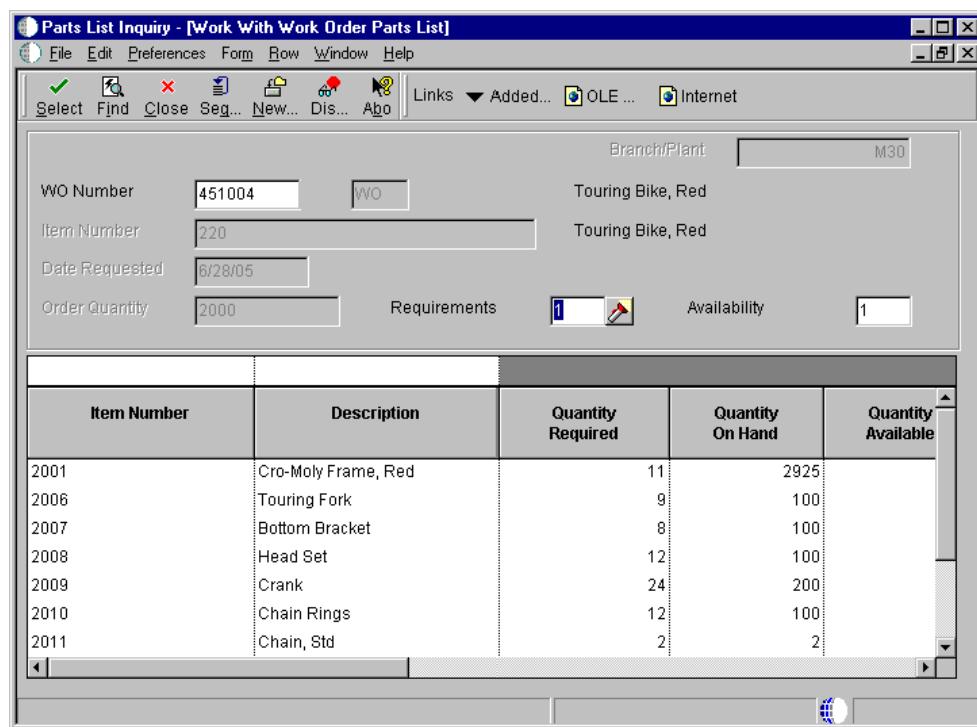
You should check the availability of the parts on the parts list required to make a certain quantity of a parent item before you create a work order or rate schedule. Use the Work With Work Order Parts List form to check the availability of a parts list.

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

► To review parts list availability

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

After you review part availability, you can review parts list availability.



1. On Work With Work Order Parts List, complete the following field and click Find:
 - WO Number

2. Choose the appropriate item and click Select.

The screenshot shows the PeopleSoft Parts List Detail Inquiry interface. At the top, there's a navigation bar with links for Portal, WWW, Intranet, and Training. Below that is a toolbar with icons for Home, Search, Refresh, and Help. The main window has a title bar "Active Foundation". A sub-header "Parts List Detail Inquiry" is visible. The search form includes fields for Item Number (2001), Branch/Plant (M30), Location (..), Date Requested (06/24/05), and various grade and potency ranges. Below the search form, a table displays transaction details:

Qty Required	11	WO Hard Commit	
Qty on Hand		SO Hard Commit	
Qty Available	0	WO/SO Soft Commit	
Ordered	12	Qty on Order	
Issued	1		

3. On Parts List Detail Inquiry, review the following fields:
 - Item Number
 - Qty on Hand

Processing Options for Parts List Inquiry (P3121)

Versions

If blank, version 'ZJDE0001' will be used.

1. Purchase Order Inquiry Version

2. Supply/Demand Version

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 indicates items that are short by displaying a negative available quantity.

You track shortage information for parts with the following characteristics:

- Purchased parts that you obtain from a single source
- Purchased parts that are difficult to obtain
- Parts that have a long leadtime
- Parts, the absence of which stops the production line
- Parts that are expensive to purchase or manufacture
- Parts that must be closely monitored

Locating Shortages

You can locate shortage information for an item that is associated with one or more work orders by 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 using the following criteria:

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

► To locate shortages

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

1. On Work With Shortage Workbench, complete the following fields and click Find:
 - Branch/Plant
 - Order Number
2. Choose a record and click Select.
3. On Shortage Maintenance Revisions, review the following field:
 - Short Quantity

Changing Shortage Information

You can change component shortage information by item, work order, branch/plant, and work order type, or any combination of these. You can also review and revise information that indicates how the system fills shortages.

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

► To change shortage information

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

1. On Work With Shortage Workbench, complete the following fields and click Find:
 - Branch/Plant
 - Order Number
2. Choose a record and click Select.
3. On Shortage Maintenance Revisions, revise the following information, if necessary, and then click OK:
 - Due Date
 - Short Quantity
 - Deliver To W/C
 - Rel Ord Type
 - Requested Date

Processing Options for Shortage Revisions (P3118)

Versions

Enter the reporting feature version. If left blank, default version ZJDE0001 will be used.

1. For Order Inventory Issues :
2. For Open Work Orders:
3. For Open Purchase Orders:

Defaults

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

Printing Shortages

You can print a report that lists all shortages or only the component shortages for a specific work order. The system retrieves the shortage information for these reports from the Shortage Maintenance Master File table (F3118).

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 the following information:

- Quantities available
- Quantities on order
- Quantities required
- Quantities short

Use the processing option to specify whether the system prints only parts with shortages. A part with a shortage is included on more than one order only when the sum of the on-hand quantity and the 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.

Note

If you use Warehouse Management, the Component Shortages report does not include parts that have a status of In Warehouse.

See Also

- Processing Work Orders and Rate Schedules*
- Generating Shop Paperwork*
- R31418, Component Shortages* in the *Reports* documentation for a report sample

Processing Options for Component Shortages (R31418)

Print

1. Enter a '1' to print only parts with a shortage.

Print shortages only.

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 File table (F3118). You can set the processing option to print either one or two lines of detail information about each short item.

Processing Options for All Shortages (R3118P)

Print

1. Enter a '1' to print one line of detail or a '2' for a second line of detail.

Enter your selection

Issues, Material Movement, and Kanbans

Issues, Material Movement, and Kanbans

Regardless of whether you use work orders or rate schedules for an item that 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. Along with issue transactions, you can use a visual system called kanban processing to alleviate paperwork.

The Shop Floor Management and Manufacturing Accounting systems use issue transactions to determine the actual quantities of materials that are used in the production process according to the parts list for the work order or rate schedule.

The following table identifies integration features with other J.D. Edwards systems:

Inventory Management integration	The Inventory Management system allows you to track materials between inventory or storage locations and the shop floor. You can manage inventory issues and commitments, complete orders, and track order quantities throughout the production process.
Warehouse Management integration	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.

When Do You Issue Inventory?

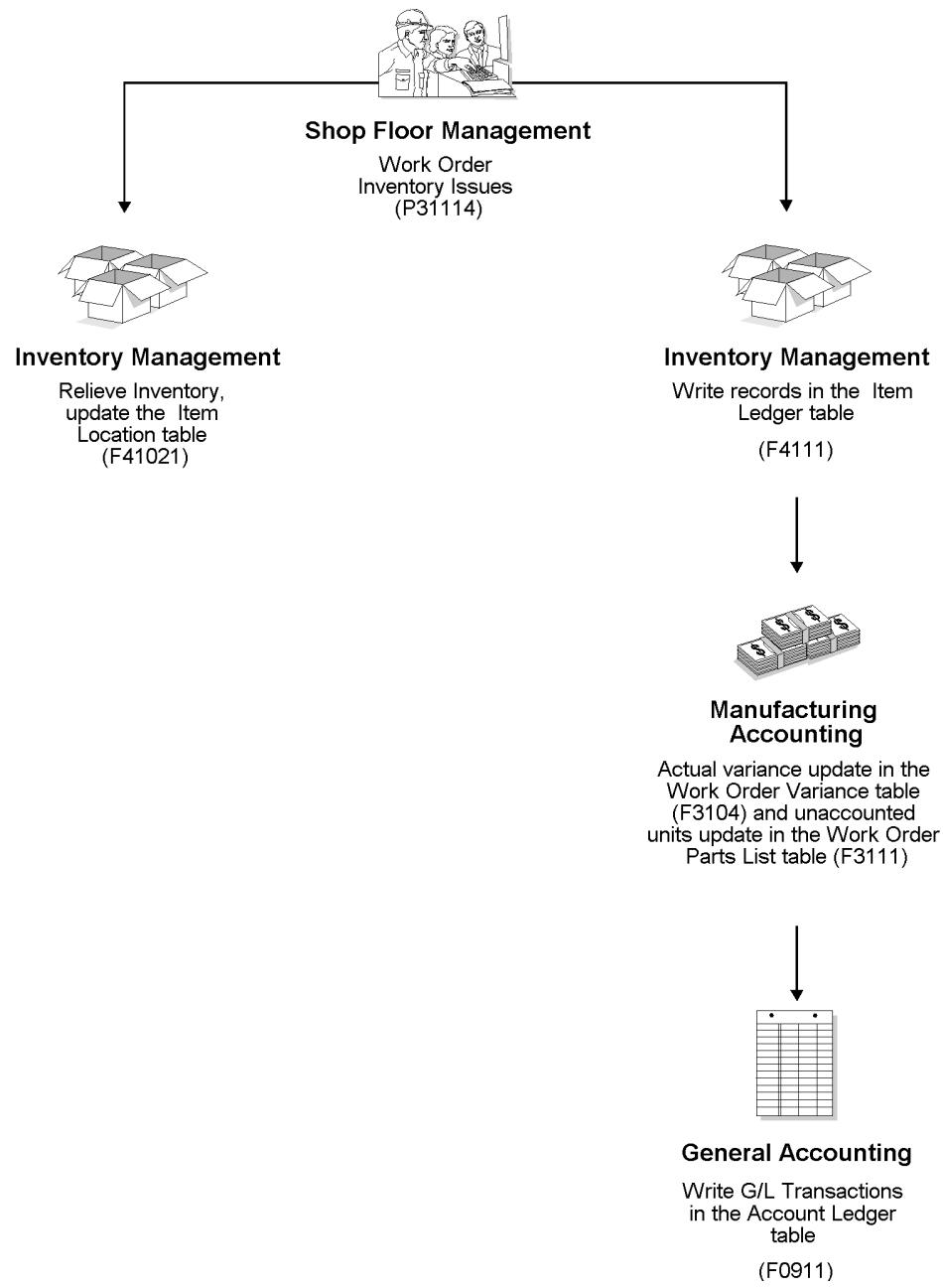
You do not have to generate an issue transactions at the same time inventory is physically moved. The Shop Floor Management system allows you to choose at what point in the production process you want to generate issue transactions. In other words, you can choose when you want your inventory records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

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

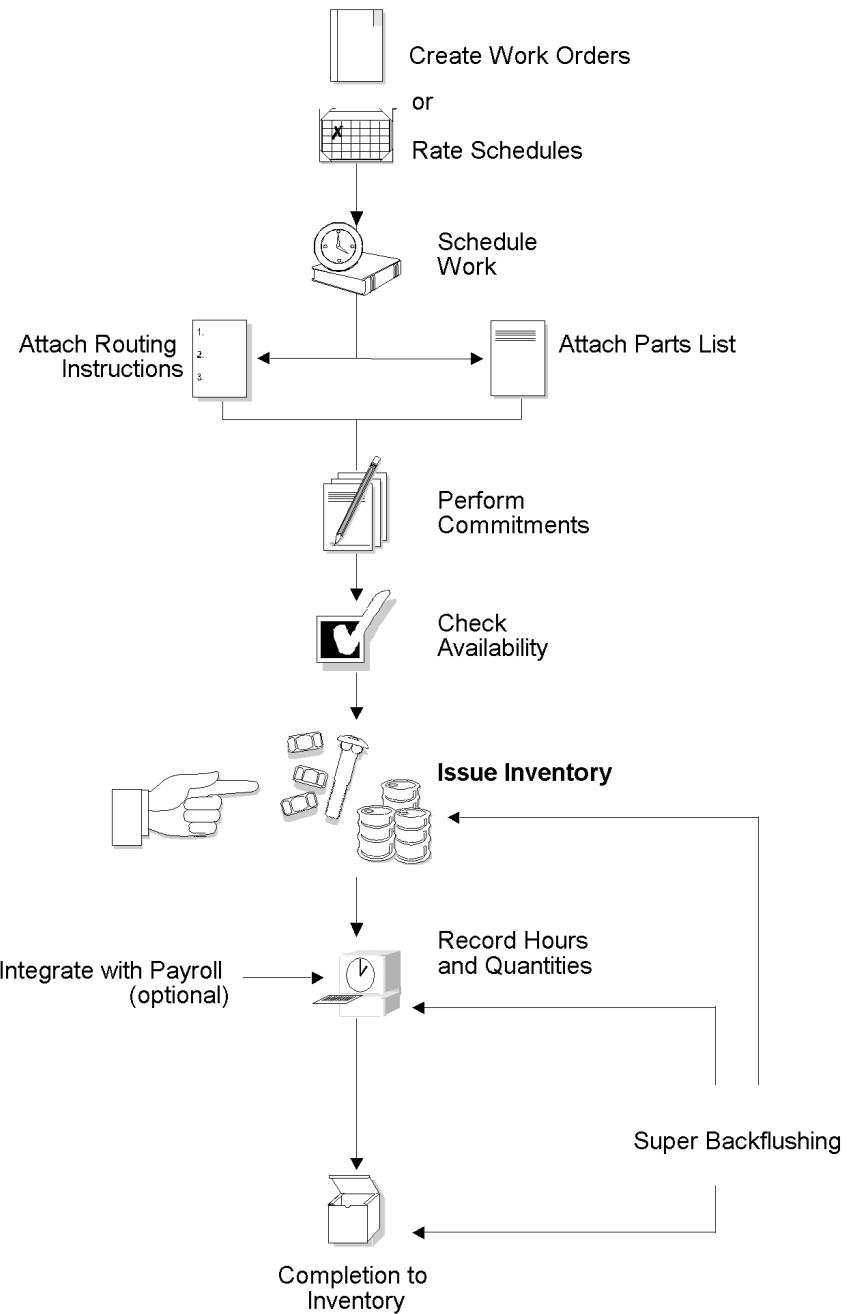
How Do You Issue Inventory?

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

Manual issues	The system automatically.
	See Issuing Material Manually .
Preflushing	The system automatically.
	See Issuing Material by Preflushing .
Backflushing	The system automatically.
	See Completing Work Orders Through Backflush .
Super Backflushing	The system automatically.
	See Processing Work Orders through Super Backflush .
<p>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.</p> <p>You can perform partial issues by setting up the work order or rate schedule 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.</p> <p>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 a warning message. You can either adjust the issue quantity or accept the issue.</p> <p>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.</p>	
<p>From Where Is Inventory Issued?</p> <p>Inventory is issued from the location at which it is committed. You can change the commitment location for an item.</p> <p>Inventory Issues correctly relieves these commitments. Because of commitment at the line level, when you issue or reverse inventory from a secondary location, the commitment is hard. Also, when you partially issue or reverse inventory to a different location, the system relieves the commitment from the old location and commits the remaining material to the new location.</p> <p>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.</p> <p>The following graphic shows the tables that the system updates when you issue inventory.</p>	



The following graphic illustrates the entire process of creating the work order header, attaching the paperwork, and the integrating your inventory and other systems. The hand shows at which point in the process the system issues inventory.



Kanbans

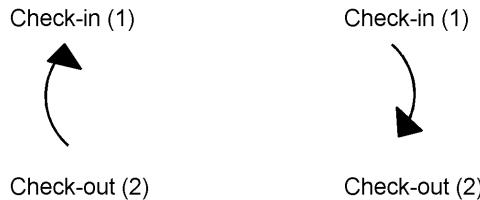
While the requirements for material are driven by demand, the movement can be controlled by visual cues called kanbans. Kanbans are predetermined quantities of components at specified locations on the production line. They are designed to minimize work-in-process inventories. Although you do not have to use kanbans with repetitive manufacturing, you can use them as a means to issue material.

A single program manages the electronically implemented kanbans using two modes. One mode processes kanban consumption by item, while the other mode processes kanban supply by item. Use the consumption mode to access kanbans at a consuming location, and the supply mode to access kanbans at a supplying location, by specifying one or a combination of the following criteria:

- Item
- Location
- Supplier
- Kanban identification

One-Phase

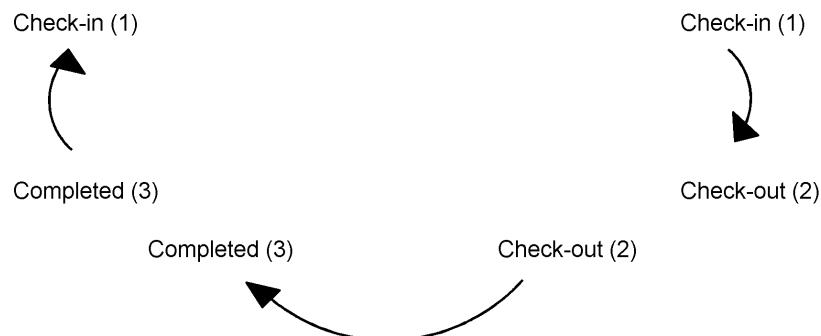
One-phase assumes that the completion and transfer to the consuming location are performed in one step, in which you complete the quantity directly to the consuming location and change the kanban status to checked-in (1).



Two-Phase

Two-phase assumes that the completion and transfer to the consuming location are reported separately. You complete the quantity to the supplying location and change the kanban status to completed (3). After the quantity has been physically 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 the following items:

- Inventoried items
- Manufactured items (subassemblies or phantoms)
- Externally supplied items

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 a transaction for inventory transfer.

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 item's 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 instructions. 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.

When you check out a kanban supplied by a work center or production line, and the item is a phantom, no transactions other than inventory transfers occur. When you have 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 a transaction for inventory transfer, from the supplying location to the consuming location.

Externally Supplied Items Processing

An externally supplied kanban requires an open purchase order for the item. This purchase order can be an existing one, or optionally, one created by the check out process. In addition, when you check out the kanban, the system might also initiate an electronic data interchange (EDI) transaction. When you check in kanbans from an external supplier, the system optionally performs a receipt against the purchase order.

See Also

- ❑ *About Lot Processing* for information about issuing material that is lot controlled
- ❑ *About Grade and Potency* for information about issuing material that is grade or potency controlled
- ❑ *Setting Up Default Location Information* in the *Inventory Management* documentation for more information about specifying locations for a commitment
- ❑ *Completing Rate Schedules* for information about recording completions for rate schedules
- ❑ *Understanding Lot Processing* for information about issuing material that is lot-controlled
- ❑ *Understanding Grade and Potency* for information about issuing material that is grade- or potency-controlled
- ❑ *About EDI Purchase Order Documents* in the *Data Interface for Electronic Data Interchange* documentation for more information about EDI transactions

- ❑ *Sending Kanban Shipping Schedules in the Data Interface for Electronic Data Interchange* documentation for more information about EDI transactions

Issuing Material

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

Note

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

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 through a pick list before the system issues the part. A pick list is a document that specifies to warehouse personnel what inventory to pick up per work order and where the inventory is located. The system generates the pick list when you run Order Processing.

See Also

- ❑ *Entering Item Manufacturing Information* in the *Inventory Management* documentation if you use repetitive manufacturing and need information about simultaneous issue and receipt and replenishment hours
- ❑ *About Grade and Potency* for information about issuing material that is grade or potency controlled
- ❑ *Understanding Grade and Potency* for information about issuing material that is grade- or potency-controlled
- ❑ *What Happens When You Issue Material?* in the *Product Costing and Manufacturing Accounting* documentation for information about the impact on costs when issuing material
- ❑ *Confirming Pick Suggestions* in the *Advanced Warehouse Management* documentation for information about how to confirm a pick request
- ❑ *Processing Work Orders and Rate Schedules* for the processing options for Order Processing

Issuing Material by Preflushing

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

Preflushing is the act of recording issue transactions for all material required for a work order when you process the work order using the Order Processing batch program. Materials include those that are not required until the last operation in the routing instructions, 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.

Caution

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 appears in your inventory records because the materials have been deducted from inventory records, but not physically removed from inventory stock.

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

Before You Begin

- Set the issue type code on the parts list. See *Attaching the Parts List Interactively* for details about setting the issue type code.

See Also

- Processing Work Orders and Rate Schedules* for the processing options for Order Processing

Issuing Material Manually

You can use the Inventory Issues program to manually issue material associated with a work order. 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.

If you did not assign serial numbers to any of the assemblies on your work order at order entry, you can assign them during inventory issues.

You issue material from multiple locations when you need to issue material from locations that are different from what is listed on the Inventory Issues form.

► To issue material from a single location

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

1. On Work With Work Order Inventory Issue, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order and click Select.

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Issue #	Item Number	Description	Open Seq#	Issues	Secondary Issues	Request Date	Mt St	Quantity Ordered
<input checked="" type="checkbox"/> 1	5001	Oil	10.00	50		05/31/05	20	
<input type="checkbox"/> 1	5002	Rust Inhibitor	20.00			05/31/05	20	
<input type="checkbox"/> 1	5004	Thinner	20.00			05/31/05	20	
<input type="checkbox"/> 1	5003	Graphite	40.00			05/31/05	20	
								20

3. On Inventory Issue Revisions, review the following fields:

- Mt St
- Quantity Ordered
- UM
- Lot/Serial
- Location

Use the Issue Material for field to issue materials for a parent quantity, which indicates how many sets of parts are needed. The Qty (Quantity) Ordered field indicates the quantity of each component that the system deducts from inventory.

4. To complete the issue process, click OK.

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 Qty (Quantity) Ordered field for the item by the amount of the reversal.

To close out items that you no longer need, change the item and then choose Close Line from the Row menu. The system closes out the item and changes the information in the Description field to **Line Item is Closed**.

You can associate components with a specific serialized assembly during inventory issues. If you do not know the assembly number, use the Assign Serial Numbers program (P3105) to view numbers previously assigned to work order assemblies.

► To issue material from multiple locations

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

This task is only necessary when you need to issue material from locations that differ from what is listed on the Inventory Issues form.

1. On Work With Work Order Inventory Issue, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order and click Select.
3. On Inventory Issue Revisions, complete the following field:
 - Issues
4. Choose an item, and then choose Multi-location from the Row menu.

The screenshot shows the 'Select Multiple Locations' dialog box over a PeopleSoft interface. The dialog has tabs for 'OK', 'Find', 'Cancel', 'Row', and 'Tools'. It contains fields for Line Number (empty), Item Number (5001), Total Selected (50), Quantity Under (empty), Units Ordered (50 GA), Location (empty), Memo Lot 1 (empty), Memo Lot 2 (empty), From Lot (empty), To Lot (empty), and Branch/Plant (M30). Below the dialog is a grid table with columns: Quantity, Secondary Quantity, Location, Lot / Serial, Branch Plant, Available, UM, Secondary Available, Secondary UM, and Based On Date. A single row is selected in the grid, showing values: 50, empty, empty, empty, M30, 0, GA, empty, empty, empty.

5. On Select Multiple Locations, review the default information in the following fields:
 - Quantity
 - Location
 - Lot / Serial
 - Branch/Plant

6. Click OK.

Processing Options for Inventory Issues (P31113)

Edits Tab

Use these processing options to specify the following edits that the system performs when issuing inventory:

- The default document types, routing types, and status codes
- The status beyond which the system cannot issue inventory
- Whether to display an error message if a negative on-hand quantity occurs
- Whether to update the Item Sales History table (F4115)
- From which lot hold codes the system can issue inventory
- Whether to allow unplanned issues

1. Document Type

Use this processing option to specify the default document type that the system enters when issuing inventory. Document type is a user defined code (00/DT) that identifies the origin and purpose of the document. Enter the document type to use as the default value or choose it from the Select User Defined Codes form.

2. Work Order Status Code

Use this processing option to specify the default status code for the issued material on the work order header. Work order status code is a user defined code (00/SS) that identifies the status of the work order that the system uses when a material issue has been performed. Enter the status code to use as the default value or choose it from the Select User Defined Codes form. If you leave this field blank, the system does not update the work order header status code.

3. Material Status Code

Use this processing option to specify the default material status code that the system uses on the work order header. Material status code is a user defined code (31/MS) that identifies the status of the material to use when the system issues material. Enter the status code to use as the default value or choose it from the Select User Defined Codes form. If you leave this field blank, the system does not enter a material status code.

4. Work Order Status Code Limit

Use this processing option to specify the default work order status code that

the system uses on the work order header. Work order status code limit is a user defined code (00/SS) that identifies the status of the work order beyond which the system cannot issue material. Enter the status code to use as the default value or choose it from the Select User Defined Codes form.

5. Negative Quantity on Hand

Use this processing option to specify whether the system displays an error message when the material issued sets the on-hand quantity to a negative amount. Valid values are:

- 1 The system displays an error message for negative on-hand quantities.
- Blank The system does not display an error message for negative on-hand quantities.

6. Item Sales History

Use this processing option to specify whether the system updates the Item Sales History table (F4115) when you issue material. Valid values are:

- 1 The system updates the Sales Item History table.
- Blank The system does not update the Sales Item History table.

7. Lot Hold Codes

a. Lot Hold Code #1

Use this processing option to specify one of five lot hold codes to which the system issues inventory. Enter a hold code, an asterisk, or leave this field blank. If you enter an asterisk in this field, the system issues inventory to all held lots. If you leave this field blank, the system does not issue inventory to held lots.

b. Lot Hold Code #2

Use this processing option to specify one of five lot hold codes to which the system issues inventory. Enter a hold code, an asterisk, or leave this field blank. If you enter an asterisk in this field, the system issues inventory to all held lots. If you leave this field blank, the system does not issue inventory to held lots.

c. Lot Hold Code #3

Use this processing option to specify one of five lot hold codes to which the system issues inventory. Enter a hold code, an asterisk, or leave this field blank. If you enter an asterisk in this field, the system issues inventory to all held lots. If you leave this field blank, the system does not issue inventory to held lots.

d. Lot Hold Code #4

Use this processing option to specify one of five lot hold codes to which the system issues inventory. Enter a hold code, an asterisk, or leave this field blank. If you enter an asterisk in this field, the system issues inventory to all held lots. If you leave this field blank, the system does not issue inventory to held lots.

e. Lot Hold Code #5

Use this processing option to specify one of five lot hold codes to which the system issues inventory. Enter a hold code, an asterisk, or leave this field blank. If you enter an asterisk in this field, the system issues inventory to all held lots. If you leave this field blank, the system does not issue inventory to held lots.

8. Unplanned Issues

Use this processing option to specify whether the system processes unplanned issues. Valid values are:

- 1 The system processes unplanned issues.
- Blank The system does not process unplanned issues.

9. Purchase Order Document Type

Use this processing option to specify the default document type of the

purchase order associated with the simultaneous issue and receipt of material.

Purchase order document type is a user defined code (00/DT) that identifies the document type that the system uses when searching for an open purchase order. Enter the document type to use as default value or choose it from the Select User Define Codes form. If you leave this field blank, the system uses OP as the document type.

10. Receipt Routing Route Type (FUTURE)

Use this processing option to specify the default route type associated to the simultaneous issue and receipt of material into inventory. Receipt routing route type is a user defined code (43/RY) that identifies the route type that the system uses when receiving an item into inventory with a receipt routing.

Enter a route type to use as the default value or choose it from the Select User Defined Codes form.

11. Route Type

(FUTURE)

Use this processing option to specify the default route type associated to the

simultaneous issue and receipt of material into inventory. Route type is a user defined code (43/RC) that identifies the route type that the system uses when receiving an item into inventory without a receipt routing. Enter a route type to use as the default value or choose it from the Select User Defined Codes form.

Display Tab

Use these processing options to specify whether the system displays only the components with valid issue type codes, displays only specified operations, disables the lot number field, and enters the quantity issued.

1. Issue Type Code

Use this processing option to specify whether the system displays all components or only components with a valid issue type code. Valid values are:

- 1 The system displays only components with valid issue type codes.
- Blank The system displays components of all issue type codes.

2. Operation Sequence

Use this processing option to specify whether the system displays only operation sequences that equal the specified operation sequence. Valid values are:

- Blank The system begins the display with the specified operation sequence.
- 1 The system displays only operation sequences that equal the specified sequence.

3. Requested Date

Use this processing option to specify whether the system displays only operation sequences that equal the specified requested date. Valid values are:

- Blank The system begins the display with the operation sequence with the equivalent requested date.
- 1 The system displays only operation sequences that equal the specified requested date.

4. Lot Number

Use this processing option to specify whether the system protects the Lot Number field from entry. Valid values are:

- 1 The system does not allow you to enter a value in the Lot Number field.

Blank The system allows you to enter a value in the Lot Number field.

5. Issue Material For

Use this processing option to specify whether the system enters the recommended issued quantity for all components with a valid issue type code.

The system uses the value from the Issue Material For field on the Work With Work Order Inventory Issue form. The system issues only items with an issue quantity. Valid values are:

1 The system automatically enters the quantity.

Blank The system does not enter the quantity.

Versions Tab

Use these processing options to specify the versions of the following programs that the system uses when issuing inventory:

- Shortage Maintenance (P3118)
- Purchase Order Inquiry (P3160W)
- Purchase Order Receipts (P4312)
- Receipt Routing Movement and Disposition (P43250)

Versions control how the programs display information. Therefore, you might need to set the processing options to specific versions to meet your needs.

1. Shortage Maintenance (P3118)

Use this processing option to specify the version that the system uses when you choose the row exit to the Shortage Maintenance program (P3118) from the Inventory Issue Revisions form. If you leave this field blank, the system uses the ZJDE0001 version of the Shortage Maintenance program.

Versions control how the Shortage Maintenance program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

2. Open Purchase Orders (P3160W)

Use this processing option to specify the version that the system uses when you choose the row exit to the Purchase Order Inquiry program (P4310) from the Inventory Issue Revisions form. If you leave this field blank, the system uses the ZJDE0001 version of the Purchase Order Inquiry program.

Versions control how the Purchase Order Inquiry program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

3. PO Receipts (P4312)

Use this processing option to specify the version that the system uses when you choose the row exit to the Purchase Order Receipts program (P4312) from the Inventory Issue Revisions form. If you leave this field blank, the program uses the ZJDE0008 version of the Purchase Order Receipts program.

Versions control how the Purchase Order Receipts program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

4. Movement and Disposition (P43250)

Use this processing option to specify the version that the system uses when you choose the row exit to the Receipt Routing Movement and Disposition program (P43250) from the Inventory Issue Revisions form. If you leave this field blank, the program uses the ZJDE0002 version of the Receipt Routing Movement and Disposition program.

Versions control how the Receipt Routing Movement and Disposition program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

Equipment Management Tab

Use these processing options to specify how the system issues inventory when using Equipment/Plant Management work orders only.

1. Equipment/Plant Management

Use this processing option to specify whether the system processes a maintenance work order. Valid values are:

- Blank The system processes material for a manufacturing work order.
- 1 The system processes material for a maintenance work order.

If you use this processing option, specify whether the system enters the work order number in the subledger field of the journal entry in the Work Order Number processing option. The system creates the journal entry when it processes the Work Order Number processing option.

2. Work Order Number

Use this processing option if you choose to process maintenance work orders in the Run Equipment/Plant Management processing option. Also, use this processing option to specify whether the system enters the work order number in the subledger field of the journal entry when the system processes the maintenance work order. Valid values are:

- 1 The system automatically enters the work order number in the subledger field.
- Blank The system does not enter the work order number in the subledger field.

Interoperability Tab

Use this processing option to specify the default transaction type that the system uses for processing export transactions.

1. Transaction Type

Use this processing option to specify the transaction type that the system uses for export processing. Transaction type is a user defined code (00/TT) that identifies the type of transaction for the work order. Enter the transaction type to use as the default value or choose it from the Select User Define Code form. If you leave this field blank, the system does not use export processing.

Recording Component Scrap

You can use the Component Scrap program to record scrapped quantities of component items in the Item Ledger File table (F4111) and the Work Order Parts List table (F3111). The Item Ledger provides an audit trail of the quantity scrapped and the reason for the scrap transaction.

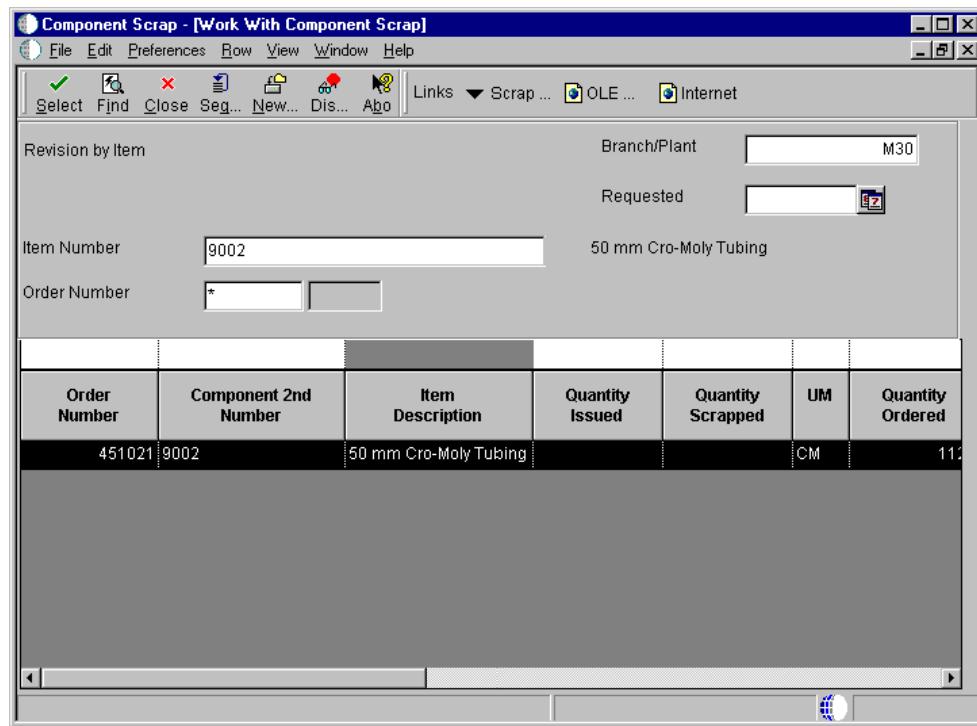
When you use the Component Scrap program, note the following important information:

- You cannot scrap components unless they have been issued to a work order.
- The total quantity that is scrapped for a component cannot exceed the total quantity that is 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 is converted to the unit of measure of the parts list and rounded to one whole unit of measure when the system updates the Work Order Parts List table (F3111).

The system uses the order number information from the Work Order Master File table (F4801) and the component information from the Work Order Parts List table (F3111).

► To record component scrap

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



1. On Work With Component Scrap, complete the following field and click Find:
 - Item Number
2. Choose the appropriate order and click Select.

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	Component 2nd Number	Issued	Scrapped	Quantity To Scrap	UM	Reason Code	Explanation	Date	Description
<input checked="" type="radio"/>	8001				CM			08/27/03	250 mm Cr
<input type="radio"/>	9002				CM	.	.	08/27/03	500 mm Cr
<input type="radio"/>	9004				CM	.	.	08/27/03	500 mm Cr

3. On Component Scrap Revisions, complete the following optional fields and click OK:
 - Quantity To Scrap
 - Reason Code
 - Explanation
 - Date

See Also

- *What Happens When You Record Component Scrap in the Product Costing and Manufacturing Accounting documentation*

Processing Options for Component Scrap (P31116)

Process

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

Processing Mode

2. Enter the Status Code beyond which Component Scrap cannot be made. Blank means no restriction for Component Scrap.

Defaults

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

Transaction Date

3. Default Reason Code.

Reason Code

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

Document Type

SN Processing

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

Working with Material Movement

For Repetitive Manufacturing, while the requirements for material are 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 menu options manage the electronically implemented kanbans: Kanban Consumption and Kanban Supply.

You can process outside assemblies using the Working With Kanban Masters form. Kanbans that have an outside assembly have a source type of 4 (outside assembly). When you check out a kanban with an outside assembly, the system creates a purchase order for the end item and a sales order for the components. When you check in the kanban, the system confirms the shipment, purchase receipts, and completes the inventory transfer.

Processing Kanban Consumption by Item

Kanban Consumption allows you to access all kanbans at a specified consuming location. After you locate 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**

From the Daily Processing - Repetitive menu (G3115), choose Kanban Consumption.

	Kanban ID	Card Number	Kanban Status	2nd Item Number	Transaction Quantity	UM	Container Size	Kanban Size	Consuming Location
<input checked="" type="checkbox"/>	588	1 1	2037	60	EA	60	60	60 LA.80.	
<input type="checkbox"/>	600	1 1	2037	60	EA	60	60	60 LA.80.	

1. On Work With Kanban Masters, complete the following fields and click Find:
 - Consuming Branch
 - Item Number
 - Consuming Location
2. To check in a kanban that was supplied by the production line (and for which a rate or work order was created), complete the following fields on the Defaults tab:
 - Shift
 - Employee Number

The system displays a Confirmation form that permits you to confirm or cancel your kanban transaction.
3. Choose the appropriate Kanban ID row and then choose Check In from the Row menu.
4. To check out a kanban, choose the appropriate Kanban ID row and then choose Check out from the Row menu.

Processing Kanban Supply by Item

Kanban Supply allows you to access all kanbans that need replenishment for items stored or produced at a specified supplying location. After you locate 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 as follows:
 - The quantity is completed to the supplying location and the kanban status is changed to complete (3).
 - After the quantity has been physically 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

From the Daily Processing - Repetitive menu (G3115), choose Kanban Supply.

1. On Work With Kanban Masters, complete the following fields and click Find:
 - Supplying Branch
 - Item Number
 - Supplying Location
2. On the Defaults tab, complete the following fields to check in a kanban that was supplied by the production line (and for which a rate schedule or work order was created):
 - Shift
 - Employee Number
3. Choose the appropriate Kanban row and choose Check In from the Row menu.
4. Click OK.

Processing Options for Kanban Processing (P3157)

Mode

1. Enter a '1' to set mode to Kanban Supply. If left blank, Kanban Consumption mode is assumed.
2. Enter a '1' to prompt the confirmation of a transaction.
3. Enter Kanban Status to display, if left blank all statuses are displayed.

Defaults

1. Item Number(Optional).
2. Location(Optional).
3. Enter number of hours equivalent to one day. Default is 8.
4. Enter the Closed Status for a rate schedule or work order. (Default is '99').
5. Bill of Material Type. If left blank, 'M' is used.
6. Employee Number (Optional).

Process

1. Enter a '1' to automatically call Work Order Processing (R31410) when a work order is created.
 2. Enter a '1' to perform a blind execution of Hours & Quantities.
 3. Enter a '1' to perform a blind execution of Material Issues.
 4. Enter a '1' to perform a blind execution of Work Order Completions.
 5. Enter a '1' to perform a blind execution of Shipment Confirmation.
-

-
- 6. Enter a '1' to perform a blind execution of Inventory Transfers.

Purchasing

- 1. Enter a '1' to create a Purchase Order
- 2. Enter a '1' to trigger an EDI 862 Transaction

Versions

Enter the version for the following programs. If left blank ZJDE0001 is used unless specified otherwise.

- 1. Rate Header Maintenance (P3109)
 - 2. Part Availability (P30205)
 - 3. Work Order Entry (P48013)
 - 4. Work Order Processing (R31410)
 - 5. Open Orders Inquiry (P3160W)
 - 6. Purchase Orders Entry (P4310)
 - 7. Purchase Order Print (R43500). Used to generate an EDI 862 transaction. If left blank, XJDE0011 is used.
 - 8. Purchase Order Receipts (P4312). To be called in blind mode. If left blank, ZJDE0008 is used.
 - 9. Super Backflush (P31123)
 - 10. Hours & Quantities (P311221)
 - 11. Material Issues (P31113)
 - 12. Work Order Completions (P31114)
 - 13. Inventory Transfers (P4113)
 - 14. Sales Order Entry (P4210)
 - 15. Shipment Confirmation(P4205)
-

Work Orders and Rate Schedules

Work Order Scheduling and Rate Schedules

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

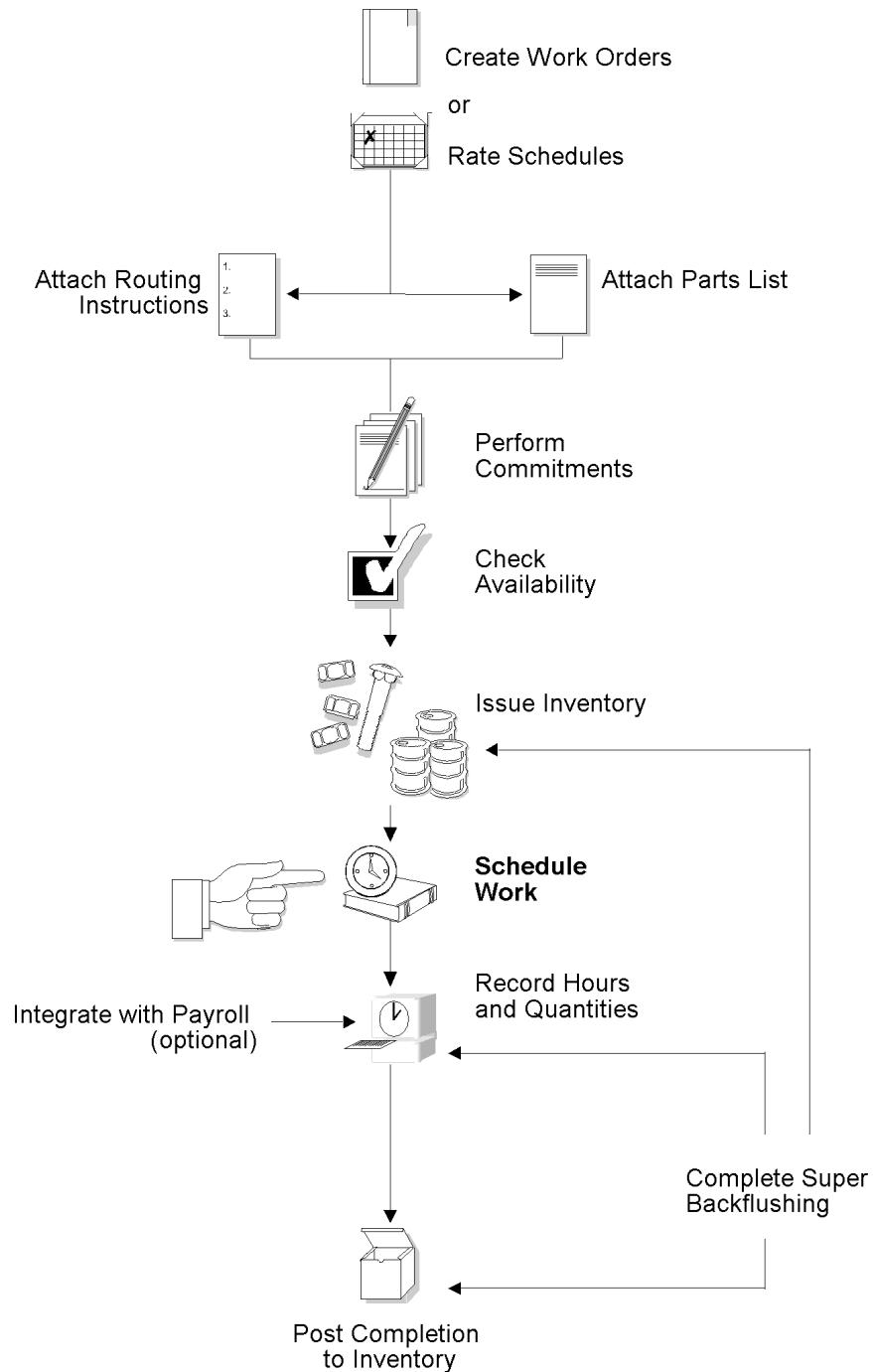
Processing options also determine the default values for various fields and control which versions of associated programs are used when you access them. You can also access related information, such as associated work orders, sales orders, purchase orders, parts lists, and routing instructions.

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

Note

If you use the Capacity Requirements Planning system, it reads the routing instructions for work orders and rate schedules and monitors the load on the involved work centers. This allows you to manage the loads on your work centers to maximize production and meet scheduled demand.

The following graphic illustrates the entire shop floor from the creation of work order or rate headers to completion. The hand in the graphic indicates the point in the process where you schedule work orders and rates.



See Also

- Leadtimes* for information about how the system calculates leadtime for a work order

Working with Work Order Scheduling

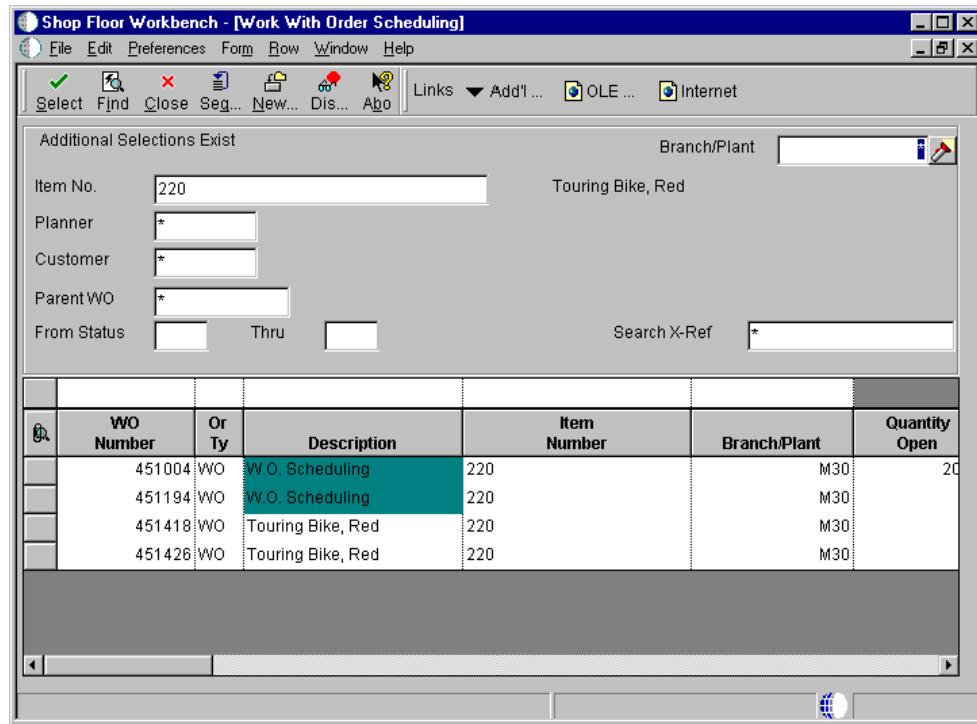
You review work orders to check capacity at each work center through which the order is scheduled. Then, you print scheduling information and run the production in a work center.

Reviewing Work Order Information

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

► To review work order information

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



1. On Work With Order Scheduling, complete the following field and click Find:
 - Branch/Plant
2. Choose a work order number and click Select.

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Select Workspace: Active Foundation

Active Foundation

Work Order Status Update

WO Status Additional WO Data

Or No/Ty/Co	451004	WO	00200	Touring Bike, Red	
Item Number	220			Branch/Plant	M30
Lot/Serial				Transaction	Secondary
Search Cross-Ref.				UOM	EA
Requested Date	06/28/05			Ordered	2000
Start Date	06/24/05			Quantity Open	2000
				Completed	
				Scrapped	
Status Updates					
Status	40	Started Labor or Material	Flash Msg	1	W.O. Scheduling
Type	S	Shop Order	Freeze Y/N	N	Do not freeze the order.
Priority	1	Emergency	Sequence		

3. On Work Order Status Update, complete the following optional fields and click OK:
 - Status
 - Type
 - Priority
 - Flash Msg
 - Freeze Y/N
 - Sequence

Processing Options for Shop Floor Workbench (P31225)

Status/Item

1. Select Status Range or Item
- From WO Status
Thru WO Status
Item Number
Item Cross Reference
Addresses
1. Select Planner and/or Customer
- Address Number-Planner
Address Number-Customer
Categories
1. Select WO Categories
- WO Type

WO Priority
Phase (Category 1)
Category 2
Category 3
Document
1. Select WO Document Type
WO Document Type
Versions
1. Note: Versions will default to ZJDE0001
Sales Order Inquiry Version
Purchase Order Inquiry Version
Work Order Completions Version
Super Backflush Version
Inventory Issues Version
Work Order Entry Version
Sales Order Entry Version
Purchase Order Entry Version
Work Order Parts List Version
Work Order Routing Version

See Also

- Leadtimes* for information about how the system calculates leadtime for a work order

Printing Scheduling Information for Work Centers

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

Use Dispatch List to plan and run the production in a work center. The Dispatch List report includes scheduling information for a work center that appears on Dispatch List Inquiry.

The system retrieves the scheduling information for the work centers from the Work Order Master File table (F4801) and the Work Order Routing table (F3112).

Working with Rate Schedules

The driving force for repetitive manufacturing is demand. Scheduling a production line requires tools to schedule, sequence, and balance production, based on the capacity for each production line.

Note

Users of the J.D. Edwards Quality Management system can access the Test Results Revisions form from the Completions Workbench program (P3119). This is helpful when you manage repetitive information and complete quantities to inventory for items that require testing. See *Entering Test Results* in the *Quality Management Guide*.

Scheduling Items on a Production Line

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 in daily buckets about both firmed and planned rates and work orders. After you manually revise the scheduled

quantities, you can firm the schedule. Use start and through dates to show the workdays 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 workdays within the specified date range. From the workbench you can access the following forms:

- Alternate Line Selection
- Split Lines
- Production Status
- Item Availability
- Master Schedule

Use Split Lines to move scheduled quantities from one line to another. You can use any of the following methods:

- Splitting production among two lines, which might create a schedule on the new line
- Consolidating production from two lines to one line
- Transferring production from one line to another

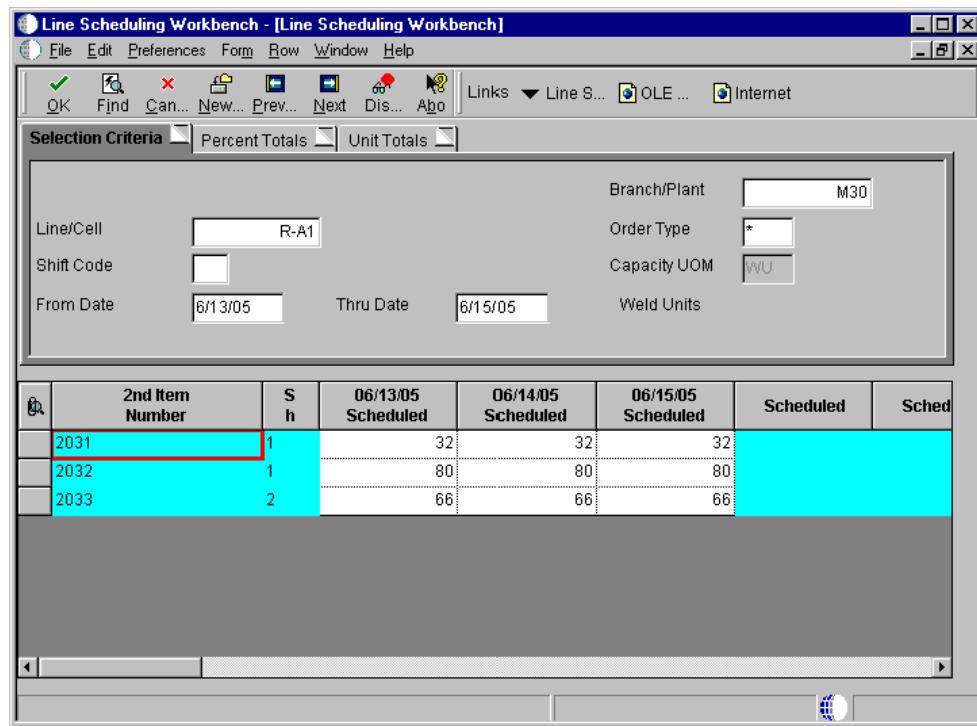
Use Alternate Line Selection to view all lines for which line or item relationships exist for the item.

Note

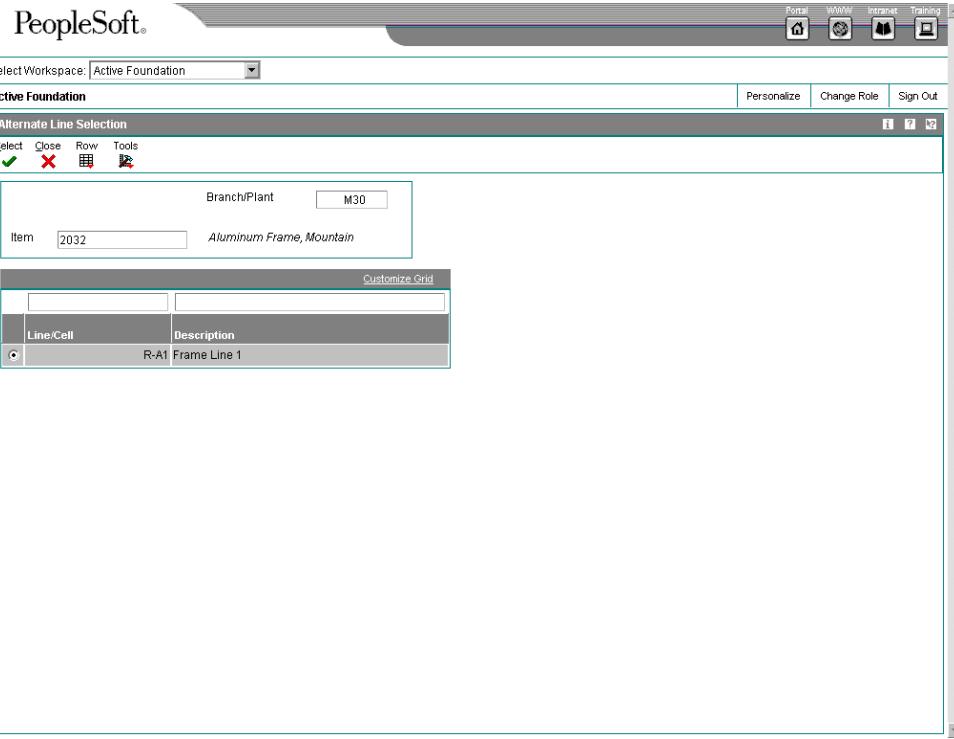
The system highlights over-capacity values.

► To schedule items on a production line

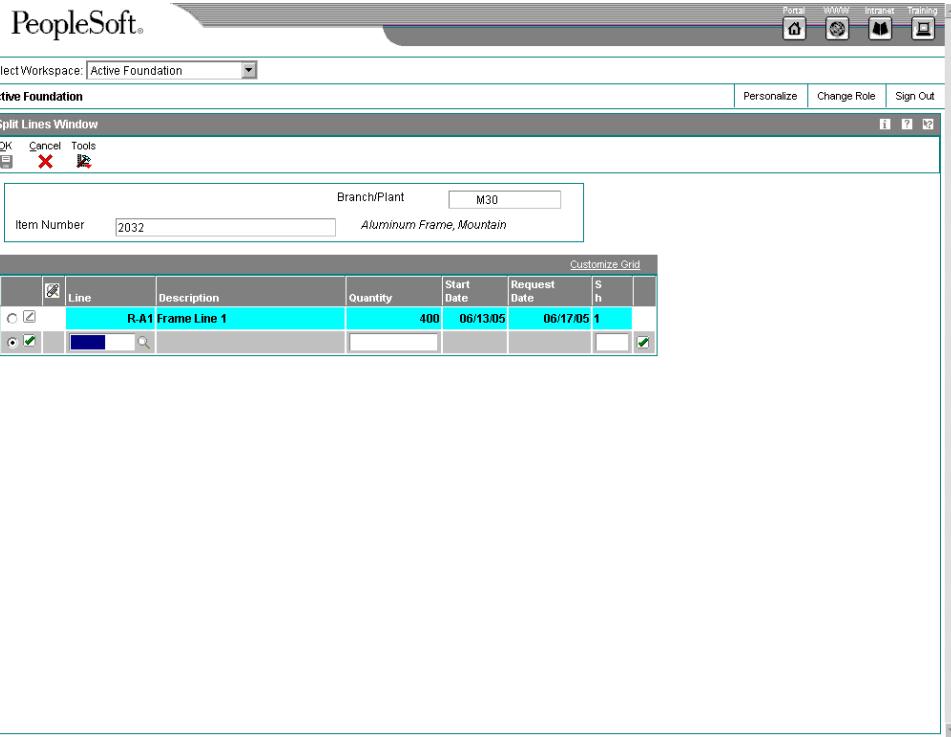
From the Daily Processing - Repetitive menu (G3115), choose Line Scheduling Workbench.



1. On Line Scheduling Workbench, complete the following fields:
 - Branch/Plant
 - Line/Cell
2. Complete the following optional fields and click Find:
 - From Date
 - Thru Date
3. Change any scheduled quantity as needed.
 If you change the total quantity and update the schedule, the system displays a warning before it spreads the new quantity evenly across the date range. You must update the schedule before the system changes the record.
4. To specify an alternate line, choose a record, and then choose Alternate Line from the Row menu.



5. On Alternate Line Selection, choose the alternate line that you want to select and click OK:
6. On Line Scheduling Workbench, choose a record, and then choose Split Lines from the Row menu to move quantities.



7. On Split Lines Window, complete the following fields to move scheduled quantities from one line to another:
 - Line/Cell
 - Quantity Ordered
8. To specify shift and date information, complete the following fields:
 - Request Date
 - Start Date
 - S h
9. To complete the split, click OK.

Processing Options for Line Scheduling Workbench (P3153)

Defaults

1. Enter the Status Code to use when Firming rates and/or work orders.
2. Enter the Order Type to use for data selection. (Optional)
3. Enter the Shift Code to use for data selection. (Optional)
4. Enter the number of days to add to today's date when defaulting the Thru Date. (Optional)

Display

1. Status Code used to exclude closed rates from the workbench. (Default '99')
2. Enter a '1' to display PLANNED rates and work orders.

Versions

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

-
1. Production Status (P31226)
 2. Line Sequencing Workbench (P3156)
 3. Split Lines Window (P3156W)
 4. Enter/Change Rate Schedule (P3109)
 5. Supply/Demand Inquiry (P4021)
 6. Message File Revisions (P3411)
 7. Sales Order Entry (P4210)
 8. Rates/Manufacturing Work Orders (P48013)
- Enter the version to be used. If left blank, ZJDE0004 will be used.
9. Part Availability (P30200)
-

Sequencing Rates by Classification Scheme

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 before the system changes the record. You can use the following criteria to sequence the rates:

- Category code
- Sequence number

The category code values are determined by the processing options for the Enter/Change Rate Schedule. Beginning with the first shift and day, the program forward schedules 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 that exceed the capacity available, within the date range selected, in the last shift of the last day.

For sequence number, beginning with the first shift and day, the program forward schedules the quantities, which consumes the available capacity. When created, a new rate has an initial sequence number of 999999, which causes the rate to be sequenced last for the shift, placing it after any previously sequenced rates. You can manually override the default sequence. You do this by changing the sequence number value of either the new rate, an existing rate, or both. Keep in mind that the status of the new rate cannot be greater than the rate status value on the Manufacturing Constants Revision form. After revising the sequence, you can update the schedule as is, or forward schedule it again.

► To schedule rates by classification scheme

From the Daily Processing - Repetitive menu (G3115), choose Line Sequencing Workbench.

1. On Sequencing Workbench, complete the following fields:

- Branch/Plant
- Line/Cell

2. Complete the following optional fields and click Find:

- Effective From
- Thru

3. To change the sequence of the rate, complete the following fields as needed and click OK:

- S h
- Seq#

Processing Options for Line Sequencing Workbench (P3156)

Process

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 of the day.

NOTE: In order to schedule across days, scheduling across shifts must be allowed.

Defaults

1. Enter the number of days to add to today's date for the Effective Thru Date. (Optional)
 2. Enter the Status Code used to exclude closed rates from the Workbench. (Default is '99').
-

Hours and Quantities

Hours and Quantities

As you produce the items on a work request, you need to record the hours spent on production and the number of items (or co-products and by-products for Process Manufacturing) that are completed in that time. This allows you to monitor progress and actual costs and compare them to the standard hours and quantities that you estimated for the job.

If your estimates are reasonably accurate, you can have the system automatically enter the standard values for you at various points in the routing instructions by using the Super Backflush program (P31123). Or, you can have all employees individually enter their time and quantities completed.

The Shop Floor Management system interfaces with the J.D. Edwards Payroll system so that you must enter an employee's hours and quantities produced only once. The single entry saves time, reduces the risk of data entry error, and ensures that data across your enterprise is consistent.

The system records hours and quantities in the Payroll system and also in a work order in the Manufacturing system. The hours and quantities can be applied to a specific work order so that you can maintain accurate manufacturing accounting and costing data. You can record hours and quantities per work order or per employee, to accommodate both piecework and hourly-rate employees.

The Shop Floor Management system manages hour and quantity information in the same manner whether you enter it on the Time Entry Revisions form or on the time entry form in the Payroll system. If you use the Payroll system in conjunction with the Shop Floor Management system, you should use the time entry form in Payroll to enter hours and quantities information.

After you enter hours and quantities on either time entry form, 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 by printing a report.

Note

When you change the status of an operation that is a routing instruction, the change does not take effect until you run the Hours and Quantities Update to update the Work Order Routing table (F3112).

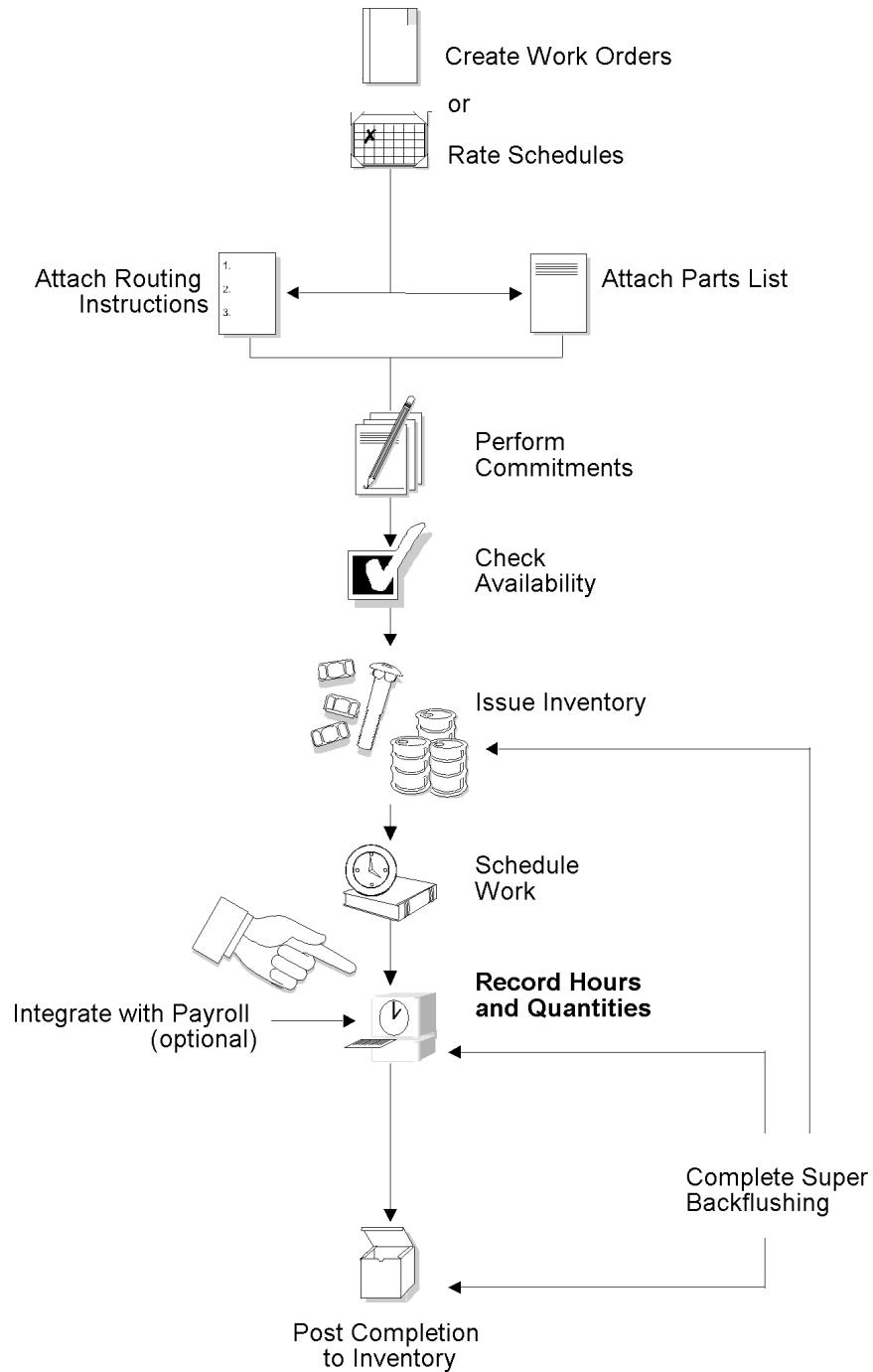
The system stores header information on the Work With Work Order Time Entry form in the Work Order Master File table (F4801). The system stores detail information in the Work Order Time Transactions table (F31122).

If you use the Quality Management System, as you record actual hours and quantities to a work order, you can do the following:

- 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

The following graphic outlines the entire process from the creation of a work order or rate schedule header through completion. The hand indicates the point in the process when you enter hours and quantities.



See Also

- What Happens When You Record Hours and Quantities?* in the *Product Costing and Manufacturing Accounting* documentation
- Working with Test Results* in the *Quality Management* documentation

Entering Hours and Quantities

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 either of the following formats:

Order number format	This format records time and quantities for employees by routing instruction step.
Employee number format	This format records time and quantities for the routing instruction steps by employees.

Note the following important information about entering hours and quantities:

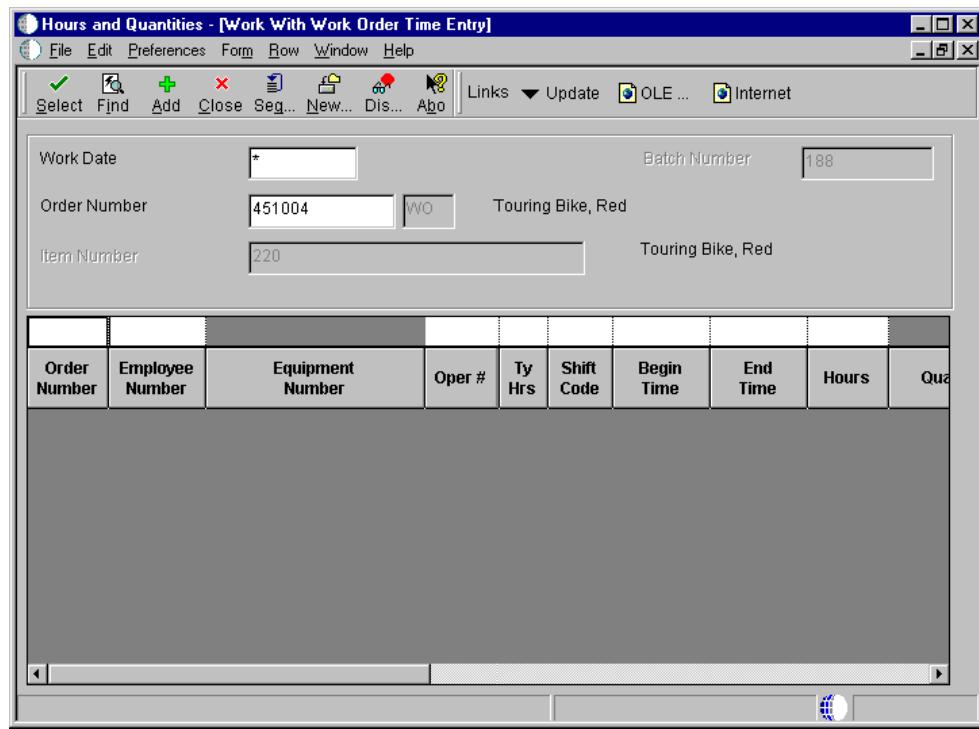
- Enter the quantity completed only once per operation sequence number. Entering it for each type of hours will cause a variance amount.
- Enter hours using beginning and ending times for each entry or the actual hours, up to two decimal places.
- To reverse completed or scrapped quantities that you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

Note

When you set the Manufacturing Time Entry processing option on the Manufacturing tab for the Payroll Time Entry program, the processing option simultaneously updates your entries in the payroll system and the Work Order Time Entry (P311221).

► To enter hours and quantities

From the Daily Order Reporting - Discrete menu (G3112), choose Hours and Quantities.



1. On the Work With Work Order Time Entry, complete the following fields and click Find:
 - Work Date
 - Order Number
2. To enter hours and quantities, click Add.

PeopleSoft®

Order Number	Employee Number	Oper #	Ty Hrs	Shift Code	Begin Time	End Time	Hours	Quantity	UM	St	Employee Name	Misc. Dollars
<input checked="" type="checkbox"/> 451004												

3. On Time Entry Revisions, complete the following mandatory fields and click OK:

- Employee Number
- Shift Code
- Hours
- Quantity

4. Complete the following fields:

- Equipment Number
- Oper #
- Ty Hrs
- UM
- St
- Employee Rate
- Equipment Rate
- Reason Code

5. Click OK.

Processing Options for Hours and Quantities (P311221)

Display

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.

Defaults

1. Enter the Document Type associated with Shop Floor Activity.

Edits

1. Enter the Status Code beyond which Shop Floor Activity cannot be entered.
2. 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.
3. Enter a '1' to block employee rate being written to screen. Leave blank to show employee rates.

Versions

Enter the version for each application. If left blank, ZJDE0001 will be used.

1. Test Results Revisions (P3711)

2. Manufacturing Scheduling Workbench (P31225)

3. Production Status (P31226)

4. Hours and Quantities Update (R31422) (Default - XJDE0001)
-

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 program updates the Work Order Routing table (F3112) and supplies the manufacturing accounting programs with the current data. Before the data is updated, you can locate and change it as necessary. After you run this program, you cannot locate the data on the Time Entry Revisions form.

You can post hours and quantities transactions by either of the following methods:

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

The method of posting that you use depends on how you enter the transaction data, as follows:

- If you use the Super Backflush program to enter hours and quantities, the quantities transactions are posted in real time. However, you must run the Hours and Quantities Update program to post the hours. Super Backflush enters the transactions for you at the point in the routing that you specify instructions.
- If you use the Super Backflush program, you must either run the update program, or locate the data on the Time Entry Revisions form and then use the online update selection from the Form menu.
- If you enter the transaction data on the Time Entry Revisions form, you can use the Form menu selection or run the update batch program.

Updating Hours and Quantities Manually

The system posts only the records that are in the current entry session. Therefore, if you exit the Super Backflush form after you enter the transaction data, you must locate the data on the Time Entry Revisions form and change the records to make them current with the system.

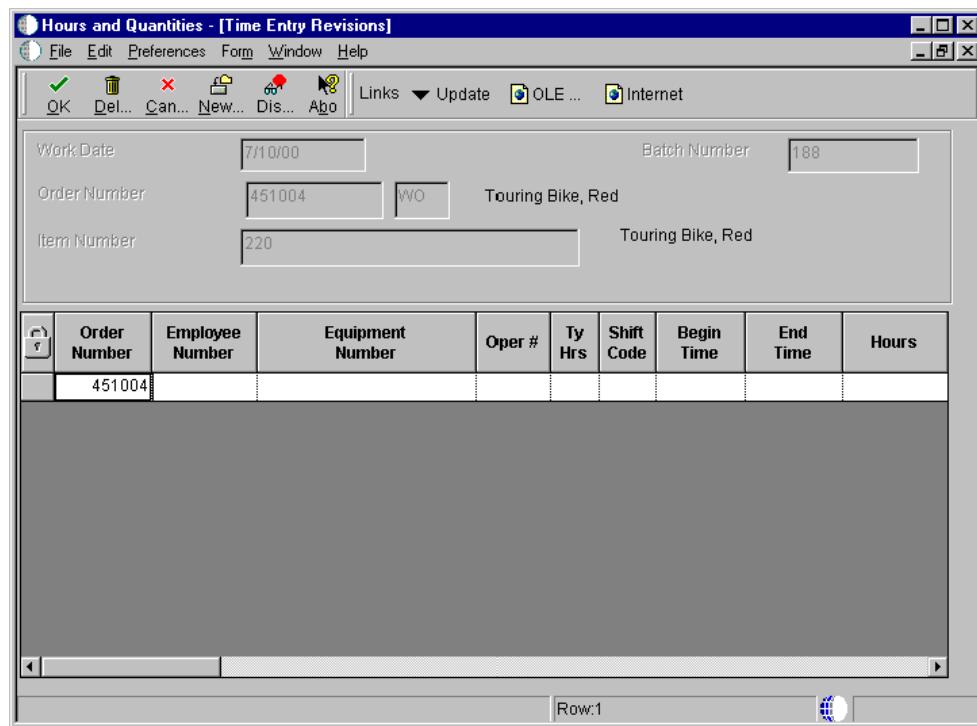
The system updates the hours and quantities that are recorded against work order operations to their matching fields in the Work Order Routing table (F3112). After the update, the form clears, and the records that were processed no longer appear. The system enters a P in the

Processed Code field for each entry that it updates so that the record cannot be updated again.

► To update hours and quantities manually

From the Daily Order Reporting - Discrete menu (G3112), choose Hours and Quantities.

1. On Work With Work Order Time Entry, complete the following fields and click Find:
 - Work Date
 - Order Number
2. Choose the row with the appropriate operation and employee number and click Select.



3. On Time Entry Revisions, choose the rows (or records) to update and then choose Update from the Form menu.

See Also

- *Entering Hours and Quantities* to review the processing options for Hours and Quantities

Updating Hours and Quantities by Batch

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

You should update only those records that have not yet been posted. Records that have not been posted have a blank Processed Code field. Run the update program to post the transactions. Use data selection to update those records that have not yet been posted. The system retrieves the hours and quantities information from the Work Order Time Transactions table (F31122).

Processing Options for W.O. Hours and Quantities Update (R31422)

Interop

1. Transaction Type

A specific transaction type

Blank = No outbound transaction processing

2. Outbound Subsystem UBE

1 = The UBE will be called

Blank = The UBE will not be called

CSMS

1. CSMS Journal Entries

1 = Create CSMS journal entries

Blank = Do not create CSMS journal entries

2. Flex Accounting

1= Use flex accounting

Blank = Do not use flex accounting

3. General Ledger Date

A specific date

Blank = Use today's date

4. Subledger

1 = Default order number

Blank = Do not default order number

5. Document Type

A specific document type

Blank = Default 'IH'

Reviewing Statuses and Transactions

After you enter hours and quantities you can review the information either online or by printing a report.

Reviewing the Status of Hours

You can review work order information before you enter hours in the system. You can display the actual hours for machine, labor, and setup hours entered for each operation associated with a work order. You can also access the Work Order Status - Hours Revisions form, where you can review the actual, standard, and variance values for the hours. You can update these values for the operation.

Before You Begin

- Before the system displays entries on the status form, you must do one of the following:

- Enter the hours on the Time Entry Revisions form and run the Hours and Quantities Update.
- Use the online update function to post the entries.

► To review the status of hours

From the Daily Order Reporting - Discrete menu (G3112), choose Order Hours Status.

Oper Seq#	Description	Actual Machine Hours	Actual Labor Hours	Actual Setup Hours	Op St
10.00	Assembly				
20.00	Assembly				
30.00	Assembly				
40.00	Assembly				
50.00	Test / Inspect				
60.00	Package				

1. On Work With Work Order Status - Hours, complete the following field and click Find:
 - Order Number
2. Choose an operation sequence number and click Select.

	Machine	Labor	Setup
Actual	<input type="text"/>	<input type="text"/>	<input type="text"/>
Standard	<input type="text"/>	5.00	<input type="text"/>
Variance	<input type="text"/>	5.0000	<input type="text"/>
Variance %	<input type="text"/>	100.00	<input type="text"/>

3. On Work Order Status - Hours Revisions, review the Actual, Standard, Variance, and Variance % fields under the Machine, Labor, and Setup headings, and click OK.

Reviewing the Status of Quantities

You can display the quantities entered against the operations scheduled for a work order, including the actual quantity ordered, completed, and scrapped for each operation. You can also access the Quantities Revision form, where you can review the actual, standard, and variance values for the quantities. You can update these values for the operation.

Before You Begin

- ❑ Before the system displays entries on the status form, you must do one of the following:
 - Enter the hours on the Time Entry Revisions form and run the Hours and Quantities Update.
 - Use the online update function to post the entries.
 - See *Updating Hours and Quantities*.

► To review the status of quantities

From the Daily Order Reporting - Discrete menu (G3112), choose Order Quantities Status.

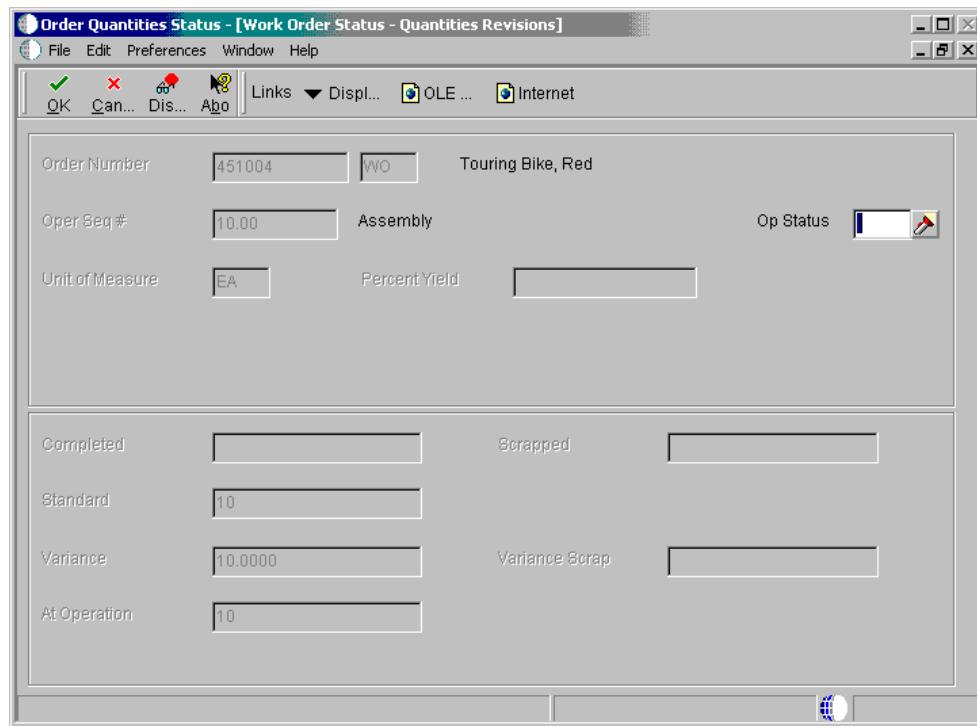
Order Quantities Status - [Work with Work Order Status - Quantities]

File Edit Preferences Form Row Window Help

Select Find Close Beg... New... Dis... Abo Links WO C... OLE... Internet

Date Req'd	6/28/2005	Branch/Plant	M30				
Order Number	451004	WO	Touring Bike, Red				
Item Number	220	Touring Bike, Red					
Qty Ordered	2000	EA					
Qty Complete	2	Projected Comp. 12,000.00					
Qty Scrapped		Projected Yield % 600.00					
Oper Seq#	Description	Quantity Completed	Quantity Scrapped	UM	Op St	Percent Yield	
10.00	Assembly			EA			
20.00	Assembly			EA			
30.00	Assembly			EA			
40.00	Assembly			EA			
50.00	Test / Inspect			EA			
60.00	Package			EA			

1. On Work with Work Order Status - Quantities, complete the following field and click Find:
 - Order Number
2. Choose an operation sequence number and click Select.



3. On Work Order Status - Quantities Revisions, review the following fields and click OK:
 - Completed
 - Standard
 - Variance
 - At Operation
 - Scrapped
 - Variance Scrap

Reviewing the Status of Operation Quantities

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

► To review the status of operation quantities

From the Daily Order Reporting - Discrete menu (G3112), choose Operation Quantity Inquiry.

Operation Quantity Inquiry - [Work With Operation Quantities]

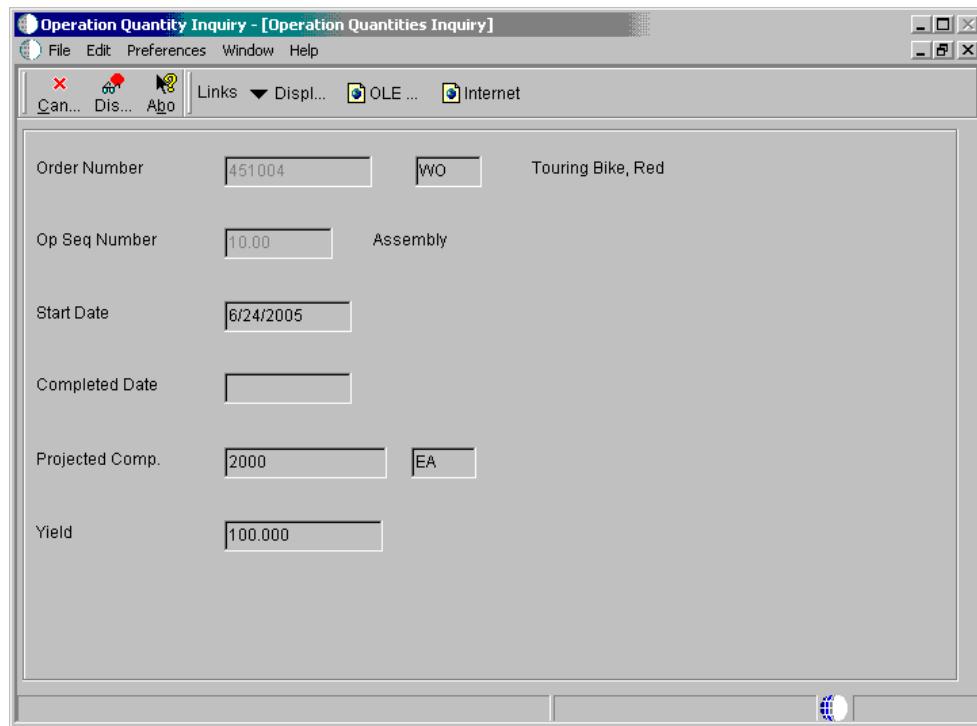
File Edit Preferences Window Help

Select Find Close Beg... New... Dis... Abo Links Disp... OLE... Internet

Order Number	451004	WO	Branch/Plant	M30
Item Number	220	Touring Bike, Red		
Date From	6/15/1998	Thru	Projected Comp.	12000 EA
Status From		Thru	Projected Yield	600.0000

Order Number	Or Ty	Oper Seq#	Op St	Description	Quantity at Operation	Quantity Completed	Quantity Scrapped
451004	WO	10.00		Assembly	10		
451004	WO	20.00		Assembly	10		
451004	WO	30.00		Assembly	10		
451004	WO	40.00		Assembly	10		
451004	WO	50.00		Test / Inspect	10		
451004	WO	60.00		Package	10		

1. On Work With Operation Quantities, complete the following fields and click Find:
 - Branch/Plant
 - Order Number
2. Choose an order number and click Select.



3. On Operation Quantities Inquiry, review the following fields and click Cancel:

- Completed Date
- Projected Comp.
- Yield

Processing Options for Operation Quantity Inquiry (P31124)

Defaults
Status Info
1. From Status
2. Thru Status

Reviewing Hours and Quantities Transactions

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

The Hours and Quantities Proof report lists all labor hours and completed quantities that are recorded against a work order. You can print the hours and quantities transactions that have been entered and review them before you post them to the general ledger system. Before they are posted, the transactions can be changed and updated. After you post them, they cannot be changed. The system retrieves the hours and quantities information from the Work Order Time Transactions table (F31122).

Completions

Completions

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

You use the Super Backflush and Completion programs to record completions to work orders, and the Completions Workbench program to record completions to rate schedules.

If you use other J.D. Edwards systems, the following integration features apply:

Inventory Management integration

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

Warehouse Management integration

If you process transactions for a branch/plant that uses warehouse control, the Location Detail form appears when you enter backflush transactions, and the system creates a second record with the location detail information. 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 form. The original quantity being processed through this transaction program, using the Location Detail form, appears in the top of the Super Backflush form.

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 form. 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 the Item Master.
- The units of measure display from largest to smallest.
- The structure must result in whole number conversions between units of measure.

The system allows unit of measure values in the following conditions:

- Each unit of measure can contain only one partial quantity for that unit of measure.
- You can only overfill pallet-type units of measure as defined in the Unit of Measure Group Revisions form.

The system always displays the Location Detail form when adding inventory to the branch/plant, except when inventory is removed and only one location detail record is in the location. In this case, the quantity is automatically removed from the single location detail.

Quality Management integration

With the Quality Management system, you can work with test results as you do the following:

- Create, process, manage, and complete work orders and rate schedules
- Record actual hours and quantities

- Backflush labor and parts

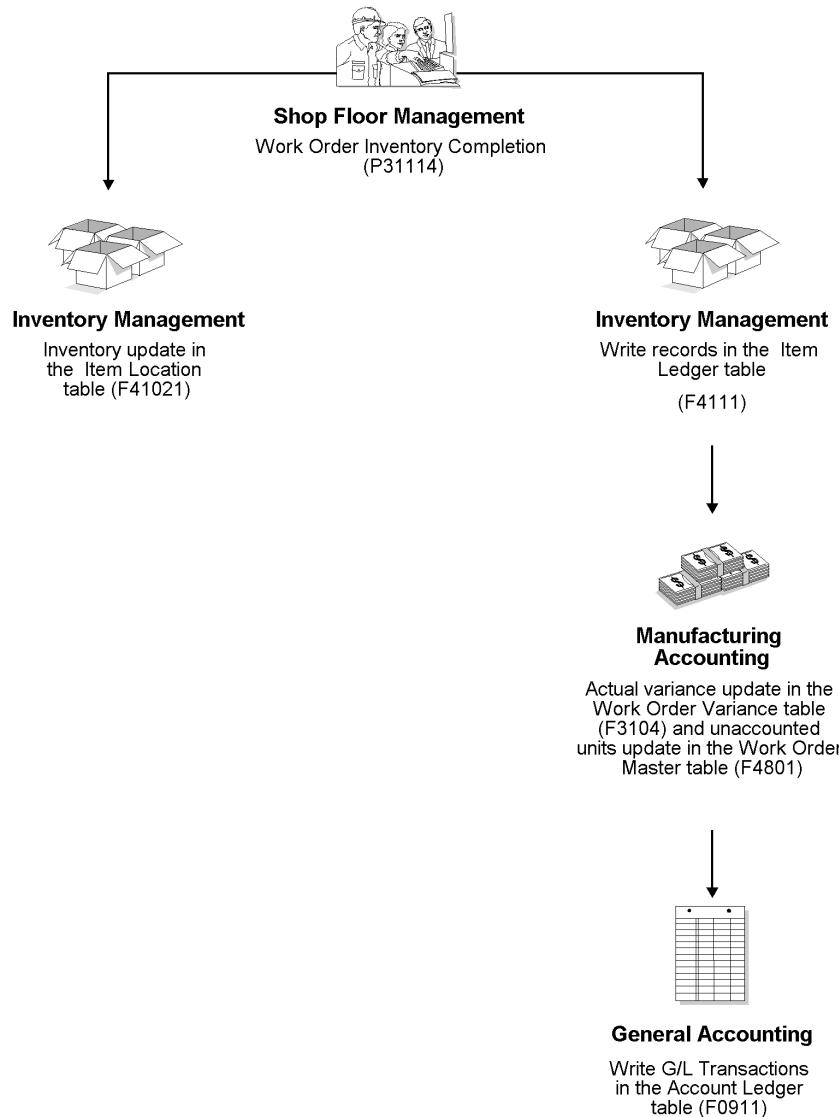
As you enter work order completions, including quantity completed and quantity scrapped, you can do the following:

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

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

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

The system updates several tables after work orders or rate schedules are completed. The following graphic identifies these tables.



The following graphic illustrates the process from work order or rate schedule header through completion. The hand identifies the point in the process where you perform the completion.

See Also

- About Lot Processing* for more information about lot control
- What Happens When You Record Completions?* in the *Product Costing and Manufacturing Accounting* documentation

Completing Discrete Work Orders

When you finish producing items on the shop floor, you need to record the completions to inventory. The completion transactions that you enter in the Shop Floor Management 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

The point at which you choose to report completions depends on factors related to your production cycle time. Depending on the nature of the manufactured item, you can report partial completions or report total completions in one transaction. When you report partial completions, you can also 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 that you designated will generate an over completion.

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.

Completing Work Orders Without Backflushing

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

► To complete work orders without backflushing

From the Daily Order Reporting - Discrete menu (G3112), choose Partial Completion.

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

	Order Number	Or Ty	Description	2nd Item Number	Quantity Ordered	UM	Q Co
	451021	WO	Cro-Moly Frame	2004	10	EA	
	451039	WO	Chain Stay	2005	20	EA	
	451080	WO	Bike Trailer	2600	5	EA	
	451088	WO	Vitamin A	4201	5000	GM	
	451101	WO	Bike Trailer	2600	5	EA	
	451119	WO	Cro-Moly Frame, Red	2001	167	EA	
	451127	WO	Multivitamin Tablets	4200	10000	PC	
	451135	WO	Multivitamin Tablets	4200	10000	PC	
	451143	WM	Replace Intake Filters	REPLACE INTAKE FILTERS	1	EA	
	451151	WM	Replace Dryer Filter	REPLACE DRYER FILTERS	1		
	451160	WM	Lubricate Air Compressor	LUBRICATE AIR COMPRESSOR	1		
	451178	WM	Clean and Inspect Spray Heads	CLEAN/ INSPECT SPRAY HEAD	1		
	451186	WM	Inspect Exhaust Fan Motors	INSPECT EXHAUST FAN MOTOR	1		

1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.
The second and third fields are optional.
4. Complete the following optional field:
 - WO Sts
5. To complete a work order at a location other than the primary location, complete the following fields and click OK:
 - Location
 - Lot/Serial

If using actual costing, you can complete a work order to only one location and lot.

Defaults Tab

Use these processing options to specify the default document types and status codes that the system uses when you complete inventory.

1. Inventory Completion Document Type

Use this processing option to specify the default document type that is associated with an inventory completion. Document type is a user defined code (00/DT) that identifies the origin and purpose of the document. Enter the document type to use as the default value or choose it from the Select User Defined Codes form.

2. Inventory Scrap Document Type

Use this processing option to specify the default document type that is associated with an inventory scrap transaction. The system creates the scrap transaction from the Work Order Completions program (P31114). Document type is a user defined code (00/DT) that identifies the origin and purpose of the document. Enter the document type to use as the default value or choose it from the Select User Define Codes form.

3. Work Order Status Code

Use this processing option to specify the default status code for the work order header. Status code is a user defined code (00/SS) that identifies the status of the work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

Lot Hold Codes Tab

Use these processing options to specify the lot hold codes to which the system processes a completion. You can enter up to five lot hold codes.

If you enter an asterisk in any of these fields, the system processes completions to all held lots. Additionally, if you leave these fields blank, the system does not process completions to any held lots.

1. Lot Hold Code # 1

Use this processing option to specify one of five lot hold codes to which the system processes completions. Enter a hold code, an asterisk, or leave this field blank. If you enter a hold code, the system processes completions to that hold code. If you enter an asterisk, the system processes completions to all held lots. If you leave this field blank, the system does not process completions to any held lots.

2. Lot Hold Code # 2

Use this processing option to specify one of five lot hold codes to which the system processes completions. Enter a hold code, an asterisk, or leave this field blank. If you enter a hold code, the system processes completions to that hold code. If you enter an asterisk, the system processes completions to all held lots. If you leave this field blank, the system does not process completions to any held lots.

3. Lot Hold Code # 3

Use this processing option to specify one of five lot hold codes to which the system processes completions. Enter a hold code, an asterisk, or leave this field blank. If you enter a hold code, the system processes completions to that hold code. If you enter an asterisk, the system processes completions to all held lots. If you leave this field blank, the system does not process completions to any held lots.

4. Lot Hold Code # 4

Use this processing option to specify one of five lot hold codes to which the system processes completions. Enter a hold code, an asterisk, or leave this field blank. If you enter a hold code, the system processes completions to

that hold code. If you enter an asterisk, the system processes completions to all held lots. If you leave this field blank, the system does not process completions to any held lots.

5. Lot Hold Code # 5

Use this processing option to specify one of five lot hold codes to which the system processes completions. Enter a hold code, an asterisk, or leave this field blank. If you enter a hold code, the system processes completions to that hold code. If you enter an asterisk, the system processes completions to all held lots. If you leave this field blank, the system does not process completions to any held lots.

Sales Orders Tab

Use these processing options to specify the information that the system needs to process completions associated with sales orders.

1. Work Order Lot and Location Defaults

- 1 = Use SO number as lot number.
- 2 = Use SO number as location, and SO line number as lot number.
- 3 = Use WO number as the lot number.

Use this processing option to specify which number that the system uses for the completion lot number and the completion location. Valid values are:

- 1 The system uses the sales order number as the completion lot number.
- 2 The system uses the sales order number as the completion location and the sales order line number as the completion lot number.
- 3 The system uses the work order number as the completion lot number.

2. Sales Order Lot and Location

Blank = Do not update sales order.

1 = Updates sales order with lot and location.

Use this processing option to specify whether the system updates the Lot Number and Location fields on the related sales order detail line with the work order's lot and location. Valid values are:

Blank The system does not update the sales order.

1 The system updates the sales order.

3. Override Next Status

Use this processing option to specify the default of the next status code for the sales order. This processing option is only used if the Update Sales Order processing option is set to update.

Next status code is a user defined code (40/AT) that identifies the activity or status of the document. Enter the status code to use as the default value or choose it from the Select User Define Codes form. If you leave this field blank, the system uses the sales order next status from the order activity rules.

4. Update Sales Order Next Status

Blank = Next status is not updated.

1 = Next status is updated.

Use this processing option to specify whether the system updates the next status code on a related sales order. Valid values are:

Blank The system does not update the next status for a sales order.

1 The system updates the next status for a sales order.

5. Display Back Order Release Form

Blank = Do not display form.

1 = Display form.

Use this processing option to specify whether the system displays the Back Order Release form for completed backordered items. If the system displays the form, you can view the items that are on backorder and then ship them immediately. You can also view what backorders exist and decide how to prioritize them. Valid values are:

Blank The system does not display the Back Order Release form.

1 The system displays the Back Order Release form.

If you choose this processing option, enter the version of the Back Order Release program (P42117) in the Back Order Release processing option, Sales order tab.

6. Back Order Release Version (P42117)

Use this processing option to specify the version that the system uses to complete inventory with backordered items. The system specifies the version when the processing option is set to display the Back Order Release program (P42117).

If you leave this field blank, the system uses the ZJDE0001 version of the Back Order Release program. This version controls how the Back Order Release program displays information.

Process Manufacturing Tab

Use these processing options to specify whether the system allows unplanned co-products and by-products and whether the system issues them separately or together.

1. Allow Unplanned Co-/By-Products

Blank = Do not allow unplanned co-/by-products.

1 = Allow unplanned co-/by-products.

Use this processing option to specify whether the system processes completions of unplanned co-products and by-products. Valid values are:

Blank The system does not process completions of unplanned co-products and by-products.

1 The system processes completions of unplanned co-products and by-products.

2. Issues Ingredients to Co-/By-Products

Blank = Issue ingredients to process item.

1 = Issue ingredients to co-/by-products.

Use this processing option to determine if the issued ingredients are linked with the process item or with each co-product or by-product that the system completes. Valid values are:

Blank The system issues ingredients to the process item.

1 The system issues ingredients to co-products and by-products.

Choose 1 when you issue ingredients to co-products and by-products. This enables you to track lots to the final end product.

Warehouse Management Tab

Use these processing options to specify how the system processes putaway requests for Warehouse Management integration.

1. Putaway Requests

Blank = Do not process putaway requests.

1 = Process putaway requests only.

2 = Process putaway requests using the subsystem.

Use this processing option to specify the directed putaway mode that the system processes. Valid values are:

Blank The system does not process putaway requests.

1 The system processes putaway requests only.

2 The system processes putaway requests when it accesses the subsystem.

If you specify mode 2, enter the version of the subsystem program that the system uses in the Subsystem Putaway Requests processing option, Warehouse Management tab, in the Work Order Inventory Completion program (P31114).

2. Location Selection Driver Version (R46171)

Use this processing option to specify the version of the Location Selection Driver program (P46171), if you choose mode 2 (directed putaway) for the Putaway Requests processing option, Warehouse Management tab. The system uses this version when processing putaway requests.

If you leave this field blank, the system uses the ZJDE0001 version of the Location Selection Driver program. This version controls how the Location Selection Driver program displays information.

3. Cross-Docking of Backorders

Blank=The program does not cross-dock backordered items.

1=The program cross-docks backordered items.

Use this processing option to specify whether the system cross-docks backordered items. Valid values are:

Blank The system does not cross-dock backordered items.

1 The system cross-docks backordered items.

If you choose 1, then set Display Back Order Release Form to blank (P31114),

Sales Order tab.

Completions Tab

Use these processing options to specify the processes that the system enables as you complete inventory using the Inventory Completion program (P31114).

1. Backflush

Blank = Do not call WO issues.

1 = Perform an interactive execution of WO issues.

2 = Perform a blind execution of WO issues.

Use this processing option to specify whether the system displays the Work Order Issues form (P31113) to issue material that is based on the quantity completed after the system runs a successful inventory completion. Valid values are:

Blank The system does not display Work Order Issues.

1 The system displays Work Order Issues.

2 The system performs a blind execution of Work Order Issues.

If you use this processing option, specify the version of the Work Order Issues program (P31113) in the Work Order Issues processing option, Completions tab.

2. Work Order Issues Version (P31113)

Use this processing option to specify the version of the Work Order Issues program that the system uses. The system only requires this processing option when Work Order Issues is set to execute.

If you leave this field blank, the system uses the ZJDE0001 version of the program. This version controls how the Work Order Issues program displays information.

3. Work Order Status Limit

Use this processing option to choose the work order status code at or beyond

which completions the system cannot process. If you leave this field blank, the system processes work orders at any status. For example, if inventory completions is set at 95 and the work order is at 95 or greater, then the system displays an error.

4. Receipt Routing

Blank = Do not initiate receipts routing.

1= Initiate receipt routing.

Use this processing option to specify whether the system initiate the process for receipt routing. Use this processing option for inspection purposes, which allows you to go through the process before you process inventory completions.

Valid values are:

Blank The system does not initiate the process for receipt routing.

1 The system initiates the process for receipt routing.

5. Override Lot Numbers

Blank = The user cannot override lot number.

1 = The user can override lot number.

Use this processing option to specify whether the system allows you to override the lot number. Valid values are:

Blank The system does not allow you to override the lot number.

1 The system allows you to override the lot number.

If this processing option is set to blank, the lot number field is unprotected and allows user input the first time you complete a work order. However, if the system completes a partial completion of that work order, the system protects the lot number field. The system uses the lot number for the first

completion of that work order and for all other partial completions.

If you have this processing option set to 1, you can override the lot number even if you have already done a partial completion of the work order. The system does not protect the lot number field.

6. Negative Quantity on Hand

Use this processing option to specify whether the system displays an error message when the completed material sets the on-hand quantity to a negative amount. Valid values are:

1 The system displays an error message for negative on-hand quantities.

Blank The system does not display an error message for negative on-hand quantities.

Versions Tab

Use these processing options to specify which versions of the following programs that the system uses in the completion process:

- Shortage Workbench
- Work Order Entry
- Test Results Revisions

1. Shortage Workbench (P3118)

Use this processing option to specify the version that the system uses when you choose the row exit to the Shortage Workbench program (P3118) from the Work Order Completion Detail form.

If you leave this field blank, the system uses the ZJDE0001 version of the Shortage Workbench program. This version controls how the Shortage Workbench program displays information.

2. Work Order Entry (P48013)

Use this processing option to specify the version that the system uses when you choose the row exit to the Work Order Entry program (P48013) from the Work Order Completion Detail form.

If you leave this option blank, the system uses the ZJDE0001 version of the Work Order Entry program. This version controls how the Work Order Entry program displays information.

3. Test Results Revisions (P3711)

Use this processing option to specify the version that the system uses when you choose the row exit to the Test Results Revisions program (P3711) from the Work Order Completion Detail form.

If you leave this option blank, the system uses the ZJDE0002 version of the Test Results Revisions program. This version controls how the Test Results Revisions program displays information.

Serial Number Processing Tab

Use these processing options to specify how the system processes inventory completions when you have serial numbers attached to the work orders.

1. Allow Duplicate Lot Serial Numbers

Blank = Do not allow duplicate LSNs.

1 = Allow duplicate LSNs.

Use this processing option to specify whether the system duplicates a lot serial number that exists in the system. Valid values are:

Blank The system does not duplicate lot serial numbers.

1 The system duplicates lot serial numbers.

2. Document Type

Use this processing option to specify the default document type that the system uses for serial number issues. Document type is a user defined code (00/DT) that identifies the origin and purpose of the document. Enter the document type to use as the default value or choose it from the Select User Defined Codes form. If you leave this field blank, the system uses the IM value. The IM value system charges material to the a work order.

Interoperability Tab

Use these processing options to specify the default transaction type the system uses to process export transactions and to identify the outbound subsystem.

1. Transaction Type

Use this processing option to specify the transaction type that the system uses for outbound interoperability processing. Transaction type is a user defined code (00/TT) that the system assigns to a transaction when it completes a work order. Enter the transaction type to use as the default value or choose it from the Select User Define Code form. If you leave this field blank, the system does not perform outbound interoperability processing.

2. Call Outbound Subsystem

Blank = Do not call the subsystem.

1 = Call outbound subsystem.

Use this processing option to specify whether the system activates the subsystem after the Work Order Completions program (P31114) has successfully processed an outbound transaction. Valid values are:

Blank The system does not activate the subsystem.

1 The system activates the subsystem.

Working with 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.

Before You Begin

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

Completing Work Orders through Backflush

You record full or partial completions while backflushing material on the Work Order Completion Detail form.

► To complete work orders through backflush

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

1. On Work With Work Order Completions, complete the following field and click Find:

- Skip to Order Number

2. Choose an order and click Select.

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.

The second and third fields are optional.

4. Complete the following optional field:

- WO Sts

5. To complete a work order at a location other than the primary location, complete the following fields and click OK:

- Location
- Lot/Serial

If using actual costing, you can complete a work order to only one location and lot.

The screenshot shows the PeopleSoft Inventory Issue Revisions screen. At the top, there's a toolbar with buttons for OK, Find, Cancel, Form, Row, Tools, and a search icon. Below the toolbar, the title bar says "Active Foundation". The main area has tabs for "Basic Information", "Additional Details", and "Filters". Under "Basic Information", there are fields for Order Number/Type (451004), Branch/Plant (M30), Transaction Date (08/27/03), City Ordered/UOM (2000 EA), and Issue Material For/UOM (1 EA). A large grid below shows "Records 1 - 10" with columns for Issue #, Item Number, Description, Oper Seq#, Issues, Secondary Issues, Request Date, Mt St, and Quantity Ordered. One row is selected, showing Cro-Moly Frame, Red with a quantity of 10.00 and a request date of 06/24/05 20.

Issue #	Item Number	Description	Oper Seq#	Issues	Secondary Issues	Request Date	Mt St	Quantity Ordered
1	2001	Cro-Moly Frame, Red	10.00			06/24/05 20		
1	2021	Handle Bar	10.00			06/24/05 20		
1	2006	Touring Fork	20.00			06/24/05 20		
1	2007	Bottom Bracket	30.00			06/24/05 20		
1	2013	Shift Kit	30.00			06/24/05 20		
1	2008	Head Set	40.00			06/24/05 20		
1	2014	Brake Kit	40.00			06/24/05 20		
1	2009	Crank	50.00			06/24/05 20		
1	2010	Chain Rings	60.00			06/24/05 20		
1	2011	Chain, Std	60.00			06/24/05 20		

6. On Inventory Issue Revisions, choose the items to issue and then click OK.

See Also

- Completing Work Orders Without Backflushing* to review the processing options for work order inventory completions

Releasing Sales Backorders During Completions

The Sales Order Management system uniquely identifies items that are being manufactured as backordered items. When you complete the items in the Shop Floor Management system using the Full Completion program, you can release the sales backorders.

Before You Begin

- Before you release sales 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.

► To release sales backorders during completions

From the Daily Order Reporting - Discrete menu (G3112), choose Full Completion.

1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.
3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.
The second and third fields are optional.
4. Complete the following optional field:
 - WO Sts
5. On Work With Backorders, review the following default information:
 - Order Number
 - Or Ty
 - Item Number
 - Quantity on Backorder
 - Ship To

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 Release Backorders.

See Also

- Completing Work Orders Without Backflushing* to review the processing options for work order inventory completions

Managing Completions that Use Receipts Routing

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

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

To specify whether the system directs items through a receipt routing, you must assign a routing to each item. You assign receipt routings to items based on item or supplier relationships or both.

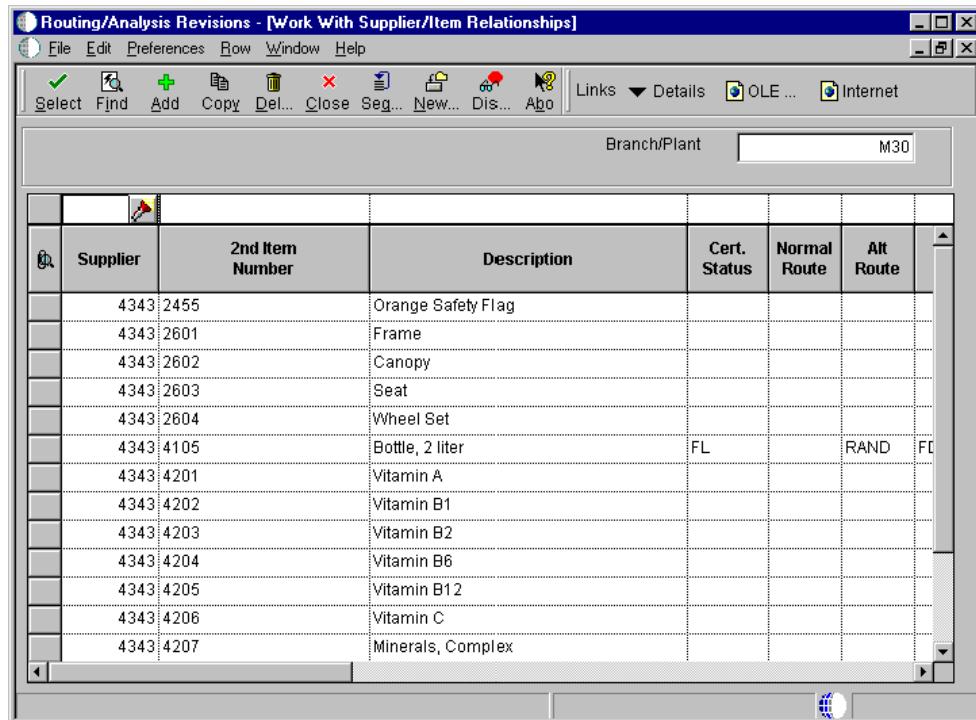
For manufactured items, the supplier must be -99999999. However, the system generates the supplier when you set the processing options for Work Order Completions in the Supplier/Item Relationships program (P43090). The processing options automatically sets the manufactured items to supplier -99999999 and prevents the system from displaying a supplier field in the program.

Before You Begin

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

► To manage completions using receipts routing

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



1. On Work With Supplier/Item Relationships, complete the following field and click Find:
 - Branch/Plant
2. Choose a record and click Select.

The screenshot shows the PeopleSoft Work With Supplier/Item Relationships form. The form has several sections:

- Supplier/Item Relationships:** Contains fields for Branch/Plant (M30), Supplier (99999999), Item Number (4200), Certification Status (Multivitamin Tablets), Effective Date (08/02/00), and Expiration Date (12/31/10).
- Routing Information:** Contains fields for Normal Route Code (MINS) and Manufacturing Inspection selected.
- Analysis Information:** Contains fields for Average Unit Cost, Leadtime Quantity % (90.00), Frequency Days, Frequency Number, Average Leadtime (0.00), Days Allowed Early, and Days Allowed Late.

3. On Supplier/Item Relationships, complete the following fields and click OK:
 - Effective Date
 - Expiration Date
 - Normal Route Code

If you need to issue material from locations that are not listed on the parts list, after you complete the work order by accepting the records shown on Work Order Completion Detail, you access the Select Multiple Locations form, move the commitments, and then issue the material.

To locate the status of the receipts routing, use the Work With Routing Statuses form. To view the details of a step, access the Receipt Routing Movement form.

See Also

- ❑ *Reviewing Manufacturing AAs in the Product Costing and Manufacturing Accounting documentation for more information about automatic accounting instructions for manufacturing*

- Entering Receipts* in the *Procurement* documentation for detailed information about entering receipts
- Completing Work Orders Without Backflushing* to review the processing options for Work Order Inventory Completions

Processing Options for Routing/Analysis Revisions

Process

Cross Ref. Type for Supplier Item (Default VN)

Enter a '1' to automatically display the applications listed below when adding a new item.

Standard Item Master

Non-Stock Item Master

Supplier Prices

Enter a '1' for Work Order Completion Mode

Versions

Enter the version for each program that is called. If left blank, ZJDE0001 will be used.

Item Master Maintenance (P4101)

Completing Partial Quantities on Work Orders

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

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

The Work With Work Order Completions form displays completed and scrapped quantities and percent complete information for a work order.

► To complete partial quantities on work orders

From the Daily Order Reporting - Discrete menu (G3112), choose Partial Completion.

1. On Work With Work Order Completions, complete the following field and click Find:

- Skip to Order Number

2. Choose an order number and click Select.

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.

The second and third fields are optional.

4. If you did not set the status in the processing options, complete the following field:

- WO Sts

5. If you are not completing at the primary location, complete the following fields and click OK:

- Location
- Lot/Serial

See Also

- Completing Work Orders Without Backflushing* to review the processing options for work order inventory completions

Processing Work Orders through Super Backflush

The Super Backflush program creates backflush transactions against a work order at pay points defined in the routing instructions. Super backflushing allows you to relieve inventory at strategic points throughout the manufacturing process.

For example, assume that not all parts are required at the first operation in your production process. As component material is brought into the production process, it is relieved from inventory at points within this process. In this example, the cycle time might be three days.

Rather than relieving all parts for the work order at the start date, 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 instruction 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
- Record hours and quantities against the work order at standard values
- Record inventory completions

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

Note

If using actual costing, you must consume all raw materials up to the last pay point and update the hours online before you proceed to the next completions form. See *Understanding Work Orders in Manufacturing Accounting* in the *Product Costing and Manufacturing Accounting* documentation.

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

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

- Work Order Completions

The information in the detail area of this form is from the Work Order Routing Instructions table (F3112). The information in the header area is stored in the Work Order Routing table (F4801).

► To process work orders through super backflush

From the Daily Order Reporting - Discrete menu (G3112), choose Super Backflush.

Order Number	Or Ty	Description	Branch	2nd Item Number	Quantity Ordered
451004	WO	Touring Bike, Red	M30	220	2
451012	WO	Cro-Moly Frame, Red	M30	2001	
451021	WO	Cro-Moly Frame	M30	2004	
451039	WO	Chain Stay	M30	2005	
451080	WO	Bike Trailer	M30	2600	
451098	WO	Vitamin A	M30	4201	5
451101	WO	Bike Trailer	M30	2600	
451119	WO	Cro-Moly Frame, Red	M30	2001	
451127	WO	Multivitamin Tablets	M30	4200	10
451135	WO	Multivitamin Tablets	M30	4200	10
451194	WO	Touring Bike, Red	M30	220	

1. On Work With Order Numbers, complete the following field and click Find:

- Skip to Order Number

2. Choose the order number that you want to process and click Select.

The system displays Super Backflush. Operation numbers defined as pay points appear in reverse image.

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	Work Center	Workcenter Branch	Oper Seq#	Employee Number	Equipment Number	Quantity Completed	Quantity Scrapped	U/M	Op St	Pay Point Status	Pay Point Code
<input type="radio"/>	200-901	M30	10.00					EA			0
<input checked="" type="radio"/>	200-901	M30	20.00	<input type="button" value="Search"/>				EA			B
<input type="radio"/>	200-901	M30	30.00					EA			0
<input type="radio"/>	200-901	M30	40.00					EA			B
<input type="radio"/>	200-911	M30	50.00					EA			0
<input type="radio"/>	200-920	M30	60.00					EA			B

3. On Super Backflush, complete the following fields:
 - Transaction Date
 - Employee Number
 - Quantity Completed
 - Op St
4. Complete the following optional field and click OK:
 - Pay Point Status
5. On the last pay point, Work Order Completion Detail appears. Review the three fields associated with the Completed Items to Stock field and the following fields and click OK:
 - WO Sts
 - Location
 - Lot/Serial
6. On Inventory Issue Revisions, choose all item numbers, and then click OK.
The system processes the information according to the issue type code and pay point type that is 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, then, 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.

7. On Time Entry Revisions, review, and complete as necessary, any of the following fields and click OK:
 - Employee Number
 - Oper #
 - Ty Hrs
 - Begin Time
 - End Time
 - Hours
 - Quantity
 - UM
 - St

See Also

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

Processing Options for Super Backflush (P31123)

Defaults Tab

These processing options allow you to identify operation statuses for partial and full completions.

1. Operation Status for Partial Completions.

Use this processing option to indicate the status of an operation of a work order or an engineering change order as the operation steps in the routing are partially completed. Enter the Operation Status code (31/OS) or select it from the User Defined Codes form.

2. Operation Status Code for Full Completions.

Use this processing option to indicate the status of an operation of a work order or an engineering change order as the steps in the routing are fully completed. Enter the Operation Status code (31/OS) or select it from the User Defined Codes form.

3. Status Code for Update to Work Order Header

Use this processing option to specify the default status code for the work order header. Status code is a user defined code (00/SS) that identifies the status of a work order. Enter the status code to use as the default value or choose it from the Select User Define Codes form.

Versions Tab

These processing options allow you to specify which program version the system uses when it accesses other programs from Super Backflush. If you leave the fields blank in any of these options, then the system uses the ZJDE0001 version.

1. Hours and Quantities (P311221)

Use this processing option to specify the version of the Hours and Quantities program (P311221) that the system uses to track labor, machine, and setup hours during the manufacturing of a work order. If you leave this option blank, the system uses the ZJDE0001 version.

2. Work Order Issues (P31113)

Use this processing option to specify the version of the Work Order Issues program (P31113) that the system uses to move components that were in inventory to a work order. If you leave this option blank, the system uses the ZJDE0001 version.

3. Work Order Completions (P31114)

Use this processing option to specify the version of the Work Order Completions program (P31114) that the system uses to indicate how many items the system has manufactured or scrapped from a work order. When the system performs a completion, the system moves the item to inventory. If you leave this option blank, the system uses the ZJDE0001.

4. Test Results Revisions (P3711)

Use this processing option to specify the version of the Test Results Revision program (P3711) that the system uses when you choose Test Results and take a row exit from the main Super Backflush form. If you leave this field blank, the system uses the ZJDE0001 version.

Process Tab

These processing options allow you to specify the status limit at or beyond which the system cannot run Super Backflush. In addition, they allow you to specify whether the system

displays the Work Order Completions form, Work Order Issues form, or the Hours and Quantities form.

1. Work Order Status Limit

Use this processing option to choose the work order status code (00/SS) at or beyond which the system cannot run the Super Backflush program. For example, if this processing option is set at 95 and a work order has reached status 95, then the system generates an error message if you attempt to run Super Backflush on that work order. Enter the Work Order Status code or select it from the Select User Defined Codes form.

2. Display Work Order Completions form

Blank = Display

1 = Do not display

Use this processing option to specify if the system displays the Work Order Completions form (P31114) when the system fully or partially completes the final operation listed on the Super Backflush form. Valid values are:

Blank The system displays the Work Order Completions form.

1 The system does not display the Work Order Completions form.

If the system does not display this form, then it completes the work order for the quantity that is specified on the Super Backflush form. If you complete quantities to different locations, lot numbers, or serial numbers, then display the Work Order Completions Detail form.

3. Display Work Order Issues form

Blank = Display

1 = Do not display

Use this processing option to specify whether the the system displays the Work

Order Issues form (P31113) when you record activity at a pay point operation.

Valid values are:

- Blank The system displays the Work Order Issues form.
- 1 The system does not display the Work Order Issues form.

4. Display Hours and Quantities form

Blank = Display

1 = Do not display

Use this processing option to specify whether the system displays the Hours and Quantities form (P311221) when the system records activity against a pay point operation. Valid values are:

- Blank The system displays the Hours and Quantities form.
- 1 The system does not display the Hours and Quantities form.

5. Apply Yield to Completed Quantity

Blank = Do not apply

1 = Apply

Use this option to specify whether the system applies the operation yield percentage to the quantity that the user completes at an operation. The yield percentage determines the scrap quantity. Valid values are:

- Blank The system does not apply the operation yield percent to the quantity completed.
- 1 The system applies the operation yield percent to the quantity completed.

Edits Tab

This processing option allows you to specify whether you want to validate the quantity completed and scrapped.

1. Validate Quantity at Operation

Blank = Do not validate

1 = Validate

Use this processing option to validate that the quantity completed plus the quantity scrapped does not exceed the quantity at operation. Valid values are:

Blank The system does not validate quantities at operation.

1 The system validates quantities at operation.

Processing Work Orders that Use Quantity at Operation

You report quantities against work order operations using either Hours and Quantities or Super Backflush. For example, if you have a quantity of 20 completed for operation sequence numbers 10 and 20, and a quantity of 40 completed for operation sequence number 30, you report these quantities using either the Hours and Quantities program or the Super Backflush program. 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 instructions; 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. 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, the system verifies the quantity at operation before the update process 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 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 specific operation, that the total quantity completed plus the quantity scrapped does not exceed the quantity at operation.

Super Backflush allows entry only for pay points. To handle nonpay 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 nonpay points since the last pay point.

Before You Begin

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

► To process work orders that use quantity at operation

From the Daily Order Reporting - Discrete menu (G3112), choose Hours and Quantities.

The screenshot shows a Windows application window titled "Hours and Quantities - [Work With Work Order Time Entry]". The menu bar includes File, Edit, Preferences, Form, Row, Window, and Help. The toolbar contains icons for Select, Find, Add, Close, Seg..., New..., Dis..., Abo, Links, Update, OLE..., and Internet. The main area has fields for Work Date (containing an asterisk), Order Number (451004), Item Number (220), Batch Number (203), and descriptions like "Touring Bike, Red". Below is a grid table:

Order Number	Employee Number	Equipment Number	Oper #	Ty Hrs	Shift Code	Begin Time	End Time	Hours	Qua
451004	1			50.00	1			.25	
451004	1			50.00	4	1			
451004	1			60.00	1	1			.50
451004	1			60.00	4	1			

1. On Work With Work Order Time Entry, complete the following fields and click Find:
 - Work Date
 - Order Number
2. Choose the appropriate row and click Select.

3. On Time Entry Revisions, verify that the following fields contain accurate information:
 - Employee Number
 - Equipment Number
 - Oper #
 - Ty Hrs
 4. Complete the following fields:
 - Hours
 - Quantity
 5. Review the following fields and click OK:
 - Misc. Dollars
 - Employee Rate
 - Reason Code

See Also

- ❑ *Entering Hours and Quantities* to review the processing options for Hours and Quantities

Completing Work Orders with Serialized Components

When you record a completion for serialized components, the system accesses the Associate Issued Item Lot Serial Numbers (LSN) program. Another form, Serial Number Associations, is only accessible if you are associating serial number-controlled components to serial number assemblies. The system displays the preassigned serial numbers and any memo lot information on the Serial Number Associations form.

After you generate serial numbers for a work order, you associate the serialized components with a serialized assembly. To associate a serialized component with a serialized assembly, you enter the associating quantity.

In addition, the completion program allows you to enter a memo lot number to use 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 to do so.

If you complete work orders with components that are not serialized, you cannot assign serial numbers to the assemblies at completion.

If you set the appropriate processing options in the completion program, the system allows you to complete multiple items using the same serial number. If using actual costing, you can only complete to one lot, location, and serial number.

► To complete work orders with serialized components

From the Daily Order Reporting - Discrete menu (G3112), choose Partial Completion.

1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.
3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.

The second and third fields are optional.

Note

For serialized items you can complete only one item at a time.

4. If you know the serial number, complete the following field:
 - Lot/Serial
5. If you don't know the serial number, choose Serial Numbers from the Form menu.
6. On Work With Order Serial Number, choose a number, click Select, and then go to step 10.
If a list of serial numbers does not appear, you must generate them by choosing Revisions from the Form menu.
7. On Serial Number Revisions, choose Lot/SN Generation from the Form menu.
The system generates enough serial numbers for all the items on the work order.

8. Click OK to return the list to Work With Order Serial Numbers.
9. On Work With Order Serial Numbers, choose the serial number that you want and click Select.
10. On Work Order Completion Detail, complete the second and third optional fields associated with the Completed Items to Stock field.
11. Complete the following optional field:
 - WO Sts
12. To complete a work order at a known location other than the primary location, complete the following field and click OK:
 - Location
13. To choose a component to which you want to issue to a work order, choose Lot/SN Association from the Form menu.
14. On Serial Number Associations, choose Issued Items from the Form menu.
15. On Work With Serialized Issued Items, choose the components that you want to associate to the serialized assembly and click Select.
16. On Serial Number Associations, click OK.
17. On Work With Work Order Completion Detail, click OK.

Completing Process Work Orders

When you finish producing a processed item on the shop floor, you need to record the completions to inventory. The completion transactions that you enter in the Shop Floor Management system update the ingredient quantity records in the Inventory Management system.

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

- Report all co-products and by-products as complete after the entire work order is complete
- Report partial completions as they occur throughout the production process

The point at which you choose to report completions depends on the process, the co-products and by-products it produces, and your production cycle time. Depending on the nature of the manufactured item, you can report partial completions or report total completions in one transaction. When you report partial completions, you can also 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 Work Order Completions program to complete more than the quantity ordered, the system highlights the Completed Quantity field and warns you that completing the quantity that 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.

See Also

- ❑ *Completing Discrete Work Orders* to review the processing options for Work Order Inventory Completions

Completing Work Orders Without Backflushing

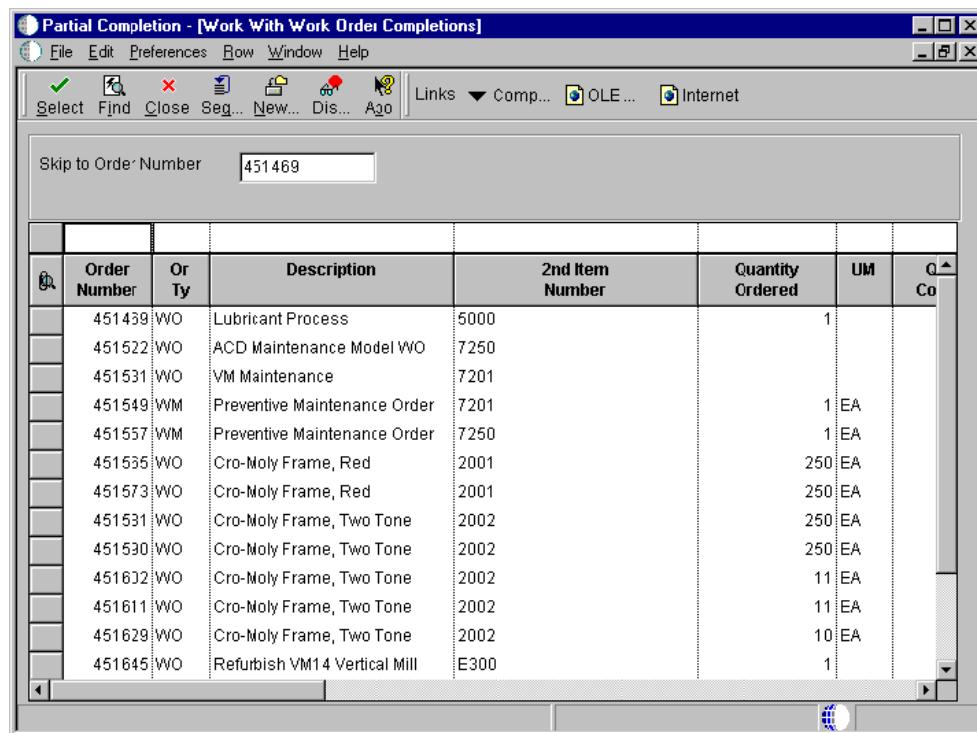
You can use the Work Order Completion program to record completed quantities for a work order, without backflushing the ingredients, in one of two ways:

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

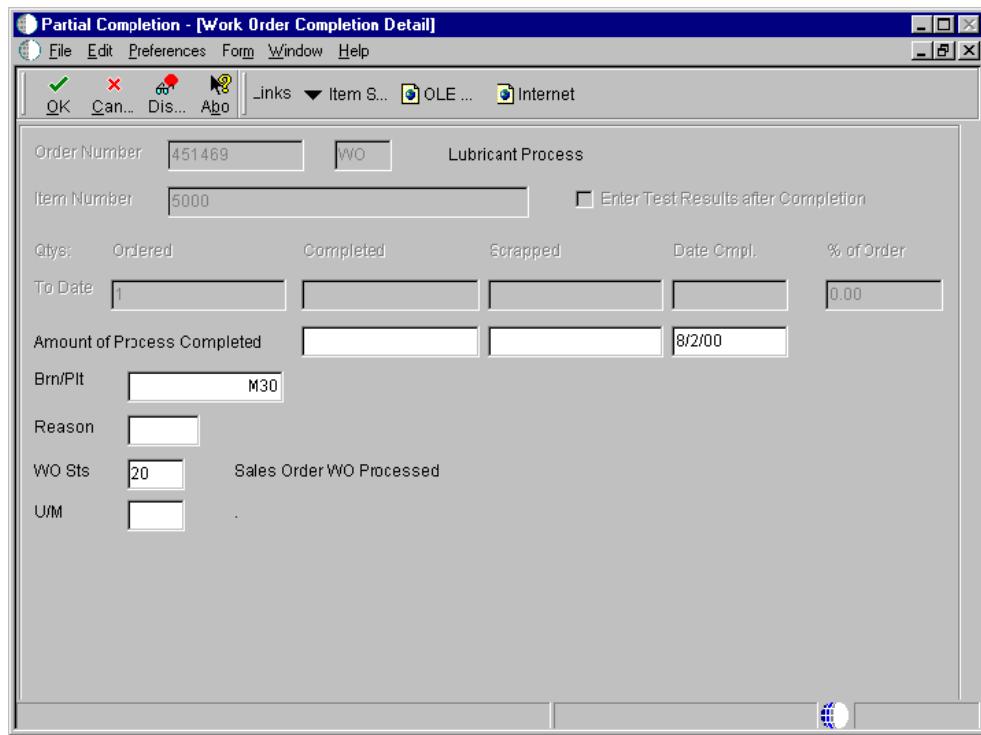
The Work With Work Order Completions form displays completed and scrapped quantities and percent complete information for a work order.

► To complete work orders without backflushing

From the Daily Order Reporting - Process menu (G3114), choose Partial Completion.



1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record and click Select.



3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.
4. Complete the following field:
 - WO Sts
5. To complete a work order to a location other than the primary location, complete the following fields and click OK:
 - Location
 - Lot/Serial

Working with Backflush

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

You use backflushing to report the issue transactions for ingredients that you use in a process after the co-products and by-products of the process are produced. Therefore, backflush issue transactions occur when you report partial or full completions of co-products and by-products on a work order.

Before You Begin

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

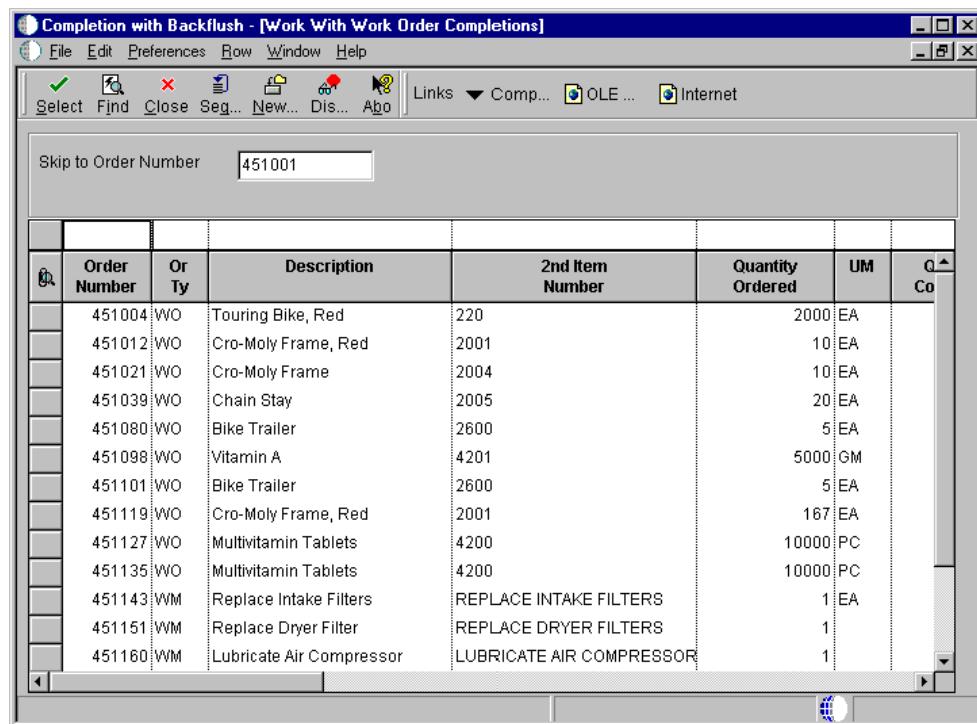
- Set the appropriate processing options to issue ingredients for each co-product and by-product separately, and to allow completion of unplanned co-products and by-products.

Completing Work Orders Through Backflush

You record completions while backflushing material on either the Full or Partial Completion program.

► To complete work orders through backflush

From the Daily Order Reporting - Process menu (G3114), choose Completion with Backflush.



1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record and click Select.

Work Order Completion Detail

Order Number/Type/Desc	451012	WO	Cro-Moly Frame, Red	Branch/Plant	M30																																						
Item Number	2001		Cro-Moly Frame, Red																																								
Current Status	30	Paperwork Prepared	Reason Code																																								
Update Status	45	Material Issued	Enter Test Results after Completion																																								
<table border="1"> <tr> <td>Date Completed</td> <td>08/27/03</td> <td>% Of Order Completed</td> <td>0.00</td> </tr> <tr> <td>Date Last Completed</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Qty Completed</td> <td></td> <td>Transaction Qtyps</td> <td>UOM</td> <td>Secondary Qtyps</td> <td>UOM</td> </tr> <tr> <td>Qty Scrapped</td> <td></td> <td></td> <td>EA</td> <td></td> <td></td> </tr> <tr> <td>Qty Ordered</td> <td>10</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Qty Completed To Date</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Qty Scrapped To Date</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Date Completed	08/27/03	% Of Order Completed	0.00	Date Last Completed				Qty Completed		Transaction Qtyps	UOM	Secondary Qtyps	UOM	Qty Scrapped			EA			Qty Ordered	10					Qty Completed To Date						Qty Scrapped To Date					
Date Completed	08/27/03	% Of Order Completed	0.00																																								
Date Last Completed																																											
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Qty Scrapped			EA																																								
Qty Ordered	10																																										
Qty Completed To Date																																											
Qty Scrapped To Date																																											

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.
4. Complete the following field:
 - WO Sts
5. If you are completing at a location other than the primary location, complete the following fields and then click OK:
 - Location
 - Lot/Serial
6. On Co/By Completion Revision, make any necessary changes in the first and second fields associated with the Completed Items to Stock field and click OK.
After you click OK, the system updates the on-hand inventory for the co-products and by-products. The Inventory Issues form appears for each co-product and by-product, allowing you to issue the ingredients separately for each co-product and by-product.
7. On Inventory Issue Revisions, review the issue quantities.
8. To issue the material, click OK.

Releasing Sales Backorders During Completions

The Sales Order Management system uniquely identifies items that are being manufactured as backordered items, as opposed to items that are not backordered. When you complete the

items in the Shop Floor Management system using the Completion with Backflush program, you can release the sales backorders.

Before You Begin

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

► To release sales backorders during completions

From the Daily Order Reporting - Process menu (G3114), choose Completion with Backflush.

1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.
3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.
The second and third fields are optional.
4. Complete the following optional field:
 - WO Sts
5. On Work With Backorders, review the following default information:
 - Quantity on Backorder
 - Order Number
 - Or Ty
 - Item Number
 - Ship To

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 Work with Backorders.

Managing Completions that Use Receipts Routing

You set up a receipt routing in the Procurement system by specifying a unique code name for routing receipts in the UDC 43/RC and an operation name in UDC 43/OC. You enter a Y in any of the update fields on the Receipt Routing Definition form to cause the system to update the appropriate field in the Item Location table when an item arrives at the specified operation.

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

To specify whether the system directs items through a receipt routing, you must assign a routing instruction to each item. You assign receipt routings to items based on item or supplier relationships or both, using the Supplier/Item Relationships program.

For manufactured items, the supplier must be -99999999.

An unplanned completion might be necessary due to a condition, such as temperature or humidity, that causes the process to produce another item when it normally would not. Set the appropriate processing option in the Work Order Completions program to allow the system to complete these types of co-products and by-products.

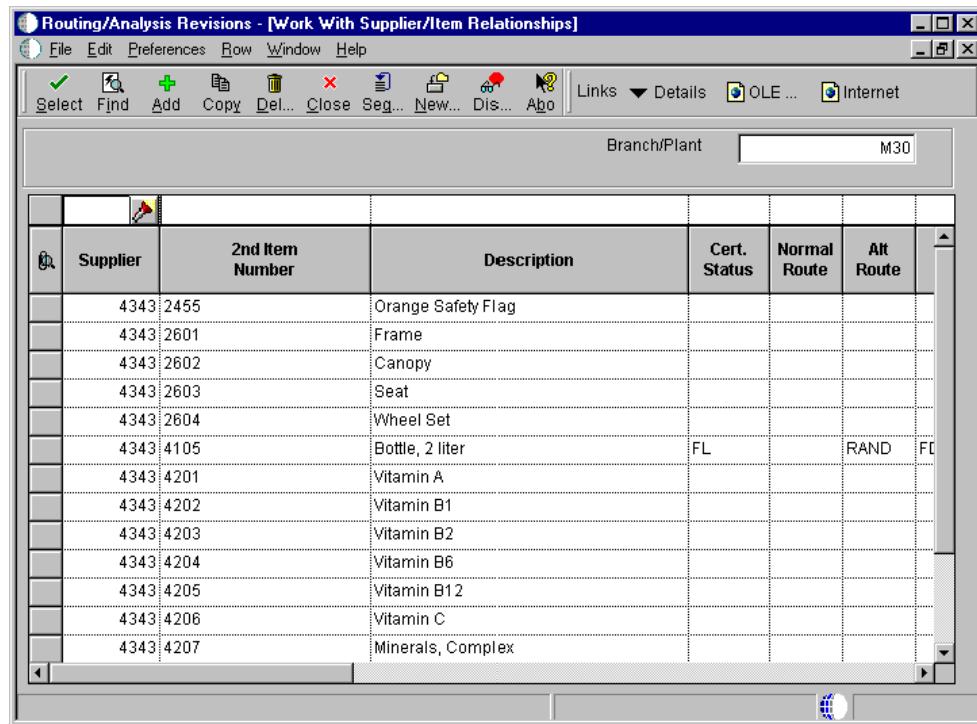
To enter an unplanned completion, you enter the part number, branch, and sequence number on the Co-/By Completion Revision form.

Before You Begin

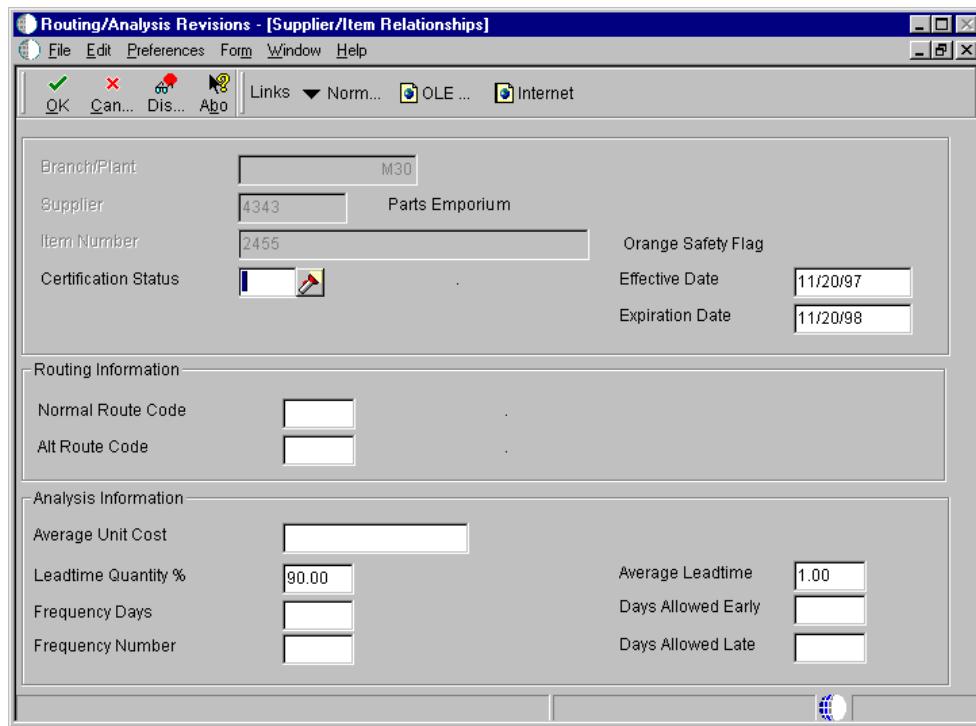
- Set the processing option to initiate the routing process.

► To manage completions using receipts routing

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



1. On Work With Supplier/Item Relationships, complete the following field and click Find:
 - Branch/Plant
2. Choose a record and click Select.



3. On Supplier/Item Relationships, complete the following fields and click OK:

- Effective Date
- Expiration Date
- Normal Route Code

If you need to issue material from locations that are not listed on the parts list, after you complete the work order by accepting the records shown on Completion with Backflush, access the Multiple Locations form. Then move the commitments and issue the ingredients.

For co-products and by-products, you can change a location by accessing Multiple Locations from Co-/By Completion Revision.

See Also

- Managing Completions Using Receipts Routings* to review the processing options for Routing/Analysis Revisions

Setting the Resource Percent for the Co-Products and By-Products

Use the Co/By Product Revision form to indicate what percent of the ingredients should be issued separately to co-products and by-products.

► To set the resource percent for the co-products and by-products

From the Daily PDM Process menu (G3012), choose Enter/Change Process.

1. On Work with Routing Operations, complete the following fields and click Find:

- Item Number
 - Branch/Plant
2. Choose an operation and click Select.
 3. On Enter Process Information, choose Co/By Revision from the Form menu.

The screenshot shows the PeopleSoft interface with the title 'PeopleSoft' at the top. Below it is a toolbar with icons for Portal, Web, Intranet, Training, Home, Help, and Log Out. A dropdown menu 'Select Workspace' is set to 'Active Foundation'. The main window title is 'Co/By Product Revision'. The window contains a toolbar with OK, Delete, Cancel, Tools, and a search icon. Below the toolbar is a section titled 'All Operations'. The main area is a grid table with the following columns: Co/By, Co/By Product, Description, Output Quantity, UM, Stocking Type, Co/By Branch, Feat Cost%, % Resource, and Oper Seq#. There are four rows of data:

Co/By	Co/By Product	Description	Output Quantity	UM	Stocking Type	Co/By Branch	Feat Cost%	% Resource	Oper Seq#
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	5010	Sludge	2	GA	M	M30	0.01	0.01	10.00
<input type="checkbox"/> <input checked="" type="checkbox"/>	C 5110	Household Lubricant Bulk	20	GA	M	M30	40.00	40.00	30.00
<input type="checkbox"/> <input checked="" type="checkbox"/>	C 5210	Graphite Lubricant Bulk	30	GA	M	M30	100.00	100.00	40.00
							100.00	100.00	

4. On Co/By Product Revision, complete the following optional field and click OK:
 - Resource %

Completing Partial Quantities on Work Orders

You can use the Partial Completion program to record complete parts of the quantity ordered for a work order as well as partial quantities. The Work With Work Order Completions form displays completed and scrapped quantities and percent complete information for a work order.

Note

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

► To complete partial quantities on work orders

From the Daily Order Reporting - Process menu (G3114), choose Partial Completion.

1. On Work With Work Order Completions, complete the following field and click Find:

- Skip to Order Number

2. Choose an order number and click Select.

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.

The second and third fields are optional.

4. If you did not set the status in the processing options, complete the following field:

- WO Sts

5. If you are not completing to the primary location, complete the following fields and click OK:

- Location
- Lot/Serial

► To complete a work order for multiple locations

From the Daily Order Reporting - Process menu (G3114), choose Partial Completion.

1. On Work With Work Order Completions, complete the following field and click Find:

- Skip to Order Number

2. Choose an order number and click Select.

3. On Work Order Completion Detail, complete the three fields associated with the Completed Items to Stock field.

The second and third fields are optional.

4. If you did not set the status in the processing options, complete the following field and click OK:

- WO Sts

Completion with Backflush - [Co/By Completion Revision]

Co/By Product	Description	Quantity Completed	Quantity Canceled	UOM	Date Completed
5010	Sludge	2		GA	7/31/
5110	Household Lubricant Bulk	20		GA	7/31/
5210	Graphite Lubricant Bulk	30		GA	7/31/

5. From the Form menu, choose Co/By Completion.
6. On Co/By Completion Revision, complete the following fields:
 - Quantity Completed
 - Location

Processing Work Orders through Super Backflush

The Super Backflush program creates backflush transactions against a work order at pay points defined in the routing instructions. Super backflushing allows you to relieve inventory at strategic points throughout the manufacturing process.

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

- Issue ingredients to the work order
- Record hours and quantities against the work order at standard values
- Record inventory completions

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

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

- Indicate the versions of associated programs to access

- Choose document types to be used when creating transactions
- Choose update status codes for operations and the work order header
- Indicate a status code beyond which entries to work orders cannot be made
- Store hours and quantities in related tables for later processing by manufacturing accounting
- Either access a specified version of the following programs or automatically run the process without calling them:
 - Hours and Quantities
 - Ingredient Issues
 - Work Order Completions

The information in the detail area of the Work With Order Numbers is stored in Work Order Routing table (F3112). The information in the header area is stored in the Work Order Master File table (F4801).

Operation numbers defined as pay points appear in reverse image on the form.

If the system has an intermediate for the operation, all form quantities are displayed in the unit of measure defined for the intermediate. When the system completes the quantity, it deducts the quantity from the operation and adds to the next operation.

► To process work orders through super backflush

From the Daily Order Reporting - Process menu (G3114), choose Super Backflush.

1. On Work With Order Numbers, complete the following field and click Find:
 - Skip to Order Number
2. Choose a record and click Select.
3. On Super Backflush, complete the following fields:
 - Transaction Date
 - Employee Number
 - Quantity Completed
 - Op St
4. Complete the following optional field and click OK:
 - Pay Point Status
5. On Co/By-Product Completions, click OK.
6. On the last pay point, Work Order Completion Detail appears. Review the three fields associated with the Completed Items to Stock field.
7. Review the following fields and click OK:
 - WO Sts

- Location
 - Lot/Serial
8. On Inventory Issues Revisions, choose all item numbers, and click OK.
- The system processes the information according to the issue type code and pay point type that is assigned to each operation.
- If an operation is defined as a pay point, and the pay point is set up to issue ingredients and report labor, then, 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.
9. On Time Entry Revisions, revise any of the following fields as necessary and click OK:
- Employee Number
 - Oper #
 - Equipment Number
 - Ty Hrs
 - Begin Time
 - End Time
 - Hours
 - Quantity
 - UM
 - St

See Also

- Reviewing the Status of Hours* for information about the status of hours for work orders
- Reviewing the Status of Quantities* for information about the status of quantities for work orders
- Processing Work Orders Through Super Backflush* to review the processing options for Super Backflush

Processing Work Orders that Use Quantity at Operation

You report quantities against work order operations using either Hours and Quantities or Super Backflush. For example, if you have a quantity of 20 completed for operation sequence numbers 10 and 20, and a quantity of 40 completed for operation sequence number 30, you report these quantities using either the Work Order Time Entry programs or the Super Backflush program. 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 instructions; 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. 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, 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 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 specific operation, that the total quantity completed plus the quantity scrapped does not exceed the quantity at operation.

Super Backflush allows entry only for pay points. To handle nonpay 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 nonpay points since the last pay point.

Before You Begin

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

► To process work orders that use quantity at operation

From the Daily Order Reporting - Process menu (G3114), choose Hours & Quantities Entry.

Hours & Quantities Entry - [Work With Work Order Time Entry]

File Edit Preferences Form Row Window Help

Select Find Add Close Seg... New... Dis... Abo Links Update OLE... Internet

Work Date	<input type="text"/>	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>	Batch Number	<input type="text" value="228"/>
Order Number	<input type="text"/> *	<input style="width: 20px; height: 20px; vertical-align: middle;" type="button" value="..."/>		
Item Number	<input type="text"/>			

Order Number	Employee Number	Equipment Number	Oper #	Ty Hrs	Shift Code	Begin Time	End Time	Hours	Quantity
451004	1		50.00	1	1			.25	
451004	1		50.00	4	1				
451004	1		60.00	1	1				.50
451004	1		60.00	4	1				
451012	8446		20.00	1	1				8.00
451012	8446		20.00	4	1				
451012	8446		30.00	1	1				1.00
451012	8446		30.00	3	1				5.00
451012	8446		30.00	4	1				

- On Work With Work Order Time Entry, complete the following fields and click Find:
 - Work Date
 - Order Number
- Choose the work order number and click Select.
- On Time Entry Revisions, verify the accuracy of the information in the following fields:
 - Employee Number
 - Equipment Number
 - Oper #
 - Ty Hrs
- Complete the following fields:
 - Hours
 - Quantity
- Review the following fields and click OK:
 - Misc. Dollars
 - Employee Rate

- Reason Code

See Also

- *Entering Hours and Quantities* to review the processing options for Hours and Quantities

Completing Work Orders with Serialized Components

When you record a completion for serialized components, the system accesses the Assign Serial Numbers program. Another form, Serial Number Associations, is only accessible if you are associating serial number-controlled components to serial number assemblies. The system displays the preassigned serial numbers on any memo lot information on the Serial Number Associations form.

After you generate serial numbers for a work order, you associate the serialized components with a serialized assembly. To associate a serialized component with a serialized assembly, you enter the associating quantity.

In addition, the completion program allows you to enter a memo lot number, 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 to do so.

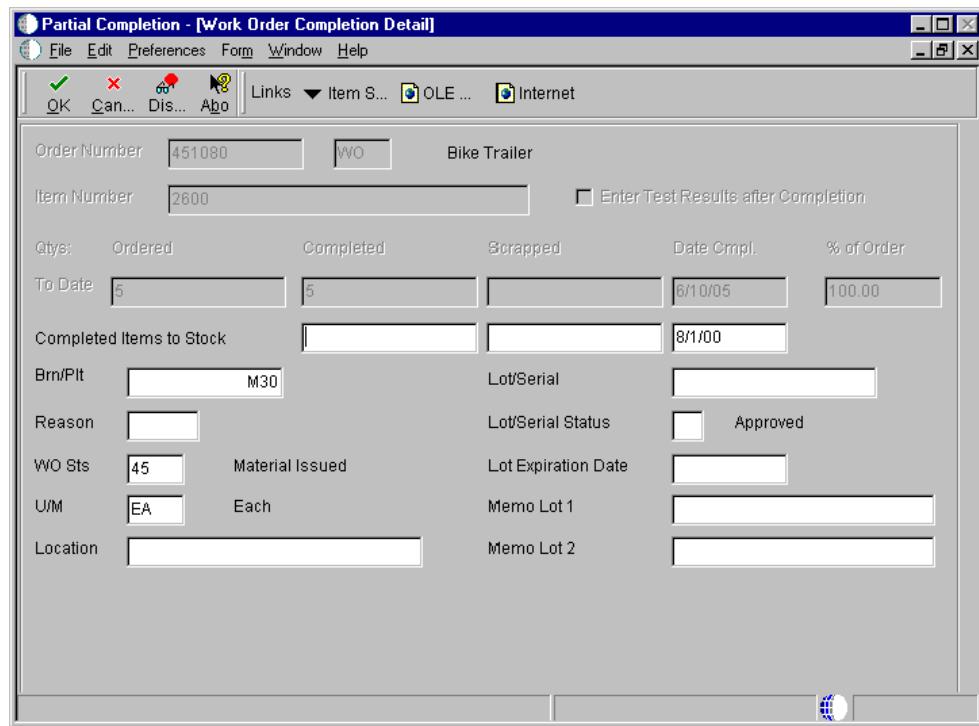
If you complete work orders with components that are not serialized, you cannot assign serial numbers to the assemblies at completion.

If you set the appropriate processing options in the completion program, the system allows you to complete multiple items using the same serial number.

► **To complete work orders with serialized components**

From the Daily Order Reporting - Process menu (G3114), choose Partial Completion.

1. On Work With Work Order Completions, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.



3. On Work Order Completion Detail, type 1 in the first field next to Completed Items to Stock.

Note

For serialized items, you can complete only one item at a time.

4. If you know the serial number, complete the following field:
 - Lot/Serial
5. If you do not know the serial number, choose Serial Numbers from the Form menu.

Partial Completion - [Work With Work Order Serial Numbers]

File Edit Preferences Form Row Window Help

Select Find Close Seg... New... Dis... Abo | Links Revisi... OLE... Internet

Order Number	451080	WO	Branch Plant	M30
Item Number	2600	Bike Trailer		
Qty Ordered	5	EA	Requested	6/10/05
Qty Completed	5	Qty Scrapped		

Lot/SN	Memo Lot 1	Memo Lot 2	Date Complete
20592	1-1		11/24/97
20593	1-1		11/24/97
20594	1-1		11/24/97
20595	1-1		11/24/97
20596	1-1		11/24/97

6. On Work With Work Order Serial Numbers, choose a number, click Select, and skip to step 10.
If a list of serial numbers does not appear, you must generate them by choosing Revisions from the Form menu.
7. On Serial Number Revisions, choose Lot/SN Generation from the Form menu.

Partial Completion - [Serial Number Revisions]

File Edit Preferences Form Row Window Help

OK Del... Can... New... Dis... Abo Links Lot/S... OLE... Internet

Order Number	451080	WO	Branch/Plant	M30
Item Number	2600		Bike Trailer	
Qty Ordered	5	EA	Requested	6/10/05
Qty Completed	5		Qty Scrapped	

Lot / SN	Memo Lot 1	Memo Lot 2	Date Complete
20592	1-1		11/24/97
20593	1-1		11/24/97
20594	1-1		11/24/97
20595	1-1		11/24/97
20596	1-1		11/24/97

Row:1

The system generates enough serial numbers for all of the items on the work order.

8. Click OK to return the list to Work With Work Order Serial Numbers.
9. On Work With Work Order Serial Numbers, choose the serial number that you want and click Select.

10. On Work Order Completion Detail, complete the second and third fields next to Completed Items to Stock
11. Complete the following optional field:
 - WO Sts
12. To complete a work order at a location other than the primary location and if you know the location, complete the following field:
 - Location
13. To choose a component to which you want to issue to a work order, choose Lot/SN Association from the Form menu.
14. On Serial Number Associations, choose Issued Items from the Form menu.
15. On Work With Serialized Issued Items, choose the components that you want to associate to the serialized assembly and click Select.
16. On Serial Number Associations, click OK.
17. On Work Order Completion Detail, click OK.

Completing Rate Schedules

Use Completions Workbench to record rate schedule completions, issue parts, and record hours and quantities for the rate. Depending on how you set the processing options, the Inventory Issues and Hours and Quantities forms appear as you complete rate schedules.

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

Note

If you use the Quality Management system when you manage rate-based information and complete quantities to inventory, you can access Test Results Entry for items that require testing.

Before You Begin

- Set the processing options to access the Inventory Issues and Work Order Time Entry programs.

► To complete rate schedules

From the Daily Processing - Repetitive menu (G3115), choose Completions Workbench.

	Item Number	Item Number Description	Quantity Completed	Quantity Scrapped	Unit Of Measure	Secondary Qty Completed	Sec UOM	Date Complete	Shift	Quantity
<input checked="" type="checkbox"/>	ITEM A-R	Repetitive Item Example			EA			08/27/03		
<input type="radio"/>	ITEM A-R	Repetitive Item Example			EA			08/27/03		
<input type="radio"/>										

1. On Completions Workbench, complete the following fields and click Find:
 - Branch/Plant
 - Order Type

- Item Number
- Effective From
- Thru

2. Complete the following fields:

- Total Scrapped
- Date Complete

3. Complete the following optional fields and click OK:

- Quantity Scrapped
- Location
- Lot/Serial Number
- Employee
- Effective From Date
- Shift

4. On Super Backflush, click OK.

5. On Inventory Issues, click OK.

6. On Time Entry Revisions, complete the following fields:

- Employee Number
- Quantity
- St

See Also

- ❑ *Entering Hours and Quantities* to review the processing options for Hours and Quantities
- ❑ *Processing Work Orders Through Super Backflush* to review the processing options for Super Backflush

Processing Options for Completions Workbench (P3119)

Defaults

1. Enter the Schedule Type. Default value is 'SC'
2. Enter the Employee Number (Optional)
3. Enter the Production Line (Optional)
4. Enter the Number of Days to Add to the From Date for the Thru Date (Optional)
5. Enter the Status From (Optional)
6. Enter the Status Thru (Optional)
7. Enter the status code to use when closing rates. Default value is '99'

Versions

Enter the version for each program. If left blank, 'ZJDE0001' will be used.

1. Super Backflush (P31123)
2. Hours and Quantities (P311221)
3. Material Issues (P31113)
4. Enter/Change Rate Schedule (P3109)
5. Item Ledger Inquiry (P4111)
6. Line Schedule Review (P3152)
7. Schedule History Inquiry (P31226)
8. Work Order Completions (P31114)
9. Lot Master Revisions (P4108)
10. Hours and Quantities Update (R31422)
11. Name Search (P0101)
12. Test Results Revisions (P3711)

Process

1. Enter a '1' to automatically process hours and quantities using the version for R31422. If left blank, R31422 should be submitted manually.
-

Work Order and Rate Schedule Information

Work Order and Rate Schedule Information

After you have processed work orders or rate schedules, you can purge work orders and rate schedules from the system, review component information, such as usability, availability, and supply and demand, and print reports that you need to effectively manage work order or rate schedule information. You can also compare bills of material or parts lists by using the Bill of Material Comparison program.

Deactivating Work Orders and Rate Schedules

You might want to deactivate any work orders or rate schedules that are no longer active or that have been completed. To maintain records of the work order or rate schedule and its progress, you should close the order or schedule before you deactivate it. This ensures that quantity information in the Inventory Management system and manufacturing accounting information is traceable after you deactivate the work order or rate schedule.

You can deactivate work orders or rate schedules that you no longer use in one of the following ways:

Change the status to closed	When you change the status of a work order or rate schedule to closed, the system identifies the order or schedule as inactive, but does not delete it. This is the recommended way to deactivate a work order or rate schedule. This method enables you to keep complete historical records of the work order or rate schedule and its associated costing and accounting transactions.
Delete	<p>When you delete a work order or rate schedule, it is removed from the system entirely. You should complete the work order or rate schedule before deleting it to ensure that manufacturing accounting and inventory information is updated. If you delete a work order or rate schedule before completing it, these records might not be in place. If the quantity completed on the work order or rate schedule is less than the quantity ordered, the system removes the remaining quantity from the Quantity on Work Order field in the Item Location File table (F41021) when you delete the order or schedule.</p> <p>Before you delete or purge an order or rate from the system, you must first complete the order, and then delete the parts list and routing instructions attached to the order.</p> <p>Additionally, you cannot delete a work order or rate schedule if any of the following is true:</p> <ul style="list-style-type: none"> • 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 or rate schedule • Labor has been recorded against the work order or rate schedule <p>If an order is in process, J.D. Edwards recommends that you report completed and scrapped quantities against it before you delete it.</p>
Purge	When you purge work orders and rate schedules, the system deletes them based on their status code. You can save the purged records in a separate purge table. If they contain information that you want to retain after you purge them and before you delete them. You can also delete a master record from a Lot Serial Number when a work order or rate schedule for a serialized parent is purged.

Reviewing Work Order and Rate Schedule Status

Use Production Status to view the status of all rates and work orders by work center or 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 transactions.

You might want to review all of your work orders or rate schedules that are at a particular status or for a particular date range to determine which ones you want to deactivate.

► **To review work order and rate schedule status**

From the Daily Processing - Repetitive menu (G3115), choose Production Status.

The screenshot shows the PeopleSoft Production Status window. At the top, there are buttons for OK, Find, Cancel, Row, and Tools. A search bar labeled 'Branch/Plant' contains 'M30'. Below the search bar are fields for 'Work Center/Line', 'Item Number' (set to 3520), 'Order Number/Type', 'Effective Date From', 'Effective Date Thru', 'Operation Status From', and 'Operation Status Thru'. A grid below the search area displays data for four rows. The columns are: Item Number, Description, Order Number, Type, Op St, Start Date, Request Date, Oper Seq, Quantity Remaining, UM, and Quantity at Operation. The first row has a checked checkbox in the first column and is highlighted in blue. The other three rows have unchecked checkboxes in the first column.

	Item Number	Description	Order Number	Type	Op St	Start Date	Request Date	Oper Seq	Quantity Remaining	UM	Quantity at Operation
<input checked="" type="checkbox"/>	3520	Manufacturing Item 3	452550 WO	30	05/27/05	05/30/05	10.00	0 EA			
<input type="checkbox"/>	3520	Manufacturing Item 3	452568 WO	30	05/27/05	05/30/05	10.00	0 EA			
<input type="checkbox"/>	3520	Manufacturing Item 3	452550 WO	30	05/30/05	05/31/05	20.00	0 EA			
<input type="checkbox"/>	3520	Manufacturing Item 3	452568 WO	30	05/30/05	05/31/05	20.00	0 EA			

1. On Production Status, complete the following field:
 - Branch/Plant
2. Complete one, or a combination of any two, of the following fields:
 - Work Center/Line
 - Item Number
 - Order Number
3. To narrow your search to orders or schedules by date, complete the following fields:
 - Effective From
 - Thru
4. To limit your search to orders or schedules at a specific status, such as complete, complete the following fields and click Find:
 - Operation Status
 - Thru

Processing Options for Production Status (P3115)

Defaults

1. Enter the From Status. (Optional)
2. Enter the Thru Status. (Optional)
3. Enter the number of days to add to today's date to calculate the default Thru Date. (Optional)

Process

1. Enter '1' to subtract Quantity Cancelled/Scrapped from the Remaining Quantity. If left blank, the remaining quantity value will include cancelled/scrapped quantity.

Changing 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 deactivate a work order. This method enables you to keep complete historical records of the work order and its associated costing and accounting transactions.

► To change the status of work orders to closed

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

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

1. On Work With Manufacturing Work Orders, complete the following field and click Find:
 - Skip to Order Number
2. Choose an order number and click Select.

The screenshot shows the PeopleSoft Work Order Details interface. At the top, there is a toolbar with icons for OK, Cancel, Form, Tools, and a magnifying glass. Below the toolbar, the title bar says "Work Order Details". The main area is divided into two tabs: "Status & Type" (which is selected) and "Bill of Materials". The "Status & Type" tab contains fields for Order No/Type (451004), WO Desc (Touring Bike, Red), Branch/Plant (M30), Item No. (220), and various status and type dropdowns. The "Bill of Materials" tab is currently empty. At the bottom right of the window, there is a vertical scroll bar.

3. On Work Order Details, click the Status & Type tab, type 99 in the following field, and then click OK:

- Status

See Also

- Entering Work Order Headers* to review the processing options for Manufacturing Work Orders

Changing the Status of Rate Schedules to Closed

From the Shop Floor Management Advanced menu (G3131), choose Batch Rate Close.

For Repetitive Manufacturing, use the Close Rates program to close rate schedules if either of the following are true:

- Status is less 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 does the following:

- Purges the rate schedule data from the Line/Item Relationship Master table (F3109)
- Releases the commitment of any quantities for the applicable rates

See Also

- Purging Work Orders* for information about purging data

Note

When you set the status to 3 on the Process tab, the system no longer allows you to process Manufacturing Accounting for that rate.

Processing Options for Batch Rate Close (R3191)

Process

Enter in the following:

1. Enter the date to compare to the Rate Effective Thru Date. All rates for which the Thru Date is less than this date will be closed. If left blank, no rates will be closed.
 2. Enter the status for closed rates. If left blank, '99' will be used.
-

Purging Work Orders

From the Shop Floor Management Advanced menu (G3131), choose Purge Orders.

The Work Order Purge program deletes selected work orders or rate schedules from your system. The system purges the selected work orders and rate schedules and their associated information from the following tables:

- Work Order Master File (F4801)
- Work Order Instructions File (F4802)
- Work Order Parts List (F3111)
- Work Order Routing (F3112)
- Work Order Time Transactions (F31122)

When you purge work orders or rate schedules, the system deletes them based on their status code. You save the purged records in a separate table, if they contain information that you might want to retain. You can also delete a master record from a Lot Serial Number when you purge a work order or rate schedule for a serialized parent.

To save the records that you purge in a special purge library, you must set the processing option. The system names this library JDE, followed by the current system date (without separators). For example, if you purge the records on January 1, 2001, the purge library is named JDE010101. The system creates a physical table with the same name within that library. If you purge the same table multiple times on the same day, the system adds the purged records to the records already in the purge table for that day.

Before You Begin

- Complete the accounting for the work orders or rate schedules before you purge them from the system. See *About Work Orders in Accounting* in the *Product Costing and Manufacturing Accounting* documentation for information about how to complete the accounting.

Processing Options for Work Order Purge Program (R4801P)

Process

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

Save Flag

Reviewing Work Order and Rate Schedule Information

Throughout the manufacturing process many different positions and business areas need access to product and manufacturing information. You might need information to solve problems, make decisions, or answer questions. You can review information for components, such as useability, availability, or supply and demand. You can review all item transactions in the system. Additionally, you can review all work orders that make up the load at a particular work center.

See Also

- Reviewing Part Availability*
- Reviewing Parts List Availability*
- Managing Shortage Information*
- Reviewing the Status of Hours*
- Reviewing the Status of Quantities*
- Reviewing the Status of Operation Quantities*

Reviewing Part Usability

Use the Part Usability 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 limit the information that appears to a specific lot, grade, or potency of the item.

► To review part usability

From the Daily Order Preparation - Discrete menu (G3111), choose Part Useability.

1. On Work With Useability, complete the following fields and click Find:

- Component
- Quantity

2. Review the following fields and click Close:

- Item Number
- Prod. QTY
- Batch Quantity
- Short Item No
- Type Bill

Processing Options for Part Useability (P30212)

Default

Enter default Type of Bill

Type Bill of Material

Versions

Enter the version to be used for each program. If left blank, version 'ZJDE0001' is used.

Item Search (P41200)

Work Order Entry (P48013)

Item Availability (P30205)

Item Master (P4101B)

BOM Inquiry (P30200)

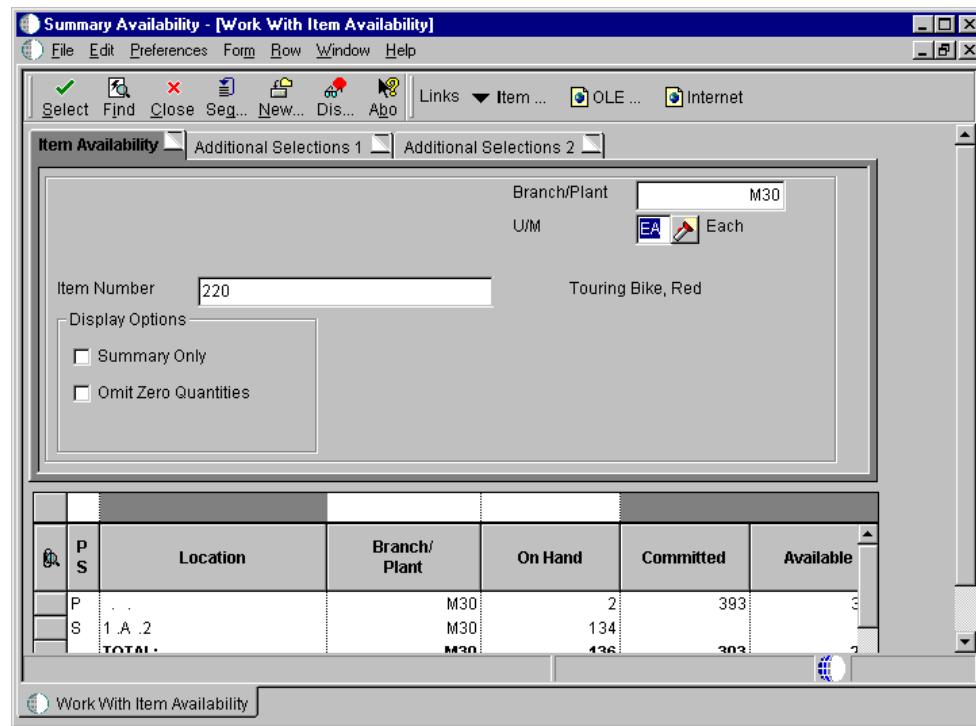
Item Availability (P41202)

Reviewing Summary Availability

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

► To review summary availability

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



1. On Work With Item Availability, complete the following fields and click Find:
 - Item Number
 - Branch/Plant

2. Review the following fields and click Close:
 - PS
 - Location
 - On Hand
 - Committed
 - Available
 - On Receipt

Processing Options for Summary Availability (P41202)

Versions

Enter the version for each program. If left blank, ZJDE0001 will be used.

1. Item Master
2. Item Notes
3. Item Search
4. Purchase Order Inquiry

-
- 5. Customer Service Inquiry
 - 6. Open Work Orders
 - 7. Supply and Demand
 - 8. Bill of Material
 - 9. Lot Availability
 - 10. Item Ledger
 - 11. Branch/Plant Item Information
 - 12. Location Master
 - 13. Item Location Information
- Display
- 1. Grade Information

Blank = No information is displayed

1 = Display grade information

- 2. Potency Information

Blank = No information is displayed

1 = Display potency information

- 3. Quality Management

Blank = No information is displayed

1 = Use Quality Management.

- 4. Quantity - Primary Units of Measure

Blank = No information is displayed

1 = Also display primary units

- 5. Truncate/Round

Blank = Default to round up

1 = Truncate information in the grid

2 = Round up

- 6. Customer Self-Service

Blank = Bypass Customer Self-Service functionality

1 = Activate Shopping Cart mode

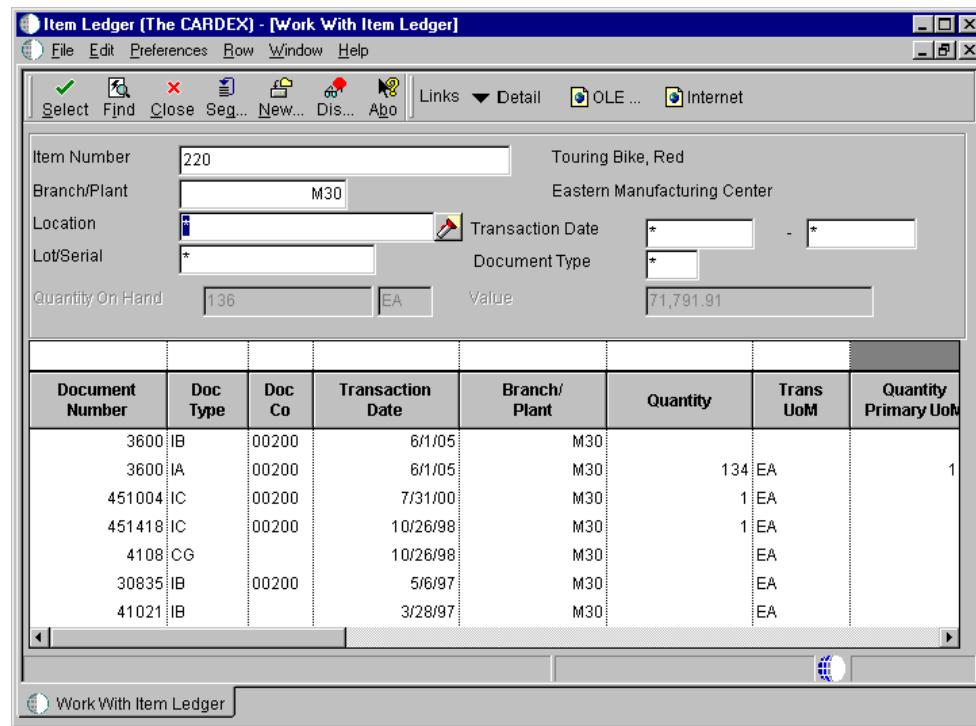
Reviewing Item Ledger Information

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

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

► To review item ledger information

From the Periodic Functions - Discrete menu (G3121), choose Item Ledger (The CARDEX).



1. On Work With Item Ledger, complete the following fields and click Find:
 - Item Number
 - Branch/Plant
2. Choose a document number and click Select.

3. On Item Ledger Detail, review the information that appears and click Cancel.

Processing Options for Item Ledger (The CARDEX)

Default

Enter a Document Type. If left blank, '*' will be the default value and all document types will be shown.

1. Document Type

Versions

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

1. Load and Delivery Ledger Inquiry (FUTURE)

Display

1. Enter a '1' to display Quantity in Primary Units of Measure along with Quantity in Transaction Units of Measure.

Reviewing Dispatch List Information

A dispatch list is a sequence listing of manufacturing work orders or rate schedules that contains detailed information about location, quantity, and capacity requirements. You should generate dispatch lists daily by work center or line.

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

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

The system calculates the remaining machine, labor, and setup run hours and the remaining quantities of the item to be produced, as follows:

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

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

Remaining setup time Standard setup time - hours recorded

Remaining quantity Total quantity ordered - completed quantity

Before You Begin

- Display the actual quantities by completing one of the following:
 - Enter actual quantities on the Time Entry Revisions form and run the Hours and Quantities Update. See *Entering Hours and Quantities* and *Updating Hours and Quantities Manually* for the steps to complete these tasks.
 - Use the online update function to post the entries. See *Updating Hours and Quantities by Batch* for the steps to complete this task.

► To review dispatch list information

From the Daily Order Preparation - Discrete menu (G3111), choose Dispatch List.

Order Number	Type	Oper Seq	Oper Status	Start Date	Reqd Date	Remaining Machine Hours	Remaining Labor Hours	Remaining Setup Hours	Remain-Quant
452306	WO	10.00		4/20/05	4/27/05	.25			
452322	WO	10.00		4/26/05	4/29/05		.25	3.00	
452306	WO	20.00		4/28/05	5/5/05			3.00	3.50
452314	WO	10.00		4/26/05	5/9/05			3.00	3.50
452306	WO	30.00		5/6/05	5/13/05			5.00	3.00

1. On Work With Operation Dispatch, complete the following field and click Find:
 - Work Center

2. Choose an order number and click Select.

The screenshot displays the 'Operation Dispatch Detail Revisions' window from the PeopleSoft application. The window has a title bar 'Operation Dispatch Detail Revisions' and a toolbar with buttons for OK, Cancel, Tools, and Forklift. The main area contains several groups of input fields:

- Top Group:** Order Number/Type (452306), WO (WO), Forklift, Op Status (40), Op Seq (10.00), Start Date (04/20/05), WO Status (40), WO Type, Rqstd Date (04/27/05).
- Middle Group:** Rmng Run Mch (0.25), Rmng Qty (1), Std Mch Hrs, Rmng Run Lab (0.25), Std Labor Hrs, Rmng Setup Hrs, Std Setup Hrs.
- Bottom Group:** Item Number (6000), Forklift, Supplier, PO Number, PO Type, SO Num. (00002588), SO Type, Tool ID, Crew Size (1.0).

3. On Operation Dispatch Detail Revisions, review the information that appears and click Cancel.

Processing Options for Dispatch List (P31220)

Defaults

1. Enter the Default OPERATION Status Information to preload to the screen at initial inquiry. If left blank, no value will be preloaded:

From Status

Thru Status

2. Enter the Default Number of Days:

Prior to todays date for the From Date

After todays date for the Thru Date

Versions

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

Work Order Parts Inquiry Version

Process

1. Enter '1' to subtract Quantity Cancelled/Scrapped from the Remaining Quantity. If left blank, the remaining quantity value will include cancelled/scrapped quantity.

Reviewing Production History

To solve problems, make decisions, and answer questions, you might need to review the historical information on your work orders or rate schedules. When you review the production history you can see such information as date updated and the quantity ordered, shipped, and cancelled.

Caution

For Repetitive Manufacturing, to have correct data appear on the Production History form, you must not simultaneously process records with the same hour type and operation sequence number.

► To review production history

From the Daily Processing - Repetitive menu (G3115), choose Production History.

Oper Seq#	Date Updated	Shift Code	Order Number	Or Ty	Quantity Ordered	UM	Quantity Shipped	Quantity Canceled	Accumulated Run Labor	Accumulated Qua Shipped
1										

1. On Work With Production History, 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 click Find:
 - Branch/Plant

3. Review the information.

Processing Options for Production History (P31227)

Defaults

Enter values:

1. Sequence Number - Operations
 2. Enter the default # of days to be added to today's date to arrive at Thru date
 3. Shift Code
-

Reviewing Production Line Quantities

For Repetitive Manufacturing, use Line Dispatch List to view the planned and remaining quantities for all items scheduled for a particular production line.

► To review production line quantities

From the Daily Processing - Repetitive menu (G3115), choose Line Dispatch List.

Branch Plant	Line	Date	S h	Seq	Item Number	Description
M30	R-A1	6/13/05	1	999.99	2031	Aluminum Frame, Touring
M30	R-A1	6/13/05	1	999.99	2032	Aluminum Frame, Mountain
M30	R-A1	6/13/05	2	999.99	2033	Aluminum Frame, Sport
M30	R-A1	6/14/05	1	999.99	2031	Aluminum Frame, Touring
M30	R-A1	6/14/05	1	999.99	2032	Aluminum Frame, Mountain
M30	R-A1	6/14/05	2	999.99	2033	Aluminum Frame, Sport

1. On Work With Line Dispatch List, complete the following fields and click Find:

- Branch/Plant

- Line/Cell

2. Review the information.

Processing Options for Line Dispatch List (P3159)

Defaults

1. Enter the number of days to add to today's date for the Thru date.
2. Enter the Shift Code. (Optional)
3. Enter the From Status. (Optional)
4. Enter the Thru Status. (Optional)

Process

1. Enter '1' to subtract Quantity Cancelled/Scrapped from the Remaining Quantity. If left blank, the remaining quantity value will include cancelled/scrapped quantity.

Reviewing Production Across Lines

Use Work With Line Schedule Review to view the schedule of the production lines for the family of items produced. If items are produced on multiple production lines, use this workbench to view production across lines while staying within each line's capacity.

You can also view the information graphically.

To review production across lines

From the Daily Processing - Repetitive menu (G3115), choose Line Schedule Review.

Q	2nd Item Number	Date	Load%	Capacity%	Avail%	S h	Oper Seq#	Capacity
	2031	6/13/05	44	44	58	1	999.99	144 V
	2032	6/13/05	167	211		1	999.99	144 V
	2033	6/13/05			100	2	999.99	0 V
	2031	6/14/05	44	44	58	1	999.99	144 V
	2032	6/14/05	167	211		1	999.99	144 V
	2033	6/14/05			100	2	999.99	0 V

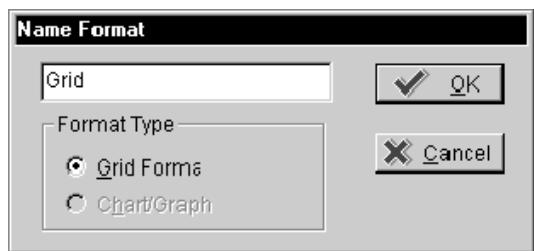
1. On Line Schedule Review, complete the following fields and click Find:

- Line/Cell
- Branch/Plant
- Date From
- Thru

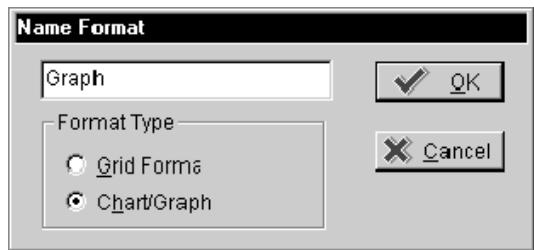
2. Review the information.

To view information graphically, you must create two grid tabs: one tab for the data as it already appears and one tab for the data to appear graphically.

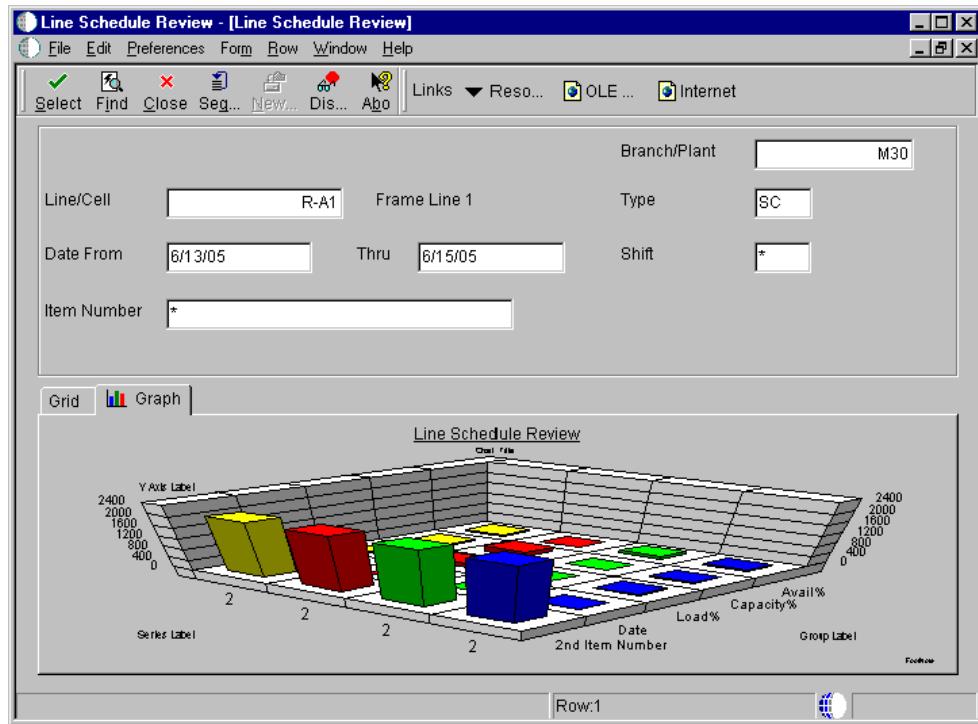
3. To create the first tab, place your cursor anywhere in the detail area, right-mouse click, choose Format, and then choose New Format.



4. On Name Format, complete the field to the left of the OK button.
 5. Click the following option and click OK:
 • Grid Forms
 6. To create the second tab for the graphical display, place your cursor anywhere in the detail area, right-mouse click, choose Format, and then choose New Format.



7. On Name Format, complete the field next to the left of the OK button.
 8. Choose the following option and click OK:
 • Chart/Graph
 The Chart Assistant window appears.
 9. Choose a range of data from the detail area that you want to view graphically, such as capacity percent, and then click Continue.



Processing Options for Line Schedule Review (P3152)

Defaults

1. Document Type (Default is 'SC')
2. Shift (Optional)

Versions

Enter the version for each program. If left blank, 'ZJDE0001' will be used.

1. Rate Revisions (P3109)

Reviewing Work Center Loads

Use Schedule Review to review the rate schedule load and the work order load for a work center. You can review a day, week, or month of a work center load. You can also select a specific date range to view the load for the work center. If you need to adjust the scheduled load at the work center, you can access several different forms to make adjustments. Use a processing option to specify the inclusion of loads generated by work order before or after loads generated by rate schedule.

► To review work center loads

From the Daily Processing - Repetitive menu (G3115), choose Work Center Schedule Review.

1. On Work Center Schedule Review, complete the following fields and click Find:

- Branch/Plant

- Work Center
- Order Type
- Effective From
- Thru

2. Review the information.
3. To view the information graphically, click the Graph tab.
4. To view the information in grid format, click the Grid tab.

The screenshot shows the PeopleSoft Work Center Schedule Review application. At the top, there's a toolbar with icons for Portal, VWW, Intranet, and Training. Below that is a menu bar with Active Foundation selected. The main area has a title bar "Work Center Schedule Review". Underneath are several buttons: Select, Find, Close, Form, Row, Tools. The search criteria are displayed: Branch/Plant (M30), Work Center (200-901), Order Type (WO), Effective From (06/09/05), and Thru (06/28/05). Below the search area is a grid titled "Customize Grid" with columns: 2nd Item Number, Date, Order Number, Type, Request Date, Planned Quantity, UM, Line/Cell, Op St, and Capacity Percentage. The grid contains the following data:

2nd Item Number	Date	Order Number	Type	Request Date	Planned Quantity	UM	Line/Cell	Op St	Capacity Percentage
2600	06/09/05	451080 WO		06/10/05	5 EA				3.91
220	06/24/05	451004 WO		06/24/05	2000 EA				0.06
220	06/24/05	451004 WO		06/24/05	2000 EA				0.09
220	06/24/05	451004 WO		06/24/05	2000 EA				0.22
220	06/27/05	451004 WO		06/27/05	2000 EA				0.31

Processing Options for Work Center Schedule Review (P31224)

Defaults

1. Document Type

A specific document type
Blank = No default

Disp Options

1. Subfile Dates

1 = Monthly
2 = Weekly
3 = Daily

WO Processing

1. Include Work Order Generated Loads

1 = Before Rate loads
2 = After Rate loads
Blank = No Work Order loads

2. From Operation Status

Include as an active operation
Blank = No specific status to include

3. To Operation Status

Include as an active operation
Blank = No specific status to include

Versions

Exit Versions

A specific version
Blank = ZJDE0001

1. Rate Revisions (P3109)

Reviewing Process Orders

For Process Manufacturing, use the Process Order Inquiry program to display:

- Each operation of the process
- The ingredients, or parts lists
- A list of the co-products and by-products
- The existing intermediates of a work order, per operation

From this program, you can do the following:

- Access the Summary Availability Summary program
- Access and update the Enter/Change Order program
- Display the intermediate for a specific operation, using the unit of measure defined for the intermediate instead of the primary unit of measure
- Display intermediates for all operations
- Access the Enter/Change Bill program to make updates

► To review process orders

From the Daily Order Preparation - Process menu (G3113), choose Process Order Inquiry.

Process Order Inquiry - [Work with Process Orders]

File Edit Preferences Form Row Window Help

Select Find Close Seg... New... Dis... Ago Links Order... OLE... Internet

Order Number/Type	451469	WO	Branch/Plant	M30
Item Number	5000	Lubricant Process		
Quantity Ordered	1	EA		
Quantity Completed				
Quantity Scrapped				

Work Unit	Oper Seq#	Description	Op St	Run Machine	Run Labor	Setup Labor
200-201	10.00	Filter bulk oil		.05		.25
200-202	20.00	Blend additives				
200-203	30.00	Refine				
200-202	40.00	Blend graphite				

1. On Work with Process Orders, complete the following field and click Find:
 - Order Number/Type
2. Choose a record and then choose Ingreds/Co/By-Prod from the Row menu.

PeopleSoft®

2nd Item Number	Description	Qty Ordered/ Output	Qty Issued/ Completed	UM	Stocking Type	Co By	Item Number	3rd Item Number
<input type="checkbox"/>	Ingredients							
<input type="checkbox"/>	5001	Oil	50	GA	P		60716 5001	
<input type="checkbox"/>		Co/By Products						
<input type="checkbox"/>	5010	Sludge	2	GA	B		60783 5010	

3. On Work with Ingredients and Co/By-Products, review the following fields:
 - Qty Ordered/ Output
 - Qty Issued/ Completed
 - Co By

Working with Supply and Demand Information

Information about the supply and demand for an item helps you accurately plan for future needs. You can monitor information about how many items are on demand, available in supply, and available to promise (ATP). For example:

- Personnel in sales order entry can provide customers with an expected order ship date.
- Purchase agents can evaluate future orders and stocking needs.
- Warehouse resources can be planned around receipts and order picking.

The information is interactively displayed from the Procurement, Shop Floor Management, Inventory Management, and Sales Order Management systems.

If you are using the Enterprise Requirements Planning and Execution (ERPx) system in conjunction with the Inventory Management system, you should set up the supply and demand inclusion rules.

Reviewing Supply and Demand Information

Use the Supply/Demand program to review demand, supply, and available quantities for a specific item. You can also access the following forms to confirm detail information:

- Work With Order Scheduling
- Parts Availability
- Work With Detail Messages
- Work With Time Series
- Work With Pegging Inquiry
- Work With Item Availability
- Customer Service Inquiry
- Plant Manufacturing Data

The demand quantities are shown by date and can include safety stock, quantities on sales orders, work order parts lists, planned order demand for lower levels, and interplant and forecasted demand.

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 review supply and demand information

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

The screenshot shows a PeopleSoft application window titled "Work With Supply and Demand". The top navigation bar includes links for Portal, WWW, Intranet, Training, Home, Help, Personalize, Change Role, and Sign Out. The main title bar says "Work With Supply and Demand". The toolbar below has buttons for Find, Cancel, Form, Row, Tools, and a magnifying glass icon. The search bar contains "Item Number: 2001" and "Branch/Plant: M30". Below the search bar are filters for "Thru Date" (set to blank), "UOM" (set to EA), and "Leadtime Level" (set to 8). The data grid displays records from 21 to 30. The columns are: Promise Date, Project Demand, Project Supply, Project Available, Project Number, Demand, Supply, Quantity Available, Order No, Type, and Branch/Plant. The data shows various dates from 09/11/03 to 06/24/05, with corresponding demand and supply values, and order numbers like 451119 WO and 451012 WO. A checked checkbox is visible in the first column of the last row.

	Promise Date	Project Demand	Project Supply	Project Available	Project Number	Demand	Supply	Quantity Available	Order No	Type	Branch/Plant
<input type="checkbox"/>	09/11/03							100		1383	WP
<input type="checkbox"/>	09/18/03							100		1283	WP
<input type="checkbox"/>	09/18/03							100		1183	WP
<input type="checkbox"/>	09/25/03							100		1083	WP
<input type="checkbox"/>	09/25/03							100		983	WP
<input type="checkbox"/>	04/27/05								167	1150	451119 WO
<input type="checkbox"/>	04/27/05									167	M
<input type="checkbox"/>	06/23/05							10		1180	451012 WO
<input checked="" type="checkbox"/>	06/23/05							12		1148	451004 WO
<input type="checkbox"/>	06/24/05										M

1. On Work With Supply and Demand, complete the following fields and click Find:
 - Branch/Plant
 - Item Number
2. Review the information that appears and click Close.

See Also

- Processing Options for Supply and Demand Inquiry (P4021)* in the *Manufacturing and Distribution Planning* documentation for more information about supply and demand

Printing Supply and Demand Information

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 the following categories:

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

You can set the processing options to customize your report in various ways such as the following:

- Omitting item records that have a zero quantity available
- Controlling which versions of the associated programs that you use to compile the report
- Displaying availability by grade or potency ranges

Processing Options for Supply and Demand Report (R4051)

Process 1

1. Enter a '1' to deduct Safety Stock from Availability.

Safety Stock Flag

2 . Enter a '1' by the following Routing Quantities to be considered on hand. Any quantity not included will be displayed on the appropriate date.

Quantity in Transit

Quantity in Inspection

User Defined Quantity 1

User Defined Quantity 2

Process 2

-
3. Enter a '1' to summarize all In Receipt Routing Steps into one line.
Receipt Routing Summary Flag
4. Enter a '1' to summarize the Item Balance Quantity records.
Item Balance Quantity Summary Flag
5. Enter the thru date for the period of transactions to appear on the report. If left blank, all transactions will be printed.
Effective Thru Date
6. Enter the version of Supply/Demand Inclusion Rules to be used for processing.
Supply/Demand Inclusion Rules
- Print
1. Enter one of the following: '' = No ATP Line, '1' = ATP Line, '2' = Cumulative ATP Line
ATP Line Flag
- Display 1
1. Enter a '1' to print Planned Orders from the MRP/MPS/DRP generations. If left blank, Planned Orders will not print.
Planned Order Flag
2. Enter the Forecast Type(s) to be included (Up to 5 types). If left blank, the program will not include any Types. Example: for types 01, 02, & BF, enter '0102BF' etc.
Forecast Types (5 types maximum)
3. 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.
Forecast Lead Days
4. Enter a '1' to omit 'Bulk Stocking Type records from report. Blank is the default and 'Bulk' record types will be printed.
Bulk Stocking Type Flag
- Display 2
5. Enter the Unit of Measure you would like to appear on the report. If left blank, Primary units will be used.
Unit of Measure
6. Enter '1' to display all quantities at Standard Potency.
Standard Potency Flag
7. Enter '1' to reduce quantity available due to lot expiration. (Note: This option will not work with ATP. If this option has to work, Option 1 in Print Options must be set to blank or 2).
Lot Expiration Flag
- Process Mfg
1. Enter the Rate Base Schedule Type to be included on the Supply/Demand report. If left blank, Rate Based Items will not appear. (FUTURE)
Rate Base Sched Type (FUTURE)
-

Working with Bills of Material

After you process work orders or rate schedules, you can compare bills of material or parts lists either online by using the Bill of Material Comparison program, or by reviewing any of three reports. Use the comparisons to what differences exist between the parts lists or bill of material for two different items.

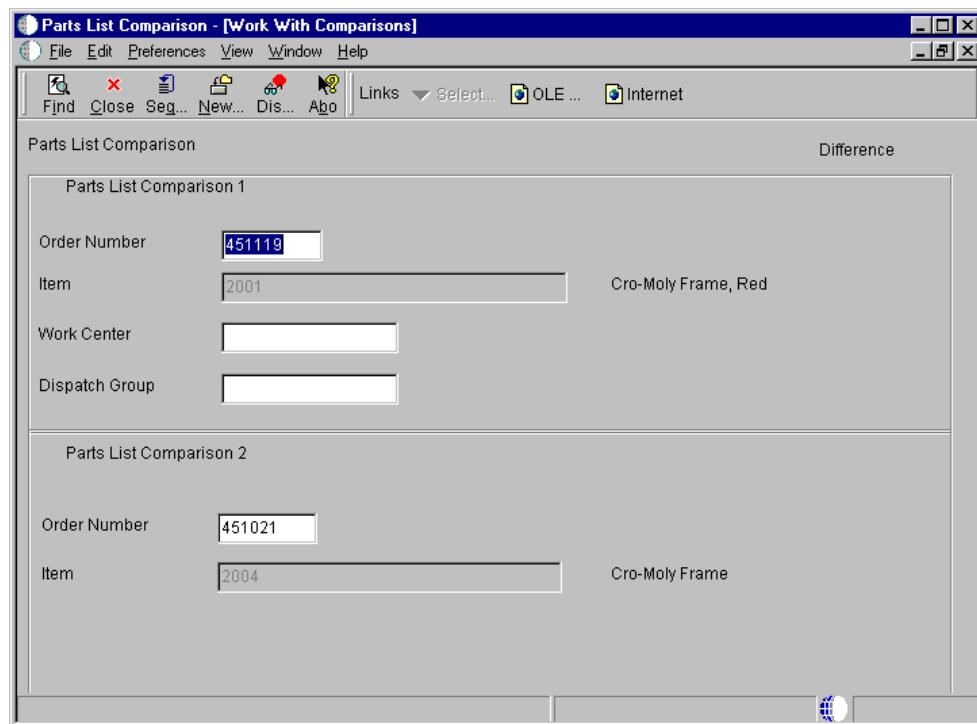
Comparing Bills of Material

Use the Bill of Material Comparison program to compare bills of material or parts lists. The system displays all the components of both items or only those components that are different between the two, depending on your processing option selections.

► To compare two parts lists

From the Daily Order Preparation - Discrete menu (G3111), choose Parts List Comparison.

From the View menu, you can choose to compare by bill of material instead of parts list by choosing BOM Comparison.



1. On Work With Comparisons, choose Mode, then All or Difference from the View menu to display either all the parts or only those that are different.
2. Complete the following field for the first parts list:
 - Order Number
3. Complete the following optional fields under the Parts List Comparison 1 heading:
 - Work Center
 - Dispatch Group
4. Complete the following field under the Parts List Comparison 2 heading and click Find:
 - Order Number

Parts List Comparison - [Display Comparisons]

The screenshot shows a software application window titled "Parts List Comparison - [Display Comparisons]". The menu bar includes File, Edit, Preferences, Window, Help, Find, Close, Seg..., New..., Dis..., Abo, Links, Disp..., OLE..., Internet. The main area is titled "Parts List Comparison" and contains a table with the following data:

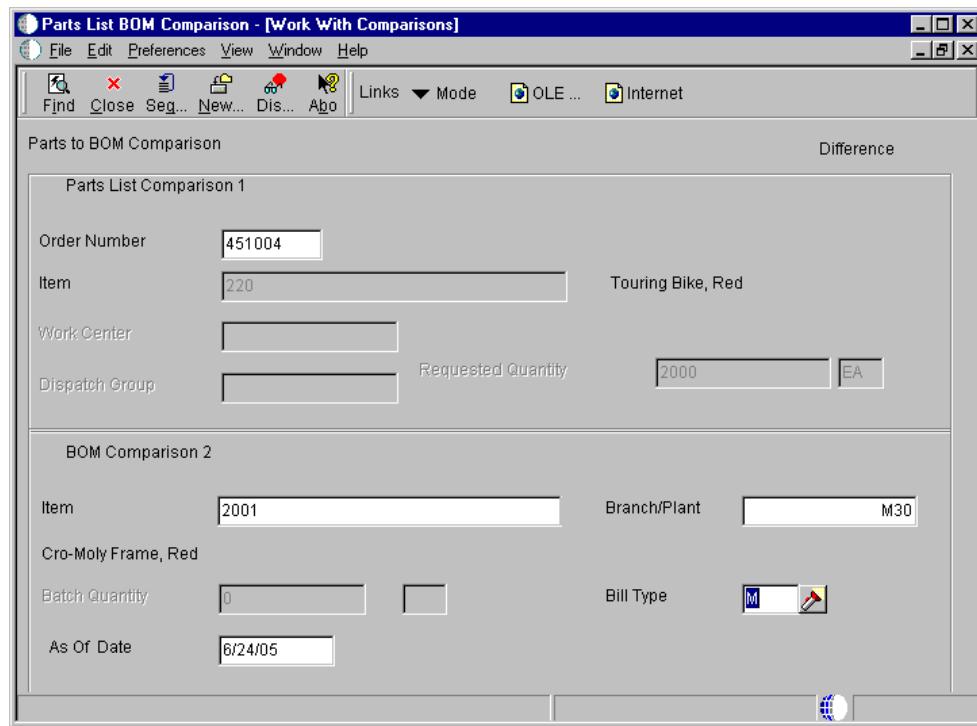
Work Center	2nd Item Number	/	Quantity Item 1	/	UOM Item1	/	Quantity Item 2	/	UOM Item2	/	Description
200-112	9001		0				153	CM			25 mm Cro-Moly
200-112	9002		0				113	CM			50 mm Cro-Moly
200-112	9004		0				10	CM			50 mm Cro-Moly
200-141	9011		225	ML			0				Paint, Red
200-141	9031		225	ML			0				Primer
200-999	2004		1	EA			0				Cro-Moly Frame
200-999	2005		2	EA			0				Chain Stay

5. On Display Comparisons, review the information and click Close.

► To compare a bill of material and a parts list

From the Daily Order Preparation - Discrete menu (G3111), choose Parts List BOM Comparison.

From the View menu, you can choose to compare two bills of material or two parts lists instead of a bill of material and a parts list.



1. On Work With Comparisons, complete the following field under the Parts List Comparison 1 heading:
 - Order Number
2. Complete the following fields under the BOM Comparison 2 heading and click Find:
 - Item
 - Branch/Plant
 - As Of Date
 - Bill Type

Work Center	2nd Item Number	Quantity Item 1	UOM Item1	Quantity Item 2	UOM Item2	Short Item No	3rd Item Number
200-141 9011		0	450000 ML			60935 9011	
200-141 9031		0	450000 ML			61137 9031	
200-143 9026		0	3 LP			61081 9026	
200-901 2001		12 EA	0			60062 2001	
200-901 2006		12 EA	0			60118 2006	
200-901 2007		12 EA	0			60126 2007	
200-901 2008		12 EA	0			60134 2008	
200-901 2013		12 EA	0			60185 2013	
200-901 2014		12 EA	0			60193 2014	
200-901 2021		12 EA	0			60265 2021	

3. On Display Comparisons, review the information and click Close.

Processing Options for Bill of Material Comparison (P30204)

Defaults

1. Bill of Material Type

Blank = The system uses M for manufacturing bill of material.

Display

1. Single Level or Multilevel Comparison

Blank = The system displays a single level comparison.

1 = The system displays a single level comparison.

2 = The system displays a multilevel comparison.

2. View Mode

Blank = The system uses the bill of material mode.

1 = The system uses the bill of material mode.

2 = The system uses the parts list mode.

3 = The system uses the parts list to bill of material mode.

Process

1. Include Different Records

Blank = The system displays the components that are different between the two bills of material or parts lists.

D = The system displays the components that are different between the two bills of material or parts lists.

A = The system displays all the components of the two bills of material or parts lists.

2. Work Center or Item Summary

Blank = The system sorts the information by item number.

1 = The system sorts the information by work center.

2 = The system sorts the information by item number.

3. Subassemblies

Blank = The system includes subassemblies in the comparison.

-
- 0 = The system excludes subassemblies from the comparison.
1 = The system includes subassemblies in the comparison.
4. Phantom Items
Blank = The system includes phantom items in the comparison.
0 = The system excludes phantom items from the comparison.
1 = The system includes phantom items in the comparison.
-

Printing Bill of Material Information

You can generate several reports to review bill of material information.

Caution

J.D. Edwards recommends that you do not change the first two data sequences from the settings in the demonstration version of these reports. If you change the data selection, you might obtain unexpected or inaccurate results.

Printing a Single Level Bill of Material

From the Periodic PDM Discrete menu (G3021), choose Single Level Bill of Material Report.

Print the appropriate single-level version of the Bill of Material Print report (R30460).

See Also

- R30460, *Single Level Bill of Material* in the *Reports* documentation for a report sample

Printing a Multilevel Bill of Material

From the Periodic PDM Discrete menu (G3021), choose Multi Level Bill of Material Report.

Print the Multilevel Bill of Material report to review all the levels of components for an item.

Processing Options for Bill of Material Print (R30460)

Display

1. Inquiry Mode

Blank = The system displays the information in multilevel indented format.

1 = The system displays the information in single level format.

2 = The system displays the information in multilevel format.

3 = The system displays the information in multilevel indented format.

2. As of Date

Blank = The system uses the current date.

3. Type Bill of Material

Blank = The system uses type 'M'.

4. Display Sequence

Blank = The system sequences the information by component line number.

1 = The system sequences the information by component line number.

2 = The system sequences the information by operation sequence number.

Print

1. Detail Line

Blank = The system prints only one line of detail.

1 = The system prints a second line of detail for items appearing on the report.

2. Component Locators

Blank = The system does not print component locations.

1 = The system prints component locations.

3. Parent Item Detail Line

Blank = The system does not print a line of detail for the parent item.

1 = The system prints a line of detail for the parent item.

Process

1. Phantom Items

Blank = The system excludes phantom items from the report.

1 = The system includes phantom items in the report.

2. Process Items

Blank = The system excludes process items from the report.

1 = The system includes process items in the report.

3. Subassemblies

Blank = The system excludes subassemblies from the report.

1 = The system includes subassemblies in the report.

4. Text Lines

Blank = The system excludes text lines from the report.

1 = The system includes text lines in the report.

5. Consolidate Component Items

Blank = The system shows individual occurrences of duplicate components in the report.

1 = The system consolidates duplicate components in the report.

6. Purchased Item

Blank = The system explodes to the next level of purchased item.

1 = The system does not explode to the next level of purchased item.

7. Shrinkage

Blank = The system excludes shrink from the calculation of requested quantity.

1 = The system includes shrink in the calculation of requested quantity.

8. Scrap

Blank = The system excludes scrap from the calculation of extended quantity.

1 = The system includes scrap in the calculation of extended quantity.

9. Yield

Blank = The system excludes yield from the calculation of extended quantity.

1 = The system includes yield in the calculation of extended quantity.

10. Requested Quantity

11. Unit of Measure as Input

Printing Where Used Information

From the Periodic PDM Discrete menu (G3021), choose Where Used Item Report.

Print the Material Where Used List version of the Material Where Used report to review the parent assemblies that contain a specific component.

Processing Options for Material Where Used (R30420)

Format Option

1. Select the Mode or Style of report to be created: 1 = Single Level; 2 = Multi- Level; 3=Multi-Level

Indented

Mode of Report

2. Enter a '1' to print a second line of detail on the report. If left blank, only one line of detail will be printed.

Print Line of Detail

Interoperability

Interoperability

To fully cover the information requirements of an enterprise, companies sometimes use products from different software and hardware providers. Interoperability between different products is key to successfully implementing the enterprise solution. Full interoperability between different systems results in a flow of data between the different products that is seamless to the user. The OneWorld Interoperability function provides an interface that facilitates exchanging transactions, both inbound and outbound, with external systems.

External systems send data to the interface tables, either using an external program or using flat files and the Inbound Flat File Conversion program. The sending party is responsible for conforming to format and other requirements for the interface tables. You run a transaction process (a batch program) that validates the data, updates valid data to the J.D. Edwards application tables and sends action messages to the Employee Work Center about any invalid data.

You use an inquiry function to interactively review the invalid data for correctness, and then run the transaction process again. You repeat this process as often as necessary.

You set a processing option to specify the transaction type for the outbound transaction. The system uses the master business function for the type of transaction, creates a copy of the transaction, and places it in the interface table from which external systems can access it.

You use the purge function to remove obsolete and unnecessary data from interface tables. Your system is more efficient when you keep these tables as small as possible.

Interoperability Programs

The interoperability programs for the Shop Floor Management system are as follows:

Inbound Conversion Programs (R47002C)

- Inbound Backflush Flat File Conversion
- Inbound Completion Flat File Conversion
- Inbound Issues Flat File Conversion
- Inbound Work Order Flat File Conversion

Inbound Transaction Programs

- Hours and Quantities Inbound Processor (R31122Z1I)
- Inbound Inventory Issues Transaction (R31113Z1I)
- Inventory Completion Inbound Processor (R31114Z1I)
- Process Work Order Super Backflush Inbound Transactions (R31123Z1I)

Inbound Inquiry Programs

- Work Order Time Transactions Unedited Transaction Table (P31122Z1)
- Work Order Inventory Issues Transactions Revisions (P3111Z1)
- Outbound Work Order Revisions (P4801Z1)
- Work Order Super Backflush Transactions Revision (P3112Z1)

Purge Programs	<ul style="list-style-type: none"> • F31122Z1 File Purge Report (R31122Z1) • F311121 Delete Inventory Issues Transactions (R3111Z1P) • F4801Z1 File Purge Report (R4801Z1) • F3112Z1 Delete Super Backflush Transactions (R3112Z1P) • Outbound Work Order Purge (R4801Z1P)
Outbound Extraction Programs	<ul style="list-style-type: none"> • Outbound Work Order Extraction (R4801Z1X) • Outbound Operation Status Extraction (R4801Z2X) • Export Inventory Balances to Synquest (R31SYN02)

Converting Flat Files to Interface Tables

You can use a variety of methods to send data from external systems to the interoperability interface tables. One method is to enter the data in a flat file. If you use this method, the system converts the flat file to the interface table.

You can set a processing option to start the transaction process when the conversion completes successfully.

Before You Begin

- ❑ Ensure that the flat file is a comma-delimited ASCII text file that is stored on the hard drive of your personal computer.
- ❑ Ensure that the data conforms to the specified format. See *Converting Data from Flat Files into EDI Interface Tables* in the *Data Interface for Electronic Data Interchange* documentation for information about formatting requirements.

Setting Up the Flat File Cross-Reference

Before you can convert a flat file, you must provide a cross-reference from the flat file fields to the interface table fields. When you exchange data between OneWorld and an external system, you use flat file cross-reference information for the following conditions:

- For inbound transactions for which the external system cannot write data to the interface tables in the required format for OneWorld. In this case, the external system can write the data to a specific flat file for each transaction and record type.
- For outbound transactions for which OneWorld cannot write data to the interface tables in the format required by the external system. In this case, OneWorld can write the data to a specific flat file for each transaction and record type.

See Also

- ❑ *Converting Data from Flat Files into EDI Interface Tables* in the *Data Interface for Electronic Data Interchange* documentation for more information about this process. The process for setting up flat file cross-references for Interoperability is identical to that for EDI interface tables.

Before You Begin

- ❑ On the appropriate drives on your computer or network, set up the folders for the flat files.

► To set up the flat file cross-reference

Use one of the following navigations:

From the Forecast Interoperability menu (G36301), choose Flat File Cross-Reference.

From the Sales Interoperability menu (G42A313), choose Flat File Cross-Reference.

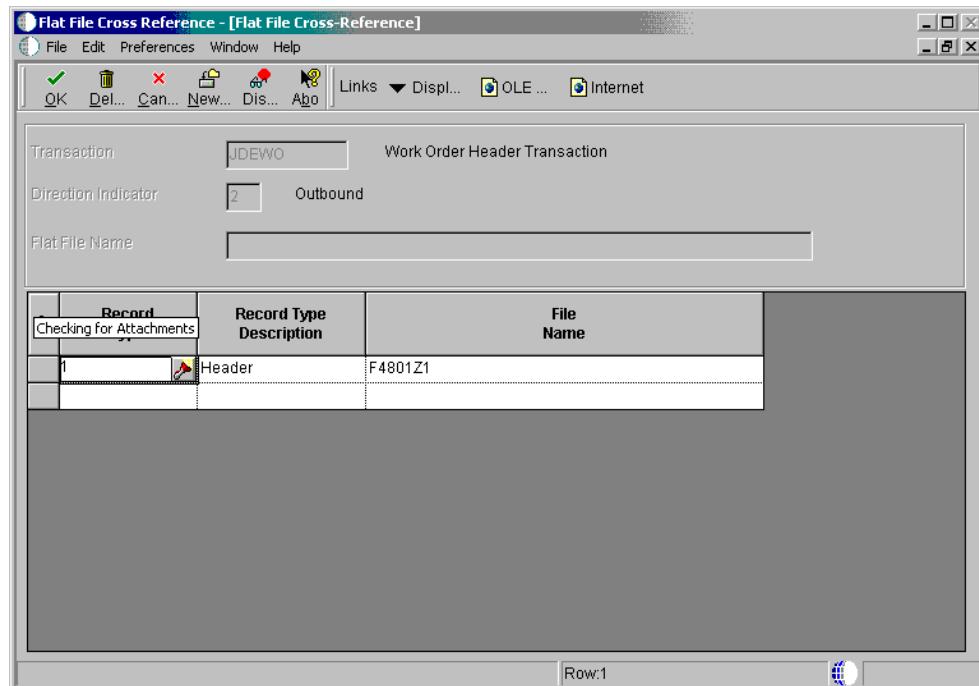
From the Inventory Interoperability menu (G41313), choose Flat File Cross-Reference.

From the Product Data Interoperability menu (G30311), choose Flat File Cross-Reference.

From the Purchasing Interoperability menu (G43A313), choose Flat File Cross-Reference.

From the Shop Floor Management Interoperability menu (G31311), choose Flat File Cross-Reference.

1. On Work With Flat File Cross-Reference, click Add.



2. On Flat File Cross-Reference, to specify the transaction type, such as receipts, complete the following field:
 - Transaction
3. To indicate whether this transaction type is Inbound (1), or Outbound (2), complete the following field:
 - Direction Indicator
4. To indicate the information source, complete the following field:

- Record Type

5. Enter the specific file name in the following field:

- File Name

The file name refers to the application table from which the system exchanges information, as defined by the record type.

6. Click OK.

Running the Conversion Program

Use one of the following navigations:

From the Forecast Interoperability menu (G36301), choose Inbound Flat File Conversions

From the Sales Interoperability menu (G42A313), choose Inbound Flat File Conversion.

From the Inventory Interoperability menu (G41313), choose Inbound Flat File Conversion.

From the Product Data Interoperability menu (G30311), choose the applicable Inbound Flat File Conversion.

From the Purchasing Interoperability menu (G43A313), choose Inbound Flat File Conversion.

From the Shop Floor Management Interoperability menu (G31311), choose the applicable Inbound XX Flat File Conversion, where XX is the process that the conversion completes, such as Inbound Completion Flat File Conversion.

You use the Inbound Flat File Conversion program (R47002C) to import flat files into J.D. Edwards interface tables. You can create a separate version of the Inbound Flat File Conversion program for each interface table. This program recognizes both the flat file from which it reads and the record types (UDC 00/RD) within the flat file. Each flat file contains records of differing lengths, based on the interface table record to which they correspond. The Inbound Flat File Conversion program uses the Flat File Cross-Reference Table (F47002) to convert the flat file into the interface tables. The Flat File Cross-Reference Table indicates to the conversion program which flat file to read from, based on the transaction type that you are receiving.

The conversion program reads each record in the flat file and maps the record data into each field of the interface tables, based on the text qualifiers and field delimiters that are specified in the flat file.

The conversion program inserts the field data as one complete record in the interface table. If the conversion program encounters an error while converting data, it withholds the data in error and continues processing the conversion. If the data is successfully converted, the system automatically starts the transaction process for that interface table, provided that you set the processing options in the conversion program to do so. For more information about error checking, see *Checking for Errors* in the *Interoperability Guide*.

See Also

- Receiving Transactions from External Systems* for information about the transaction process programs

Processing Options for Inbound Flat File Conversion (R47002C)

Transaction

1. Enter the transaction to process.

Separators

1. Enter the field delimiter.
2. Enter the text qualifier.

Process

1. Enter the inbound processor to run after successful completion of the conversion.
 2. Enter the version for the inbound processor. If left blank, XJDE0001 will be used.
-

Receiving Transactions from External Systems

From the Shop Floor Management Interoperability menu (G31311), choose one of the following:

- Inbound Hours and Quantity Processor
- Inbound Inventory Issues Processor
- Inbound Completion Processor
- Inbound Super Backflush Processor

When an external system sends inbound transactions, the system stores the data in interface tables. These tables contain unedited transactions. You must then run the appropriate transaction process to edit the transactions and update the application tables. For example, if you receive transactions in the Work Order Time Transactions Unedited Transaction Table (F31122Z1), you run the Work Order Time Transactions Unedited Transaction Table program (P31122Z1) to update the Work Order Time Transactions table (F31122).

Note

When you run the Inbound Flat File Conversion program and it completes successfully, the system automatically starts the transaction process, if so specified in the processing option for the conversion.

To be received in the interface tables, data from an external system must conform to the minimum field requirements specified for the interface table.

The transaction process performs the following:

- Validates the data in the interface table (for example, F31122Z1) to ensure that the data is correct and conforms to the format defined for the Shop Floor Management system
- Updates the associated application table (for example, F31122) with validated data
- Produces a report that lists invalid transactions and sends an action message for each invalid transaction to the Employee Work Center
- Marks in the interface tables those transactions that are successfully updated to the application tables

If the report indicates errors, access the Work Center program by choosing Employee Work Center from the Workflow Management menu (G02) and review the messages in the message center. Then, use the associated inquiry function to review and revise the transactions, and rerun the transaction process.

Before you run any of the inbound transaction programs, specify the appropriate values for processing in the processing options.

See Also

- Reviewing and Revising Inbound Transactions* for more information about using the Inquiry function

Processing Options for Inbound Hours and Quantity Processor (R31122Z1I)

Versions

1. Enter the version for P311221 Hours and Quantities to be called. If left blank ZJDE0001 will be used
 - Printing
 1. Enter '1' to print unsuccessfully processed records only. If left blank, all records will be printed.
-

Processing Options for Inbound Inventory Issues Processor (R31113Z1I)

Versions

1. Enter the Version of Work Order Inventory Issues (P31113) to be called. If left blank "ZJDE0001" will be used.
-

Processing Options for Inbound Completion Processor (R31114Z1I)

Versions

1. Enter the version of Inventory Completions (P31114). If left blank ZJDE0001 wil be used.

Process

1. Enter '1' to print only the records with errors
-

Processing Options for Inbound Super Backflush Processor (R31123Z1I)

Data Edits

Enter the Version of Work Order Super Backflush (P31123). If left blank ZJDE0001 will be used.

Printing

1. Enter '1' to print unsuccessfully processed records only. If left blank, all records will be printed.
-

Reviewing and Revising Inbound Transactions

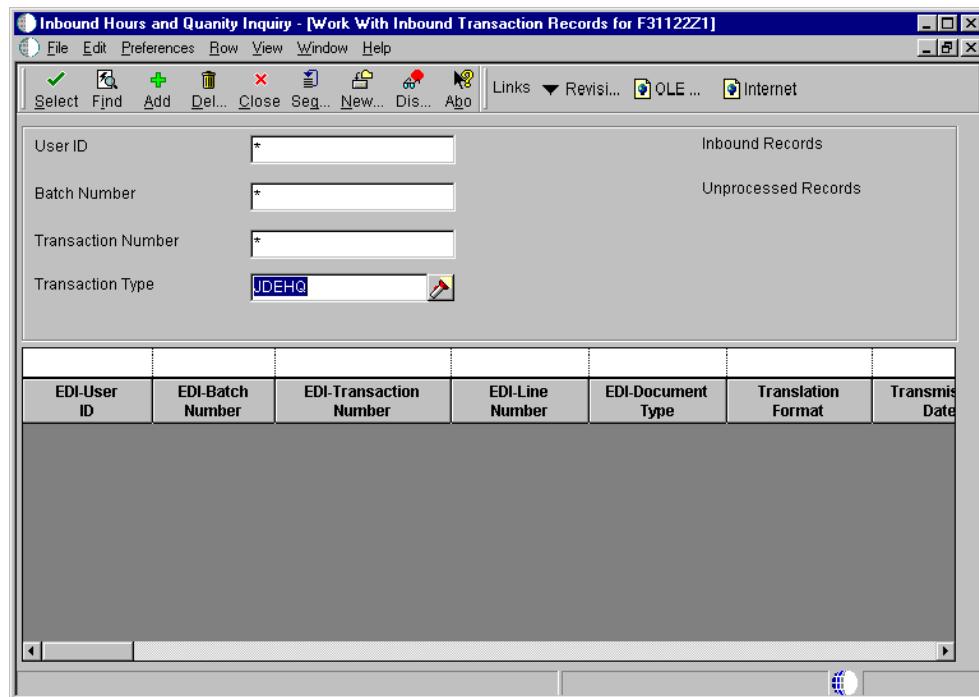
Running one of the transaction processes, such as the Inbound Work Order Inquiry, often identifies one or more inbound transactions that contain invalid transactions. For example, a work order might have an invalid item number. In that case, the program cannot add that work order to the Work Order Master table (F4801). Instead, the program sends an error message to the Employee Work Center, indicating the transaction number for the transaction in error.

Use the inquiry menu selections to review and revise inbound transactions. Use the inquiry menu selections to add, change, or delete transactions that contain errors. Then run the transaction process again. Continue to make corrections and rerun the transaction process until the program runs without errors.

The steps that follow are only an example of typical processes that you might perform to review or revise inbound transactions.

► To review and revise inbound transactions

From the Shop Floor Management Interoperability menu (G31311), choose Inbound Hours and Quantity Inquiry.



1. On Work With Inbound Transaction Records for F31122Z1, complete the following fields and click Find:
 - User ID
 - Batch Number
 - Transaction Number
2. Choose the transaction to review and revise the record and click Select.
3. On Transaction Record Revisions for F31122Z1, review and revise as needed, and then click OK.
4. After you correct the errors identified by the Inbound Work Order Processor, run the transaction process again.

See *Receiving Transactions from External Systems*.

5. If the system identifies other errors, follow step 1 - 4 until no more transaction errors appear.

See Also

- About EDI Document Inquiry and Revision* in the *Data Interface for Electronic Data Interchange* documentation for information about reviewing and revising inbound product activity data transactions
- Working with Messages* in the *OneWorld Foundation* documentation for more information about the Employee Work Center

Processing Options for Inbound Work Order Inquiry (P4801Z1)

Display

1. Default View Mode. If left blank, default is '1'.
'1' - View Unprocessed Records
'2' - View Records Processed Successfully
'3' - View Records Processed Unsuccessfully
2. Enter the Direction Indicator value. ('1' for Inbound Records, '2' for Outbound Records). If left blank '2' will be used.
3. Enter the value for the screen to be displayed. ('1' for Work Order Revisions, '2' for Completion Revisions). If left blank, '1' will be used.

Defaults

1. Enter the Transaction Type for new Work Order Header Transactions. If left blank, "JDEWO" will be used.
2. Enter the Transaction Type for new Work Order Parts List Transactions. If left blank, "JDEPL" will be used
3. Enter the Transaction Type for new Work Order Routings Transactions. If left blank, "JDERTG" will be used

Process 1

1. Name of Inbound Subsystem UBE to process Inbound transactions.
If left blank, default is 'R31114Z11'.
 2. Version of Inbound UBE. Default is 'XJDE0002'.
-

Processing Options for Inbound Hours and Quantity Inquiry (P31122Z1)

Display

1. Default View Mode. If left blank, default is '1'.
'1' - View Unprocessed Records. '2' - View Records Processed Successfully. '3' - View Records Processed Unsuccessfully
2. Enter the Direction Indicator value. ('1' for Inbound Records, '2' for Outbound Records). If left blank, '1' will be used.

Defaults

1. Enter the Transaction Type for new Work Order Header Transactions. If left blank, "JDEHQ" will be used.

Process

1. Name of Inbound Subsystem UBE to call to process Inbound transactions.
If left blank, default is 'R31122Z11'
 2. Version of Inbound UBE to call. Default is 'XJDE0002'.
-

Processing Options for Inbound Inventory Issues Inquiry (P3111Z1)

Display

1. Default View Mode. If left blank, default is '1'.

|<1| View Unprocessed Records |>1| View Records Processed Successfully |>3| View Records

Processed Unsuccessfully

2. Enter the Direction Indicator value. ('1' for Inbound Records, '2' for Outbound Records). If left blank, '1' will be used.

Defaults

1. Enter the Transaction Type for new Work Order Header Transactions. If left blank, "JDEII" will be used.

Process

1. Name of Inbound Subsystem UBE to call to process Inbound transactions. If left blank, default is 'R31113Z1'.

2. Version of Inbound UBE to call. Default is 'XJDE0002'.

Processing Options for Inbound Super Backflush Inquiry (P3112Z1)

Display

1. Default View Mode. If left blank, default is '1'.

'1' - View Unprocessed Record. '2' - View Records Processed Successfully. '3' - View Records

Processed Unsuccessfully.

Enter the Direction Indicator value. ('1' for Inbound Records, '2' for Outbound Records). If left blank '1' will be used.

Defaults

1. Enter the Transaction Type for new Work Order Header Transactions. If left blank, "JDESBF" will be used.

Process

1. Name of Inbound Subsystem UBE to call to process Inbound transactions. If left blank, default is 'R31123Z1'.

2. Version of Inbound UBE to call. Default is 'ZJDE0001'.

Sending Transactions to External Systems

You might need to send to another system transactions that you create or change in the Shop Floor Management system. For example, if your organization uses hand-held scanning devices, you can use interoperability transactions to update the database used by the scanning devices.

The default outbound transaction is a copy of a data transaction after you created or changed it (an *after image*). With interoperability, you can also send a copy of each transaction as it was before you changed it (a *before image*). Creating and sending before images requires additional processing time. To control the type of image, you set a processing option in the application programs that create transactions.

You can send transactions to an external system from the following programs in the Shop Floor Management system:

- Enter/Change Order
- Enter/Change Rate Schedule
- Order Processing Cross Reference
- Inventory Issues
- Hours and Quantities Update
- Completions Workbench

To create outbound transactions, specify the appropriate transaction type in the related processing option. The system places a copy of the transaction in the interface table for that type of transaction. For example, when you run Enter/Change Order with the interoperability

processing option turned on, the system places a copy of updated work order data in the F4801Z1 interface table. The data is then available for an external system to use.

The system creates the outbound transaction in EDI format. External systems can process the transactions using standard EDI processing, including extraction.

Before You Begin

- Define the data export controls for the type of outbound transaction. The system uses data export controls to determine the batch programs or business processes that third parties supply for use in processing transactions.

See Also

- Enter Work Order Headers* for information about entering an order
- Entering Rate Schedules* for information about entering a rate schedule
- Processing Work Orders and Rate Schedules* for information about order processing
- Issuing Material* for information about inventory issues
- Updating Hours and Quantities* for information about processing hours and quantities
- Working with Completions* for information about completing a work order or rate schedule

Appendices

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 and allow for the extra time (leadtime) in your planning.

Cumulative leadtime is the total amount of time that is required to produce a product. The Shop Floor Management system uses the requested date of the order and, based on the methods used to define the level leadtime (leadtime per unit) for the product, calculates the appropriate order start date.

Many factors can influence your company's leadtime policy, including the following:

- Manufacturing environment (assemble-to-order, make-to-order)
- Fixed or variable quantities
- Serial or overlap operations
- Fixed or variable leadtime
- Number of shifts and operators
- Factoring by efficiency
- Protection

Whether your company uses fixed or variable leadtime depends on whether you have consistent work order quantities for a manufactured item. If your work order quantities vary significantly, you should use variable leadtime. A significant variation would be any amount that requires more or less leadtime. Items with short leadtimes could have larger fluctuations than items with long leadtimes. You specify whether to use fixed or variable leadtime on the Manufacturing Data tab on the Additional System Information form.

For any manufactured product, the system calculates four types of leadtime as follows:

Level leadtime	Level leadtime is the number of work days required to complete the product after all items are available. See <i>Level Leadtime</i> for more information and the associated calculation.
Manufacturing leadtime	Manufacturing leadtime is the total number of workdays required to complete a product, from its lowest-level components to the final item, assuming that all purchased items are in house. See <i>Manufacturing Leadtime</i> for more information and the associated calculation.
Cumulative leadtime	Cumulative leadtime is the number of workdays required to acquire items and complete a product, from its lowest-level components to the final item. In other words, it is the level leadtime for a product, plus the longest cumulative leadtime of any of its components. See <i>Cumulative Leadtime</i> for more information and the associated calculation.
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. See <i>Per Unit Leadtime</i> for more information and the associated calculation.

The Shop Floor Management system uses the following factors in its calculation of leadtimes:

- Serial or overlap operations
- Fixed or variable leadtime indicator
- Routing labor, setup, queue, move, and machine run hours
- Prime load code for a work center
- Number of employees or machines per work center
- Hours per work day

To calculate leadtimes, the system does the following:

- Uses the information that you set up for each item in the Item Master program in the Inventory Management system
- Coordinates the information with routing instructions and work center information that you enter in the Product Data Management system
- Determines leadtimes for all parent and component items

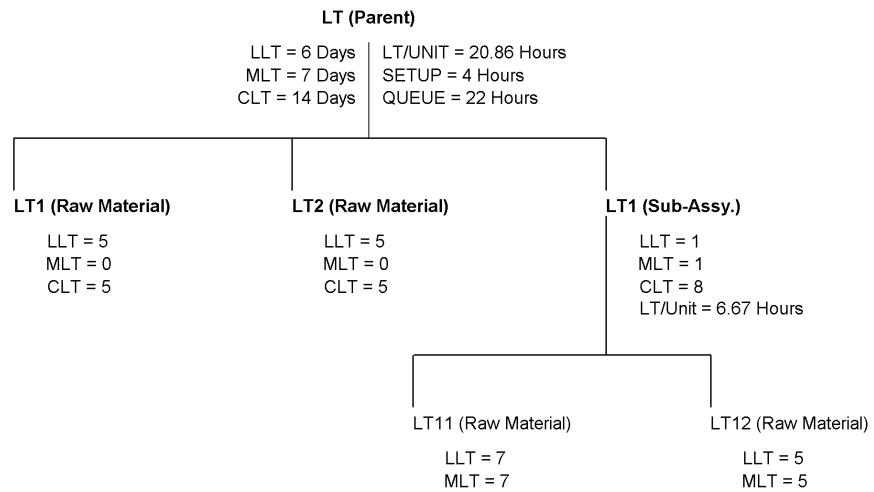
At any point in your planning and scheduling process, you can change leadtime values manually on the Manufacturing Data tab on the Additional System Information form in the Item Master program.

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.

Example: Leadtime Calculation Worksheet

The following graphic illustrates the different types of leadtimes that you can factor into different item levels, including raw material and the finished product:

Leadtime Calculation Worksheet



LLT = Level Leadtime

MLT = Manufactured Leadtime

CLT = Cumulative Leadtime

Leadtime Concepts

The following table explains important leadtime terms and concepts:

Machine hours	The number of machine hours required to produce the desired quantity.
Labor hours	The number of labor hours required to produce the desired quantity.
Setup hours	The number of hours required to prepare machinery to produce 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 operation.
Queue hours	The number of hours that a job waits at a work center before setup or work is performed on the job.
Total queue and move hours	The sum of the move hours and the queue hours.
Time basis code	A user defined code (30/TB) that indicates how machine or labor hours are expressed for a product. Time basis codes identify the time basis or rate used for the machine or labor hours that are entered for every step in the routing instructions--for example, 25 hours per 1,000 pieces. You maintain the time basis codes in Time Basis Codes.
Resource units	Shows the available 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 available hours calculate the operation start dates. You maintain the resource units in Work Center Resource Units.
Prime load code	Determines whether a work center is labor-intensive or machine-intensive. The prime load code also determines whether the system uses the number of employees or the number of machines to decide the daily resource units in the Resource Units table. You maintain the prime load codes in Work Center Revisions. For calculating leadtimes, the following values for a prime load code are valid: <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	A part purchased from a supplier. For any purchased part, you specify the level leadtime, which is equal to the cumulative leadtime. By default, the manufacturing leadtime, leadtime per unit, total queue and move hours, and setup times for purchased parts are zero.
Cumulative	Shows the loss of material at an operation. The system knows when to add materials and

yield %	labor resources to complete a job.
Utilization	Factors machine usage percent.
Efficiency	Factors labor portion. Efficiency adds time to the standard routing and leadtime when efficiency is less than 100%. That is, 95% labor is 95% efficient.

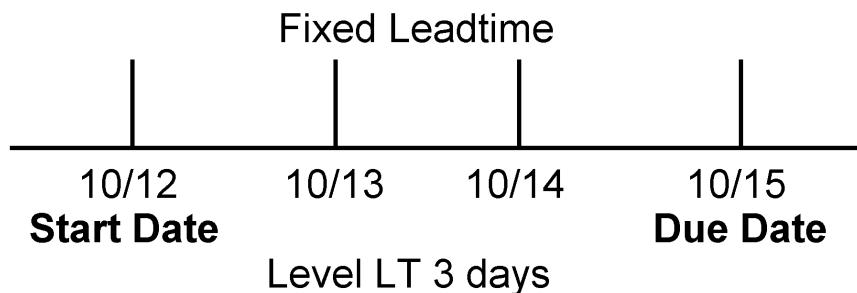
Work Order Start Dates

The system uses the level leadtime or leadtime per unit for an item defined on the Manufacturing Data form to calculate the start date of a work order based on the order's due date.

Fixed Leadtime

When an item has a fixed leadtime, the system uses the item's level leadtime value in backscheduling to calculate the work order start date.

For example, the system generates a planned order for product 101 with a requested due date of 10/15/00. The level leadtime is 3 days for this product, so the system calculates the start date by counting back 3 working days on the shop floor calendar from (but not including) the requested date. The system assigns the order a start date of 10/12/00.



Variable Leadtime

When an item has a variable leadtime, the system uses the following calculation to determine the leadtime days:

$$\frac{(\text{Leadtime per unit} \times \text{order quantity} / \text{TBC}^*) + \text{setup} + \text{total queue/move}}{\text{Work hours per day}}$$

* The system reads the Time Basis Code (TBC) from the Item Branch table (F4102).

When an item has a variable leadtime, the system uses the following calculation to determine the leadtime days: $(\text{Leadtime per unit} \times \text{order quantity} / \text{TIMB (item balance)}) + \text{setup} + \text{queue}$

For example, to determine the start date, the system counts back the leadtime days from the due date of planned orders. The system backschedules the due date, 10/15, 2 days to determine the start date of 10/13.

$$\begin{aligned}(32 \times 1000 / 10,000) + 1 + 9) / 8 \\ (3.2 + 10) / 8 = 2 \text{ days}\end{aligned}$$

The following table shows the values that are 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

Note

Leadtime per unit does not use crew size in the calculation of leadtime for an item at a labor-based work center. However, leadtime per unit does use the number of employees in the work center when calculating leadtime.

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 setup 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 on the same day, the system decreases the resource units available by the percentage of the work day that

remains. The system does not use resource units on the due date of the work order. Instead, it assumes that 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 (F3007). The system schedules the due date of the last operation on the day before the work order due date.

Calculation

The system uses the following formula to calculate average time per operation:

$$\frac{\text{leadtime level days} \times \text{work hours per day}^* \times \text{employees or machine}}{\text{number of operation sequences (blank operation sequence codes only)}} = \text{average time per operation}$$

* Work hours per day are retrieved from the Job Shop Manufacturing Constants table (F3009).

The system uses the following formula to calculate average time per operation: (Leadtime level days x work hours per day (F3009) x employees or machine) / number of operation sequences (blank operation sequence codes only) = average time per operation

The following table shows the values that are used in this calculation:

Work order due date	05/01/98		
Average time per operation	25 hours		
Operations in the routing instructions	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 a variable leadtime, the system schedules the actual hours from the work order routing instructions, according to the same resource units rules for fixed leadtime.

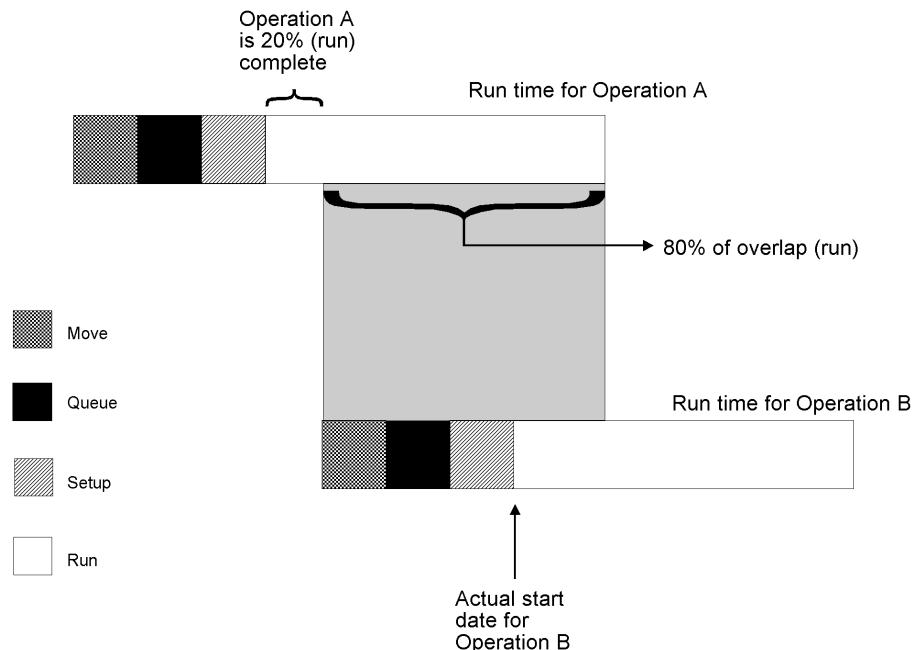
The system uses the prime load code to determine the hours to use. As with fixed leadtime, the hours are then applied to the Work Center Resource Units table (F3007). The system applies queue time from the work order routing instructions at the beginning of an operation and applies move time at the end of an operation.

The system also factors cumulative yield percent, utilization, and efficiency in the calculation.

Overlapping Operations

One method used to compress leadtimes is to overlap operations. Overlapping operations are two or more operations in a routing instruction that run at the same time. The percent of overlap is the amount of time that these operations can run concurrently. You can define at what point the 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 that you have 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 instructions, 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 instructions, the routing instruction for the work order 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. The following tables illustrate operations with and without overlapping percentages.

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 tables above, the system advances the complete date of the previous operation by 75% of 24 hours 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:

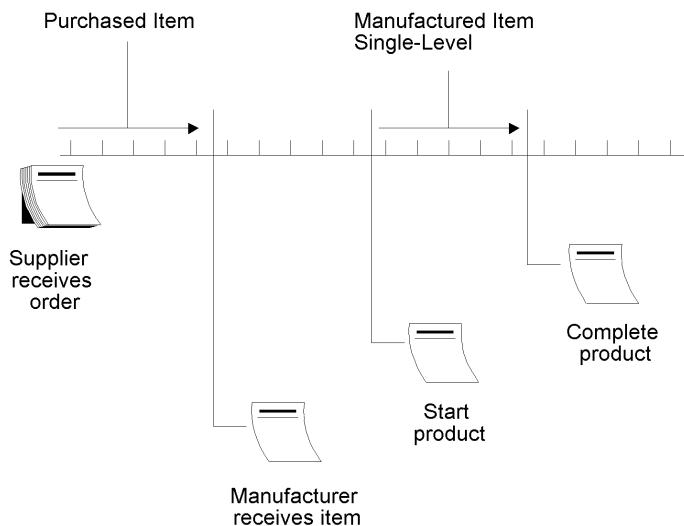
Date	4/27	4/28	4/29	4/30	5/1	5/2
Resource hours	8	8	8	8	8	8
OP 10 (24 hrs) (without overlap)	<----	-----	----->			
OP 20 (24 hrs) (without overlap)				<----	-----	----->
OP 10 (with overlap)	<----	-----	----->			
OP 20 (with overlap)	<-	-----	----->			

Leadtime Calculations

The calculation from the Leadtime Rollup program updates the following values in the Item Master program.

Level Leadtime

For a manufactured product, level leadtime is the number of workdays required to complete the product after all items are available. Level leadtime for a purchased item is the number of calendar days that are required for you to receive the item after the supplier receives your purchase order. The following graphic shows you where the level leadtimes for a manufactured item and a purchased item appear in the process:



Calculation

The system uses the following formula to calculate level leadtime:

$$R = \frac{(\{(M \text{ or } L) / (E \text{ or } M)\} \times MLQ)}{TBC^*} + \text{setup} + \text{total queue/move hours}$$

Work hours per day from Constants table

* The system reads the Time Basis Code from the Routing Master file (F3003).

The system uses the following formula to calculate level leadtime: $[(\{(M \text{ or } L) / (E \text{ or } M)\} \times MLQ) / \text{TIMB (Routing)}] + \text{setup} + \text{queue}] / \text{work hours per day from Constants table}$

The following table shows the values that are 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
TBC	Time basis code
MLQ	Manufacturing leadtime quantity
E	Number of employees in the work center
M	Number of machines in the work center

For example:

$$\frac{(8)/(1) \times 2,000}{10,000} + \frac{\{(12)/(1)\} \times 2,000}{10,000} + \frac{\{(12)/(1)\} \times 2,000}{10,000} = 1 + 9$$

8

$$(1.6 + 2.4 + 2.4 + 1 + 9) / 8 = 16.4 / 8 =$$

3 days level leadtime

Manufacturing Leadtime

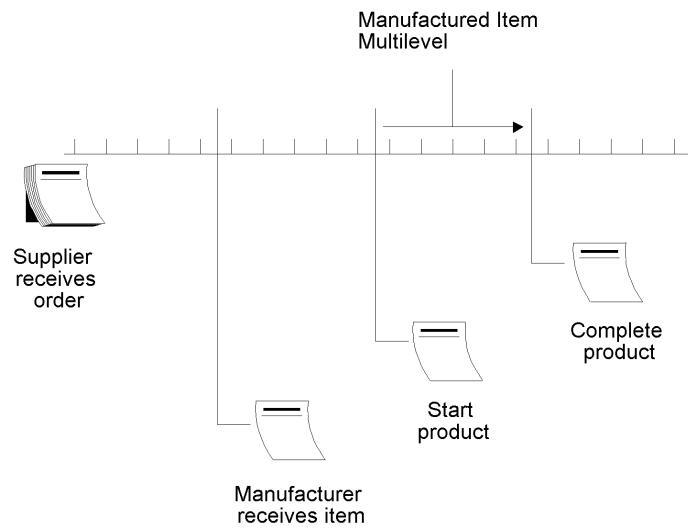
Manufacturing leadtime is the total number of workdays required to complete a product, from its lowest-level items to the final item, assuming that all purchased items are in house.

Manufacturing leadtime includes the following:

- Order preparation time
- Queue time
- Setup time
- Run time
- Move time
- Inspection time
- Putaway time

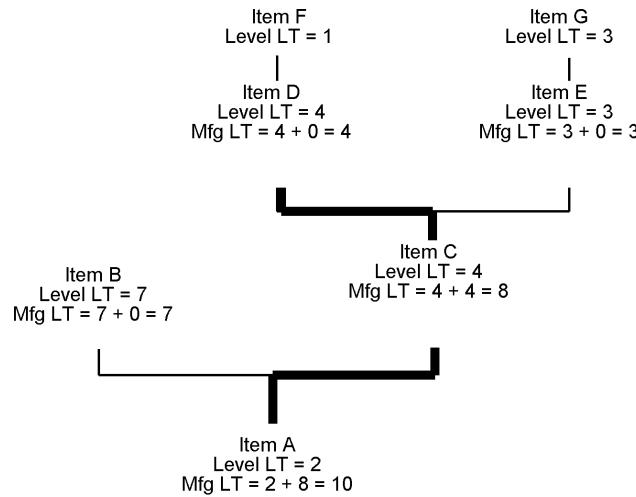
In addition, manufacturing leadtime is the total of the level leadtime for an item plus the longest manufacturing leadtime of any of its components.

Leadtimes for purchased items are not included in manufacturing leadtime calculations. The following graphic shows you where in the process is the manufacturing leadtime for a manufactured item appears:



Calculation

The following flow diagram depicts a calculation of manufacturing leadtime:



Bold line = Longest manufacturing leadtime of any of the product's items.

Items A, B, C, D, and E are manufactured items.

Items F and G are purchased items.

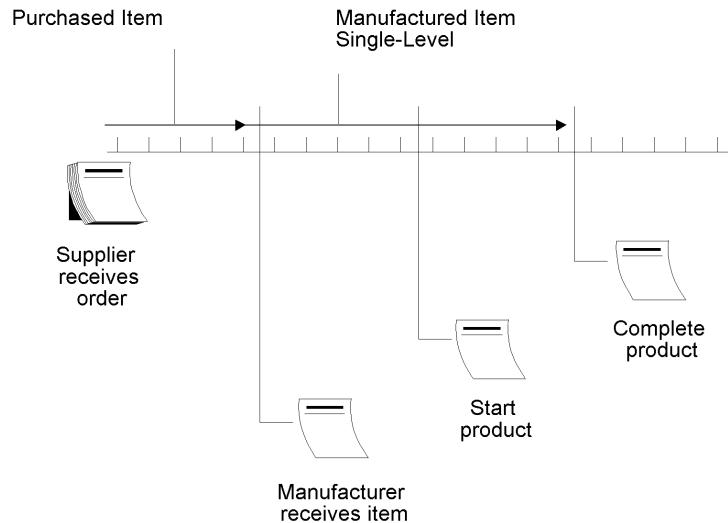
Cumulative Leadtime

Cumulative leadtime is the number of workdays that are required to acquire items and complete a product, from its lowest-level components to the final item. In this calculation the

level leadtime for a product and the longest cumulative leadtime of any of its components are added.

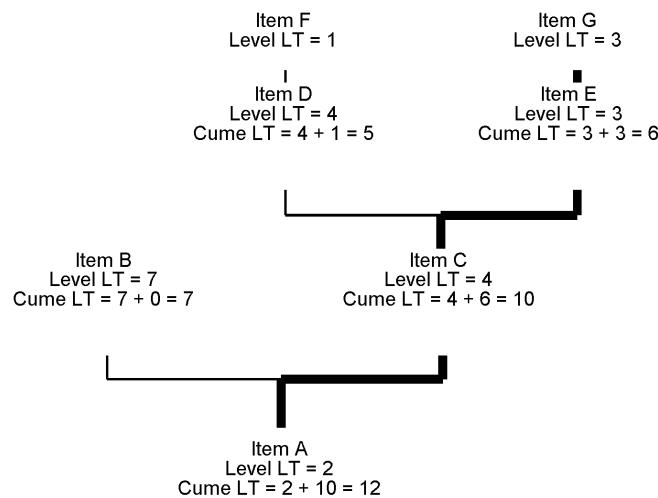
Unlike manufacturing leadtime, cumulative leadtime includes the leadtimes for purchased items. It includes both the time to acquire purchased items and the time to complete the product.

The cumulative leadtime for a purchased item is its level leadtime. The following graphic shows you where the cumulative leadtimes for a manufactured item and a purchased item appear in the process:



Calculation

The following flow diagram depicts a calculation of cumulative leadtime:



Bold line = Longest manufacturing leadtime of any of the product's items.
 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 determines valid start dates for orders planned in situations other than the 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:

$$R = \frac{((M \text{ or } L) / (E \text{ or } M)) \times TBC \text{ 1}}{TBC \text{ 2}}$$

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

1 The system reads the Time Basis Code from the Item Branch table (F4102).

2 The system reads the Time Basis Code from the Routing Master table (F3003).

Note:

The above example does not include the following variables:

- Cumulative yield
 - Percentage of overlap
 - Batch quantity conversion
 - Work center efficiency and utilization
-

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
TBC	Time basis code
E	Number of employees in the work center
M	Number of machines in work center

Setup Hours

Setup hours indicate the time that is required to prepare the machinery to run a specific item. To calculate the setup hours, divide the setup by the number of employees or machines for each routing, and then add the values together. This method ensures consistency during the backscheduling routing because the resource units for the work center are created based on those numbers.

In the following example, the setup hours equal six:

$$\frac{\text{Setup}}{\text{Employees or machines}} = \frac{1}{OP\ 30} + \frac{2}{OP\ 60} + \frac{6}{OP\ 80} = 6 \text{ setup hours}$$

Total Queue and Move Hours

Queue hours indicate the time that a manufacturing work order is idle at a work center before setup or work begins. Move hours indicate the time that a manufacturing work order is moving from the completion of one operation to the start of the next operation. To calculate the total queue and move hours, add the move hours per routing and the queue hours per routing.

In the following example, 9 is the total for the queue and move hours:

$$\begin{array}{r} \text{OP 30} \\ (1 + 2) \end{array} \quad \begin{array}{r} \text{OP 60} \\ (2 + 4) \end{array} \quad \begin{array}{r} \text{OP 80} \\ (0 + 0) \end{array} = 9$$