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Shop Floor Management Overview

A shop floor management system 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.

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 uses 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. 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.

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.

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

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.

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.

Industry Improvements

Shop floor tracking includes monitoring machine status, absent employees, operations not finished on time, and parts rejected, all of which significantly impact 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 unproductive 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, and it provides manufacturing lead-time that ensures on-time deliveries.

Competitive Advantage Through Shop Floor Management

The following table provides examples of typical problems in the manufacturing industry and possible solutions to these problems:

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 and routings for each facility for the same item. The system displays material, bills of material, and routings for all defined business units. Accurate planning consists of current work in process (WIP), inventory, bills of material, 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 lead times.

A company might forget to account for actual inventory.

Through inventory management in the manufacturing industry, you can accurately and consistently make plans for the entire organization.

WIP does not always use up-to-date information.

The Shop Floor Management system includes planning features that consider WIP, inventory levels, bills of material and routings.

A company needs to know if it operates at a profit or a loss.

You can use product costing and various accounting functions to review costing and accounting at each level in an organization.

Costs are compiled in a single ledger record regardless of where the system generates the cost record.

The software provides the ability to sort and report cost information 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 shows all elements that influence the cost of an item.

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 lead time.

You can use the Leadtime Rollup (R30822A) program to view the lead times for each item in each branch. You can identify potential production and delivery problems.

When your company produces manufactured items at a rate that is defined in the routing, planners can determine whether the shop floor is on schedule. If it is not on schedule, 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.

You can use the Shop Floor Workbench program (P31225) to review 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 unit of measure, which 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.

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

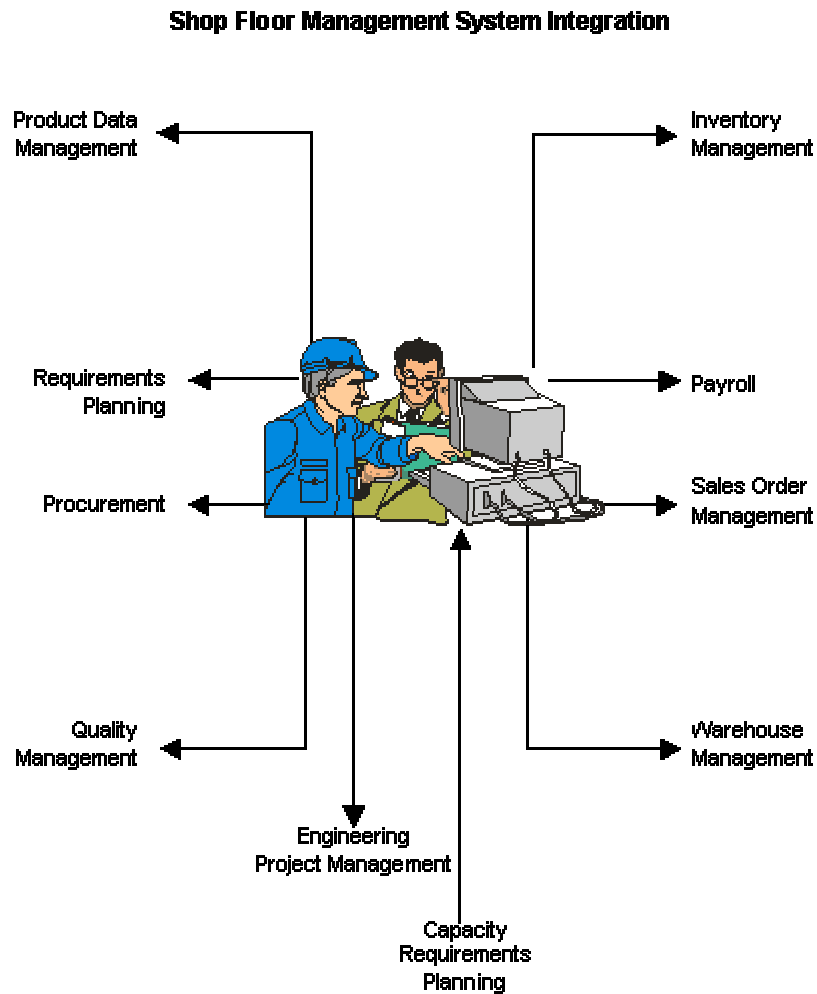
Today, companies have more choices about how to run their businesses and the systems that they use to support their business processes.

Shop Floor System Integration

Shop Floor Management is one of many systems that are used for Supply Chain Management. Supply Chain Management enables you to coordinate your inventory, raw material, and labor resources to deliver products according to a managed schedule. The systems within Supply Chain Management are fully-integrated, which ensures that information is current and accurate throughout all of your business operations. It is a manufacturing system that formalizes the activities of company and operations planning, as well as the execution of those plans.

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

These system integrations are described following this graphic:



The Product Data Management system provides information about bills of material, work centers, routing instructions, and product costs.

The Distribution Requirements Planning, Master Production Schedule, and Material Requirements Planning systems provide suggested purchasing 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 Engineering Project Management system allows you to work with large engineer-to-order projects. You use a number of Shop Floor Management programs, for example Order Processing (R31410), Inventory Issues (P31113), Work Order Completions (P31114) and others, to process the work orders that you create for the project.

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.

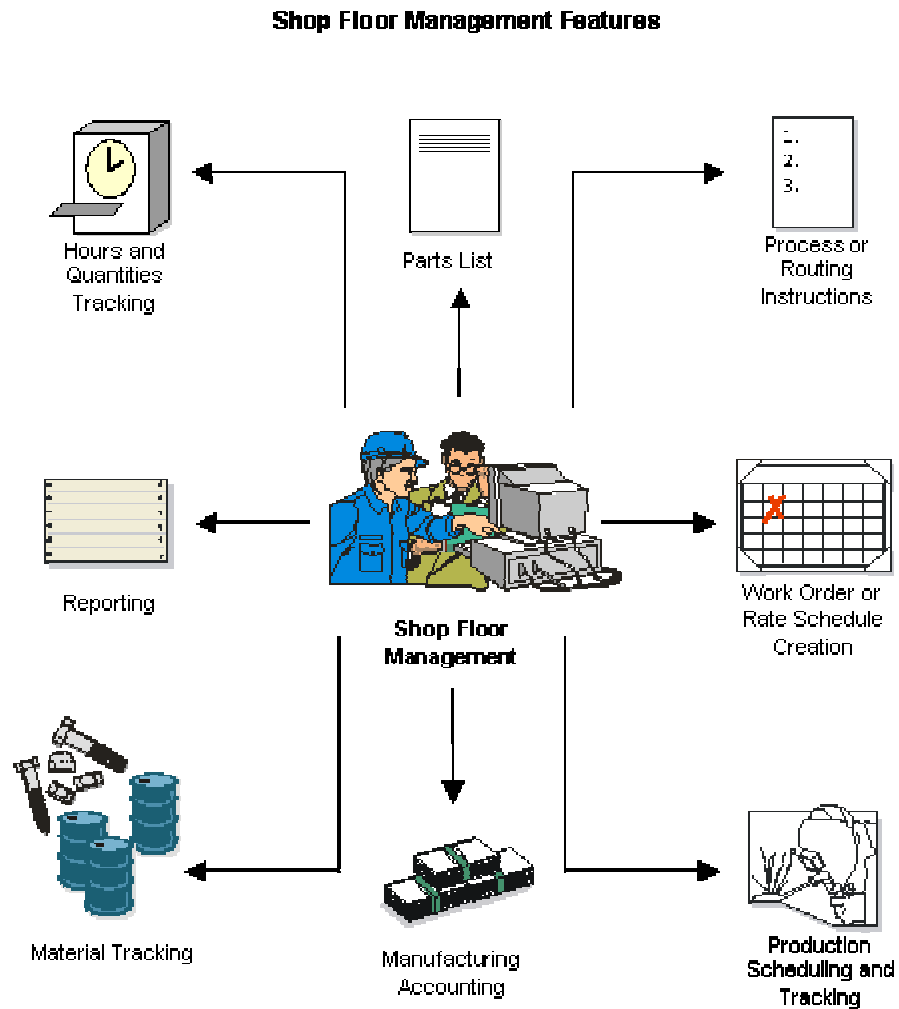
The Sales Order Management system allows you to generate work orders when you enter a sales order, and it updates sales information from within the Shop Floor Management system.

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.

Shop Floor Management 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 information 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 run the Order Processing program (R31410).
- Attach the parts list and routing instructions to the work order and print shop floor paperwork.
- 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.
- Track where lots are used, and split and trace where lots originate with advanced lot control.
- Maintain and monitor work orders created from the Base 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 task occurs after the system creates a parts list without a work center attached, and checks availability. You must have Warehouse Management installed to take this step.

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 to 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 coproduct 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 with 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 or MPS

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 the Master Production Schedule or Material Requirements Planning systems by answering action messages, or from the Sales Order Entry system, in which you can select kits for assemble-to-order products.
- Automatically generate shop floor paperwork for rate schedules, 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, you can create 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. The system generates these purchase orders when you run the Order Processing program (R31410).

Process or Routing Instructions

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

- Generate routing instructions automatically when you run the Order Processing program (R31410)
- 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
- Review quantity ordered, completed, and scrapped for each operation in the Production Status program (P31226) or the Production History program (P31227)

Parts List

You use the parts list features to do the following:

- Generate a parts list automatically when you run the Order Processing program (R31410)
- 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 defined substitute items and their quantities on-hand when a component shortage exists

Shop Floor Management 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)	Stores branch, plant, warehouse, and business unit information, such as company, description, and category codes that are assigned to that entity.
Generic Message/Rates (F00191)	Stores codes that correspond to a text message and the employee labor rate. In the Shop Floor Management system, these codes are used for the routing instructions text on a work order.
Account Master (F0901)	Stores account definitions including numbers and descriptions.
Account Ledger (F0911)	Stores detailed transactions in the general ledger.
Work Center Master File (F30006)	Stores detailed information, such as efficiency, about all defined work centers.
Bill of Material Master File (F3002)	Stores information at the business unit 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)	Stores frozen standard costs for the creation of journal entries that are related to work orders.
Routing Master File (F3003)	Stores information about routing instructions, including operation sequences; work centers; and run, setup, and machine time. The system uses this information to calculate labor, machine, and overhead costs.
Work Center Resource Units (F3007)	Stores the capacity information for work centers, such as business unit, month, shift, and efficiency.
Job Shop Manufacturing Constants (F3009)	Stores general branch/plant information, such as bill of material and routing instructions validation, commitment control, work hours per day, and costs.
Kanban Master (F3016)	Stores 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)	Stores information related to the kanban, such as status, transaction quantity, and date updated.
Production Cost (F3102)	Stores the work order variance. Variance is the difference between actual costs and the standard costs that were defined at the beginning of the accounting period.

Work Order LSN (F3105)	Stores the data that identifies work order assemblies with lot serial numbers.
Summarized WO Cross-Reference (F3108)	Stores the cross-reference information for work orders, such as batch number and date, user, program ID, and workstation.
Line/Item Relationship Master (F3109)	Stores the relationships between items and production lines. The system uses one of the records as the default rate generation rule.
Schedule Quantity Detail (F31091)	Stores 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)	Stores the components required by a work order.
Work Order Routing (F3112)	Stores the routing steps that are attached to a work order or rate schedule. It contains one record for each operation sequence number and work center.
Work Order Time Transactions (F31122)	Stores the labor transactions reported on work orders and rate schedules.
Shortage Maintenance Master File (F3118)	Stores component shortages for work orders.
Distribution/Manufacturing – AAI Values (F4095)	Stores the automatic accounting instructions for the Manufacturing systems.
Assembly Inclusion Rules (F3293)	Stores the inclusion parameters for item numbers and business units.
MPS/MRP/DRP Message File (F3411)	Stores the supply and demand relationship among the branches.
Forecast File (F3460)	Stores the forecast data that Resource Requirements Planning (RRP) validates. The data is then used as input to MPS/MRP/DRP.
Inventory Constants (F41001)	Stores 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)	Stores basic information about each defined inventory item, such as item number, description, category codes and units of measure.
Item Branch File (F4102)	Stores the warehouse or plant-level information for an item, such as costs, quantities, category codes, and physical locations.
Item Location File (F41021)	Stores all inventory locations for an item.
Item Cross Reference File (F4104)	Stores information that enables you to relate item numbers for a specific purpose.
Lot Master (F4108)	Stores the potency of a lot.

Item Ledger File (F4111)	Stores transaction history for all items.
Item History (F4115)	Stores usage data for items that are optional in some transaction programs in the Shop Floor Management system.
Warehouse Requests (F4600)	Stores putaway, picking, and replenishment requests.
Location Detail Information (F4602)	Stores the information for locations, such as item, business unit, and lot.
Warehouse Suggestions (F4611)	Stores putaway, pick, and replenishment suggestions for inventory movement
Work Order Master File (F4801)	Stores the work order and rate schedule information, such as item numbers, quantities, dates, lots, locations, and shift codes.
Work Order Instructions File (F4802)	Stores 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 nuts, bolts, wire, plastic, or metal parts 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 setting up and running the operations.

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 fact, 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. Throughout the Shop Floor Management system, the system uses the values in the following three fields in the Item Master table (F4101) as default values in entry forms:

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

The value in the Primary Unit of Measure field must be the smallest of the three units of measure.

See Also

- *Defining Default Units of Measure for Bulk Items* in the *Bulk Stock Management Guide*, if your company uses or manufactures bulk product

Discrete Manufacturing

Discrete manufacturing is typically 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.
- Components can be 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 typically characterized by the following:

- Work orders produce multiple items, both coproducts 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 can be 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 that is 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 coproducts 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. Coproducts and by-products are generally more prevalent in continuous processing than in batch processing.

Strategies that are similar to discrete manufacturing, including repetitive or any of the to-orders strategies (such as, make-to-order, assemble-to-order, or engineer-to-order) might be used to control the process. Usually, both batch and continuous processing methods require extensive record-keeping. You must track quality and tolerance values during the process, as well as strictly adhere to *lot tracing* and *lot tracking*. You use lot tracing to display the items that are assigned to a lot. You use lot tracking to display the items that are removed from a lot.

Repetitive Manufacturing

Repetitive manufacturing is typically characterized by the following:

- Entire production lines are dedicated to a family of products.
- Product families share similar components and routing instructions.
- Products are often manufactured in a continuous process that requires less inventory movement to and from the production line.
- Work center setup and changeover times between related products are minimized.
- Production is defined in units per hour. The time spent at the operational level might or might not be important. Therefore, you must be able to set up line capacity and define routing instructions in units per hour at the line level. 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.

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 (UDC 00/FP).

Shop Floor System Setup

Shop Floor Management requires some setup before you can use 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 shop floor calendars, work centers, and so on.

You must also 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

- ❑ Set up records in the following tables in the Inventory Management system:
 - Item Master (F4101)
 - Item Branch File (F4102)

See *System Setup* and *Lot Processing* in the *Inventory Management Guide* for information about setting up the item master, item branch, and lot master records
- ❑ Verify that all of the items that you want to control 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 Guide* for information about defining Kanban-controlled items.

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 program (P0004A). If you enter an operation status code on another form that you did not identify as an operation status code in the User Defined Codes program, the system displays an error message. For example, in the operation status code field, you can enter only those codes that exist in the user defined code table 31/OS.

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

The following table lists user defined codes for work orders:

Work Order/ECO Type (00/TY)	Work order/ECO type codes 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 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 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 for which the status indicates that they are pending approval or quality inspection, and release work orders that have status codes indicating that they have been approved or have passed quality inspection. You can also set up the system to automatically update the work order status code when you enter issue and completion transactions.
Phase and Matter Codes (00/W1)	Phase and matter codes indicate the implementation phase of the work order. You can use phase and 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 the availability of the product for the next level of inspection.
Work Order Category Codes (00/W2 and 00/W3)	Work order category codes can represent any category or description by which you want to group work orders for project management, cost accounting, or reviews. For example, you can set up one category code to represent types of problems that you might encounter during the work order implementation, such as improper startup or inadequate maintenance, and another code to represent locations in which the work is taking place.
Operation Status (31/OS)	Work order operation status codes indicate the progress or status of an order during the steps that you follow in a particular operation. For example, you can set up codes to indicate whether 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 (00/DT)

Document type codes categorize information throughout your J.D. Edwards systems. You can specify up to 12 document types to use for work orders and rates in supply and demand calculations by entering them in the processing options for the Supply/Demand Inclusion Rules program (P34004) in the Manufacturing Planning system. The Manufacturing Accounting system uses the document type to match your orders to the document types that are defined in your automatic accounting instructions (AAIs) when you post journal entries to the general ledger. You can use the document type codes 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).

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

Order Type (48/OT)

Order type codes allow you to distinguish each work order record in the Work Order Master File table (F4801) from other records with different work order types. For example, you do not use the same document type and work order type to represent both an equipment work order and a manufacturing work order. The relationship between the document type and its related order type is defined in the Document Type Maintenance program (P40040).

Unit of Measure (00/UM)

Unit of measure codes must be assigned to each item that you purchase, issue, manufacture, or sell. 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 are units of measure for items with potency. The potent units always have a comparable code in UDC 00/UM. 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 units, 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).

Defining Document Type Constants for Work Orders

Document types are used in the J.D. Edwards software to specify particular types of transactions. You define the characteristics of document types in the Document Type Maintenance program (P40040). The document type constants defined in this program affect all software transactions. The order type for each of the document types must be defined so that the system knows how to process the activity for it. For example, the document type for a manufacturing work order can be set to WO for the correct transactions that relate to the processing of a manufacturing work order.

To differentiate the various work order document types from each other, you assign a specific order type to each work order document type. For example, a manufacturing work order is associated with order type 02.

The following order type values for work order processing are stored in the UDC table 48/OT (Order Type) and are hard-coded:

Document Type	Order Type
Manufacturing Work Order	02
Manufacturing Rework Work Order	03
Equipment Work Order	04
Service Order	05
Warranty Claim Order	06

Supplier Recovery Order	07
Engineering Change Order	08
Engineering Change Request Order	09
Real Estate Management	10
EPM Summary Order	11
Rate Schedule	12

See Also

- *Setting up Document Type Information in the Inventory Management Guide*

Converting Existing Document Types

From the Upgrade Conversions menu (GH9619A), choose Convert F40039 to ERP 9.0.

In J.D. Edwards ERP 9.0 software, each type of work order is designated by a specific work order type (A201). If you have existing records in the Document Type Master records (F40039), these records now require a specific value in the Work Order Type field (A201). You run the Convert F40039 to ERP 9.0 program (R31P40039) only once to enter the desired values into this field. You determine the values entered in the processing options. Depending on which systems you use, you complete the fields on the appropriate tabs. For example, you complete the fields on the Manufacturing tab for manufacturing work orders. You can run this program in either proof mode or final mode.

Processing Options for Document Type Master (F40039) Conversion (R31P0039)

Process Tab

This processing option controls whether you run the conversion program in proof or in final mode.

1. Mode

Blank = Proof

1 = Final

Use this processing option to specify whether the system runs the report in proof or final mode. Valid values are:

1

Proof (default)

2

Final

Manufacturing Tab

These processing options specify which order type is assigned to manufacturing orders during conversion.

1. Order Type value 01 for Manufacturing Orders

Use this processing option to specify the order type for manufacturing work orders.

2. Order Type value 02 for Manufacturing Orders

Use this processing option to specify the order type for manufacturing work orders.

3. Order Type value 03 for Manufacturing Orders

Use this processing option to specify the order type for manufacturing work orders.

4. Order Type value 04 for Manufacturing Orders

Use this processing option to specify the order type for manufacturing work orders.

5. Order Type value 05 for Manufacturing Orders

Use this processing option to specify the order type for manufacturing work orders.

Manufacturing Rework Tab

These processing options specify which order type is assigned to manufacturing rework orders during conversion.

1. Order Type value 01 for Engineering Change Request Orders

Use this processing option to specify the order type for manufacturing rework work orders.

2. Order Type value 02 for Engineering Change Request Orders

Use this processing option to specify the order type for manufacturing rework work orders.

3. Order Type value 03 for Engineering Change Request Orders

Use this processing option to specify the order type for manufacturing rework work orders.

4. Order Type value 04 for Engineering Change Request Orders

Use this processing option to specify the order type for manufacturing rework work orders.

5. Order Type value 05 for Engineering Change Request Orders

Use this processing option to specify the order type for manufacturing rework work orders.

Equipment Tab

These processing options specify which order type is assigned to equipment orders during conversion.

1. Order Type value 01 for Equipment Orders

Use this processing option to specify the order type for service work orders.

2. Order Type value 02 for Equipment Orders

Use this processing option to specify the order type for service work orders.

3. Order Type value 03 for Equipment Orders

Use this processing option to specify the order type for service work orders.

4. Order Type value 04 for Equipment Orders

Use this processing option to specify the order type for service work orders.

5. Order Type value 05 for Equipment Orders

Use this processing option to specify the order type for service work orders.

S/WM Tab

These processing options specify which order type is assigned to service during conversion.

1. Order Type value 01 for Service Orders

Use this processing option to specify the order type for service work orders.

2. Order Type value 02 for Service Orders

Use this processing option to specify the order type for service work orders.

3. Order Type value 03 for Service Orders

Use this processing option to specify the order type for service work orders.

4. Order Type value 04 for Service Orders

Use this processing option to specify the order type for service work orders.

5. Order Type value 05 for Service Orders

Use this processing option to specify the order type for service work orders.

Warranty Claim Tab

These processing options specify which order type is assigned to warranty claim orders during conversion.

1. Order Type value 01 for Warranty Claim Orders

Use this processing option to specify the order type for warranty claim orders.

2. Order Type value 02 for Warranty Claim Orders

Use this processing option to specify the order type for warranty claim orders.

3. Order Type value 03 for Warranty Claim Orders

Use this processing option to specify the order type for warranty claim orders.

4. Order Type value 04 for Warranty Claim Orders

Use this processing option to specify the order type for warranty claim orders.

5. Order Type value 05 for Warranty Claim Orders

Use this processing option to specify the order type for warranty claim orders.

Supplier Recovery Tab

These processing options specify which order type is assigned to supplier recovery orders during conversion.

1. Order Type value 01 for Supplier Recovery Orders

Use this processing option to specify the order type for supplier recovery orders.

2. Order Type value 02 for Supplier Recovery Orders

3. Order Type value 03 for Supplier Recovery Orders

Use this processing option to specify the order type for supplier recovery orders.

4. Order Type value 04 for Supplier Recovery Orders

Use this processing option to specify the order type for supplier recovery orders.

5. Order Type value 05 for Supplier Recovery orders

Use this processing option to specify the order type for supplier recovery orders.

ECO Tab

These processing options specify which order type is assigned to engineering change orders during conversion.

1. Order Type value 01 for Engineering Change Orders

Use this processing option to specify the order type for engineering change orders.

2. Order Type value 02 for Engineering Change Orders

Use this processing option to specify the order type for engineering change orders.

3. Order Type value 03 for Engineering Change Orders

Use this processing option to specify the order type for engineering change orders.

4. Order Type value 04 for Engineering Change Orders

Use this processing option to specify the order type for engineering change orders.

5. Order Type value 05 for Engineering Change Orders

Use this processing option to specify the order type for engineering change orders.

ECO Recovery Tab

These processing options specify which order type is assigned to engineering change request orders during conversion.

1. Order Type value 01 for Engineering Change Request Orders

Use this processing option to specify the order type for engineering change request orders.

2. Order Type value 02 for Engineering Change Request Orders

Use this processing option to specify the order type for engineering change request orders.

3. Order Type value 03 for Engineering Change Request Orders

Use this processing option to specify the order type for engineering change request orders.

4. Order Type value 04 for Engineering Change Request Orders

Use this processing option to specify the order type for engineering change request orders.

5. Order Type value 05 for Engineering Change Request Orders

Use this processing option to specify the order type for engineering change request orders.

Real Estate Management Tab

These processing options specify which order type is assigned to Real Estate Management orders during conversion.

1. Order Type value 01 for Real Estate Management Orders

Use this processing option to specify the order type for property management orders.

2. Order Type value 02 for Real Estate Management Orders

Use this processing option to specify the order type for property management orders.

3. Order Type value 03 for Real Estate Management Orders

Use this processing option to specify the order type for property management orders.

4. Order Type value 04 for Real Estate Management Orders

Use this processing option to specify the order type for property management orders.

5. Order Type value 05 for Real Estate Management Orders

Use this processing option to specify the order type for property management orders.

Rate Schedule Tab

These processing options specify which order type is assigned to rate schedules during conversion.

1. Order Type value 01 for Rate Schedule Orders

Use this processing option to specify the order type for rate schedules.

2. Order Type value 02 for Rate Schedule Orders

Use this processing option to specify the order type for rate schedules.

3. Order Type value 03 for Rate Schedule Orders

Use this processing option to specify the order type for rate schedules.

4. Order Type value 04 for Rate Schedule Orders

Use this processing option to specify the order type for rate schedules.

5. Order Type value 05 for Rate Schedule Orders

Use this processing option to specify the order type for rate schedules.

EPM Summary Order Tab

These processing options specify which order type is assigned to EPM summary orders during conversion.

1. Order Type value 01 for EPM Summary Orders

2. Order Type value 02 for EPM Summary Orders

3. Order Type value 03 for EPM Summary Orders

4. Order Type value 04 for EPM Summary Orders

5. Order Type value 05 for EPM Summary Orders

Converting Order Types

In the J.D. Edwards Windows environment, choose Batch Versions from the System Administration Tools menu (GH9011).

In J.D. Edwards ERP 9.0 software, different work orders have to be designated by different document types. For example, if manufacturing work orders have document type WO, equipment orders have to be assigned a different document type. To ensure that the different types of work orders have unique document types, you run the Order Type Conversion program (R31P802). It assigns new document types to work orders based on the definition in the processing options.

Processing Options for Order Type Conversion (R31P802)

Default Tab

This processing option defines the new order type to which the selected work orders should be converted.

1. Order Type (to be converted to)

Use this processing option to specify the new order type to which orders are converted. The order type that you specify here will be the default order type for the selected records.

Process Tab

This processing option controls whether the conversion program runs in proof or final mode.

1. Mode

1 = Final

Blank = Proof

Use this processing option to specify whether the program runs in proof mode or final mode. When you run the program in proof mode, the system generates a report but does not update data. When you run the program in final mode, the system updates the order type in the Work Order Master File table (F4801) and all related tables that store the document number (DOCO) and order type (DCTO) related to work orders. Valid values are:

Blank

Proof mode

1

Final mode

Setting Up Standard Procedures

You can set up codes and text to describe standard procedures for your work orders. For example, you can do the following:

- Designate a specific procedure for a work order or group of work orders.
- Provide a list of instructions to complete a work order.
- Include messages for work orders.

For example, you might set up a code called 1000 for a 1000-hour maintenance inspection. For the 1000 code, you can enter text to describe procedures, such as checking coolant levels and adjusting belt tension.

To avoid retyping similar procedures for every work order, you can also copy the appropriate message text from another procedure.

After you set up standard procedures, you can assign them to the appropriate work orders.

► To set up standard procedures

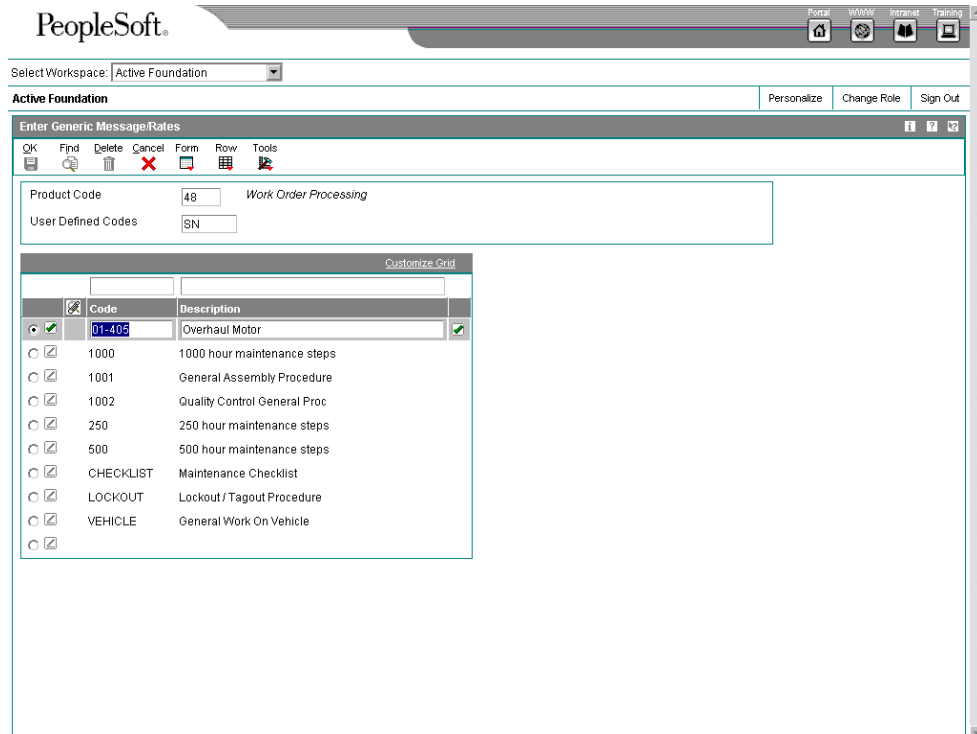
Use one of the following navigations:

For the Work Orders system, choose Standard Procedures from the Work Order Setup menu (G4841).

For the Product Data Management system, choose Standard Procedure Descriptions from the Product Data Management Setup menu (G3041).

For the Shop Floor Management system, choose Standard Procedures from the Shop Floor Management Setup menu (G3141).

1. On Work With Generic Message/Rate Types, click Select or Add.



2. On Enter Generic Message/Rates, in a blank record, complete the following fields:
 - Code
 - Description
3. Choose the record that you entered and then choose General Message from the Row menu.
4. On General Message, to enter new message text, complete the following field:
 - Description
Enter a description of the standard procedure.
5. Click OK and go to Step 12.
6. On General Message, to copy message text from another procedure, choose Search from the Row menu.
7. On Standard Text Search, complete any of the following fields and click Find:
 - Product Code
 - User Defined Codes
 - Message Number
8. Choose the rows of text to copy and click Select.
The text that you selected to copy appears on the General Message form.

9. On General Message, click OK.

The system adds the message text to the standard procedure code.

10. On Enter Generic Message/Rates, click OK.

If you need to change message text for a standard procedure code, you can type over the existing text.

Processing Options for Standard Procedures (P00191)

Defaults

1. System Code

2. Record Type
Display

1. Text Type

- 1 = Display Rate Text
- 2 = Display Message Text

2. Text Column Display

- 1 = 60 Column Display
 - 2 = 80 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.

When you use actual costing, the rate that you define for each employee appears in the Employee Rate field on the Time Entry Revisions form (W311221C) when the employee enters time transactions.

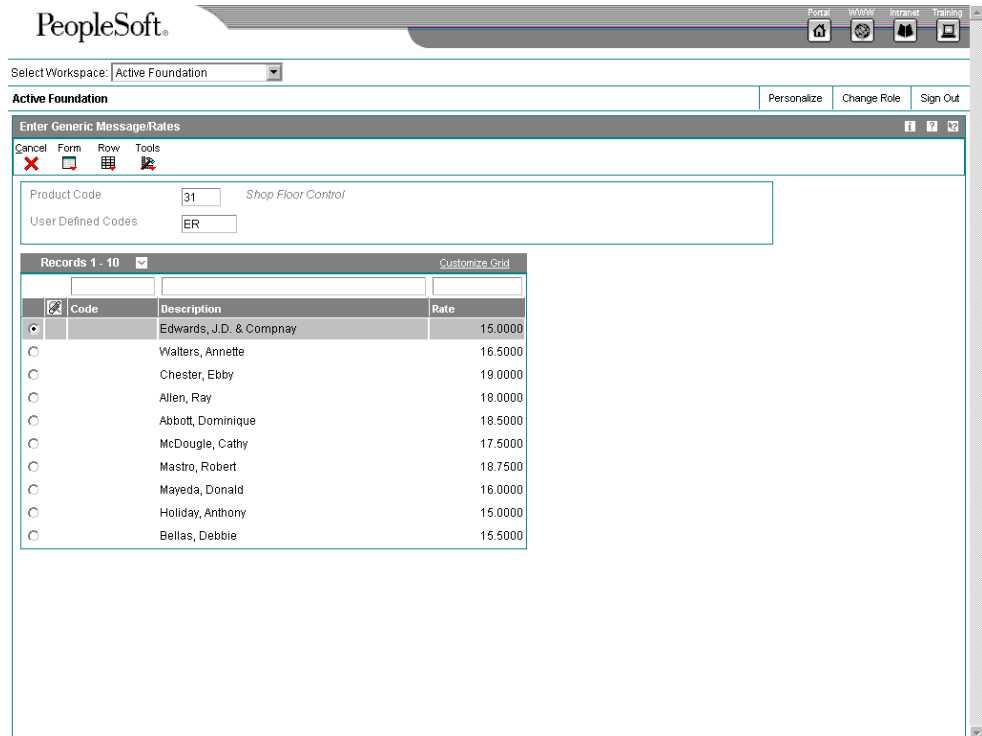
See Also

- *Setting Up Manufacturing Constants* in the *Product Costing and Manufacturing Accounting Guide* for information about 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.



2. On Enter Generic Message/Rates, access a blank row in the detail area, complete the following fields, and then 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 use the Shop Floor Calendar program (P00071) to define the work days by month and year for each branch or all branches in your system. 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 in the Shop Floor Calendar program.

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

► To add a work day calendar

Use one of the following navigations:

For the Accounts Payable and Accounts Receivable systems, choose Work Day Calendar from the Payment Terms Revisions menu (G00141).

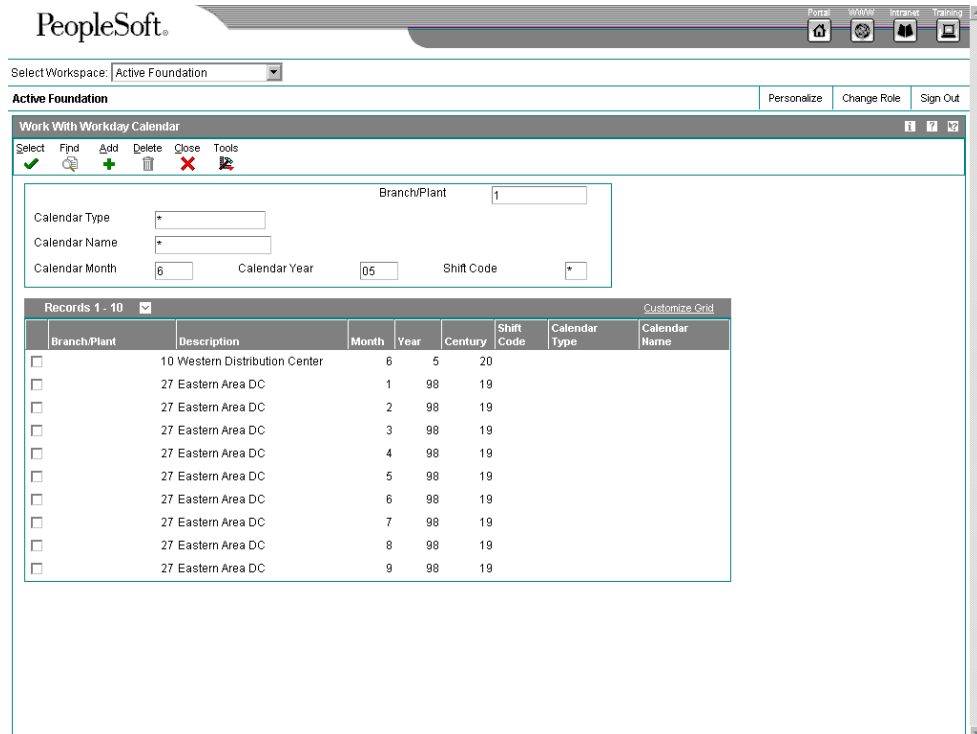
For the Enterprise Asset Management system, choose Work Day Calendar from the Planning Setup menu (G1346).

For the Transportation Management system, choose Work Day Calendar from the Transportation Setup menu (G4941).

For the Shop Floor Management system, choose Shop Floor Calendar from the Shop Floor Management Setup menu (G3141).

For the Product Data Management system, choose Shop Floor Calendar from the Product Data Management Setup menu (G3041).

The Work With Workday Calendar form appears, displaying all of the calendars that have been set up.



1. To add a new calendar, on Work With Workday Calendar, complete the following required fields:

- Branch/Plant

With the exception of ALL, which is a hard-coded value for this program, the branch/plant that you assign must exist in the Business Unit Master table (F0006).

- Calendar Year
- Calendar Month

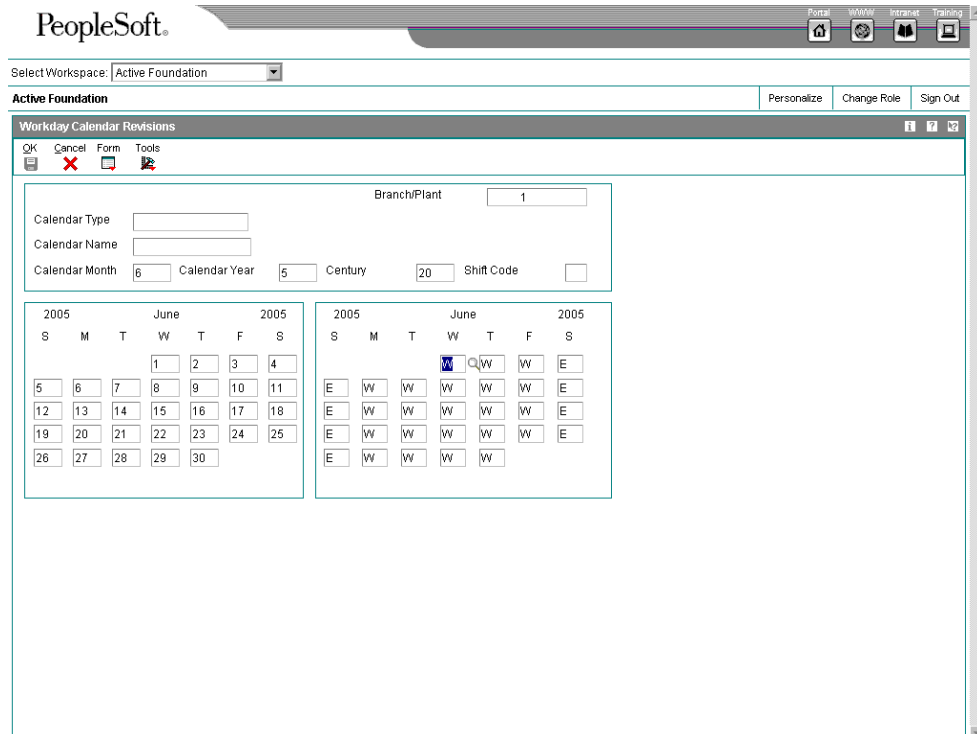
2. Complete the following optional fields to specify unique calendars for the same branch/plant:

- Calendar Type
- Calendar Name
- Shift Code

If you enter a value in the Calendar Name field, you must enter a shift code.

3. Click Add.

The Workday Calendar Revisions form appears, displaying two calendars for the month and year. The calendar on the left shows the numerical days, and the one on the right shows the work days and nonworking days.



- On Workday Calendar Revisions, change the default values as necessary for each day of the week and click OK.

The types of days that you can specify are in UDC 00/TD. With the exception of W, which is hard-coded as a work day, all other values specified are nonworking days. Examples of the type of day that you can specify on the calendar are:

- W (workday)
- E (weekend)
- H (holiday)
- S (shut-down)

Processing Options for Workday Calendar (P00071)

Interop

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

Type - Transaction

- 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

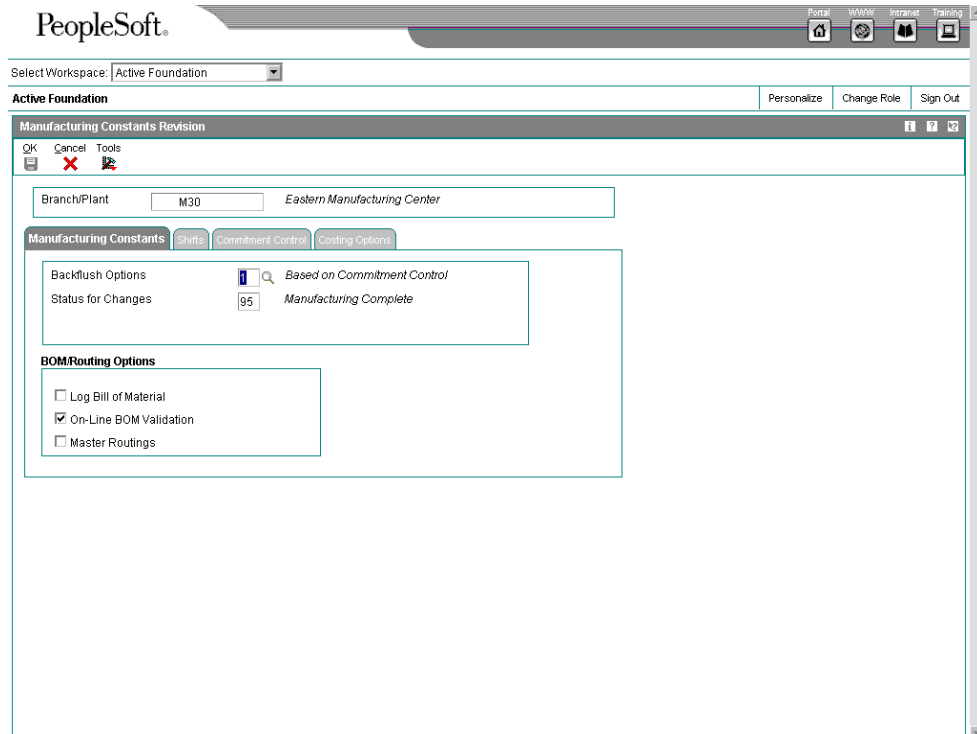
You set up manufacturing constants to define branch-specific information that affects processing throughout the J.D. Edwards Manufacturing systems. You can use the Manufacturing Constants program (P3009) to specify the values for constants. The following table describes the information that appears on each tab of the Manufacturing Constants program:

Manufacturing constants	<p>These constants specify the following:</p> <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 that are defined for the parent item
Shifts	<p>These constants specify the number of work hours that the plant typically operates in a day.</p>
Commitment Control	<p>These constants specify when inventory is committed and backflushed.</p>
Costing options	<p>These constants specify which overhead cost calculations are used and whether the system considers work center efficiency when it calculates direct labor and overhead costs. You can specify whether costs are maintained by cost components and work center or by cost component only. Costing options also include the source for machine and labor rates.</p>

► To set up manufacturing constants for Shop Floor Management

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. On Manufacturing Constants Revision, click the following required BOM/Routing option to turn it on:
 - On-Line BOM Validation
4. 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 to turn them on:
 - Log Bill of Material
 - Master Routings
6. Click the Shifts tab and then complete the following fields:
 - Work Hours
 - Shift Code

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

7. Click the Commitment Control tab, and then 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 OK.

See Also

- *Setting Up Manufacturing Constants for Product Costing* in the *Product Costing and Manufacturing Guide* for information about defining costing options.

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. You set up work centers by branch/plant, which means that you can associate the same work center with multiple branch/plants. You can also define a unique shop floor calendar for a particular combination of work center and branch/plant.

From the Enter/Change Work Centers program (P3006), you can access business unit information to maintain business units and track costs.

Note

If you use the Warehouse Management system 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 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. This process follows the rules that you define in the Warehouse Management system.

Use the Enter/Change Work Centers program to set up production lines for repetitive manufacturing. This setup consists of linking work centers together to establish a specific repetitive line on which a product family will be manufactured.

Before You Begin

- Set up your work centers and dispatch groups as valid business units in the Revise Single Business Unit program (P0006). See *Working with Business Units* in the *General Accounting Guide*.

► 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

Select Workspace: Active Foundation

Active Foundation

Work Center Master Revisions

Work Center: 200-101 Branch/Plant: D30

Work Center Master

Dispatch Group: 200-100

Location - Issue:

Location Branch: D30

Calendar Name:

Work Center Type: 0

Crew Size: 1.0

Pay Point: 0

Number of Machines: 2

Prime Load: B

Number of Employees: 3

Critical W/C: 3

Resource Offset:

2. On Work Center Master Revisions, complete the following fields:
 - Work Center
 - Branch/Plant
3. On the Work Center Master tab, complete the following fields:
 - Prime Load
 - Crew Size
 - Number of Employees
4. If you want to associate a particular shop floor calendar with the work center, complete the following field:
 - Calendar Name

Note

If you are setting up a work center as a production line, complete the following fields as well:

- Dispatch Group
 - Location - Issue
 - Location Branch
 - Work Center Type
 - Pay Point
 - Critical W/C
 - Number of Machines
-

5. Click the Capacity & Shifts tab and complete the following fields:

- Work Hours
 - Shift
-

Note

If you are setting up a work center as a production line, complete the following fields as well:

- Standard Capacity
 - Capacity UOM
 - Minimum Capacity
 - Maximum Capacity
-

6. Click the Hours & Efficiency tab and complete the following optional fields:

- Queue Hours
- Move Hours

7. Click OK.

See Also

- ❑ *Working with Work Centers* in the *Product Data Management Guide* for more information about defining costing and accounting information for work centers
- ❑ *Setting Up Simulated Rates for Work Centers* in the *Product Costing and Manufacturing Accounting Guide* for information about maintaining simulated work center rates

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 back-schedule 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 the Work Center Resource Units Generation program (R3007G), the system recalculates the form values based on information in the Work Center Revisions program (P3006), the Shop Floor Calendar program (P00071), and the Job Shop Manufacturing Constants table (F3009), and then overwrites the changes that you entered manually, based on the effectivity dates that you specified in the processing options.

The Work Center Resource Units Generation program recalculates the work center hours and updates them on the Work Center Resource Units program (P3007). 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 F3009 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 multiplied by work hours per day
- Labor-related hours (prime load code = L or B)
Number of employees multiplied by work hours per day

Before You Begin

- ❑ Define work days for the branch or plant in the shop floor calendar.

► To set up resource units

Use one of the following navigations:

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

For Enterprise Asset Management, choose *Craft Resource Units* from the *Labor Planning* menu (G1324).

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:
 - Shift
3. Click Find.
4. Choose a record and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work Center Resource Unit Revision

Cancel Form Tools

Work Center: R-A1 Frame Line 1 Branch/Plant: M30

Month/Year: 1/0 Century: 20 Unit of Measure: WU Shift:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Efficiency
2	3	4	5	6	7	1	100.00
9	10	11	12	13	14	8	
16	17	18	19	20	21	22	Utilization
23	24	25	26	27	28	29	100.00
30	31						

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

5. On Work Center Resource Unit Revision, complete the following field for each day:
 - Total Resource Units
6. Complete the following optional fields:
 - Efficiency
 - Utilization
7. Click OK.
8. 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.

9. Click OK.

See Also

- *Setting Up the Shop Floor Calendar*
- *Generating Resource Units Automatically* in the *Requirements Planning Guide* 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 Calendar (P00071)

Setting Up Item-to-Line Relationships

For repetitive manufacturing, 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 (P31093) allows you to add, change, and delete data that is stored in the Line/Item Relationship Master table (F3109). You can define work center operations within a production line.

► **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

The screenshot shows the PeopleSoft interface for 'Line/Item Relationships Revisions'. The dialog box has a title bar with 'Line/Item Relationships Revisions' and standard window controls. Below the title bar are buttons for 'OK', 'Cancel', and 'Tools'. The main area contains several input fields: 'Branch/Plant' with the value 'M30', 'Item Number' with the value '220', 'Line/Cell Identifier', 'Capacity consumed', 'Use As Default (0/1)' with the value '0', 'Default Shift', and 'Default Period'. The 'Active Foundation' header is visible at the top of the page, along with 'Personalize', 'Change Role', and 'Sign Out' links.

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

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

Work Orders and Rate Schedules

Work orders and rate schedules are requests to complete a given quantity of a specific item. 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. Work orders and rate schedules consist of a header, parts list, and routing instructions.

The work order header specifies the quantity of the item requested and the date on which the quantity is required. The parts list and routing instructions specify the components, operations, and resources that are required to complete the work order. However, the rate schedule header specifies not only the quantity of the item requested and the required date, but also the production line. 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.

Creating Work Orders or Rate Schedules

You can create work orders or rate schedules in several different ways. You can enter a work order header manually. You can also create a work order as a result of master production scheduling or material requirements planning. Finally, when you create a sales order line with line type W, the system automatically creates a work order.

After creating a work order header, you attach the parts list and routing instructions, as well as the coproducts and by-products list, if applicable. You can perform these steps manually, interactively, or by using the Order Processing program (R31410). This batch program allows you to process multiple work orders or rate schedules. It performs the following actions:

- Updates the status of each work order or rate schedule
- Supplies the date to use for effectivity checking
- Issues inventory
- Prints shop paperwork
- Calculates standard costs for configured items
- Allows substitute items to be used
- Generates 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 list of coproducts and by-products to create the work order or rate schedule, using the Order Processing program. However, you can either attach this information to the work order or rate schedule interactively or revise it manually after you run the batch program. For example, to change a part on the parts list or specify substitutes, you can do so manually after you run the batch program. When you attach routing instructions to your work order or rate schedule interactively or revise them manually, 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 list of coproducts and by-products, you use the processing options for the Work Order Entry (P17714) and Order Processing programs to define information, such as the unit of measure to use for backscheduling the work order or rate schedule.

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 test and record test results for manufactured items in the following ways.

- Use the Quality Preference Revisions program (P40318) 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 that you defined for the parent item
-

See Also

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

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, by entering the required parts on the Work Order Parts List form (W3111A)
- Interactively, by copying a bill of material or an existing parts list
- Automatically, using the Order Processing program (R31410)
- Automatically, by setting a processing option for the Work Order Routing Instructions program (P3112) after you attach routing instructions using the work order entry program

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

- 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 the system does not find a match, it 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 examples illustrate 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	10	25	30

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

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

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

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

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 Shop Floor Management system includes lower-level components of phantom items when you attach a parts list. Phantom items are characterized by the following:

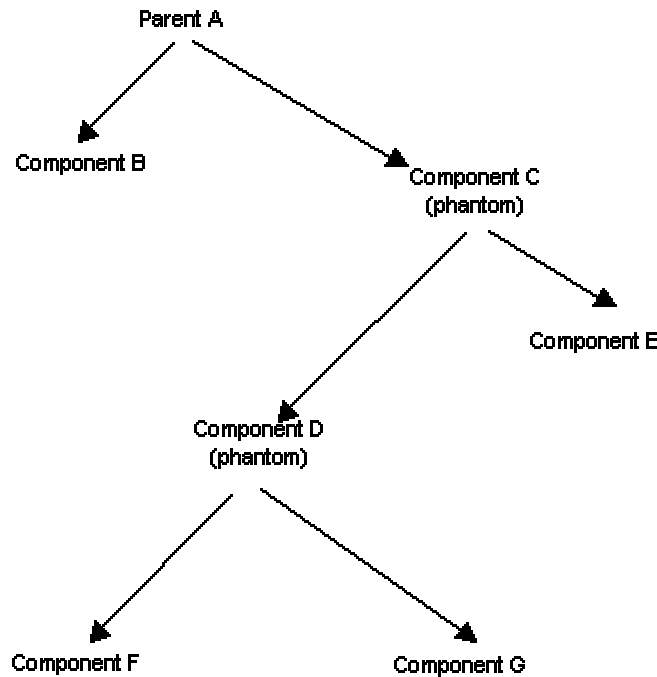
- They are not planned by MRP.
- They can be any lower-level component in the bill for a parent item.
- They can be used to define a subassembly within a parent item when the subassembly is not stocked in inventory or planned by MRP, but is consumed by the parent.

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

Parts List Requirements

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

Requirements



For variable quantity items, the system calculates component quantities according to the order quantity on the work order.

Note

When 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.

When the inventory available is insufficient to cover the parts list requirements for the work order, the system highlights the Order Quantity field on the parts list for the item that is in short supply.

The lead time 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 lead time offset days for the part to the start date of the work order to determine the actual date on which the part is required. To indicate how many days after the work order start date that the part is required, enter a positive number on the Enter Bill of Material Information form (W3002A). 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 lead time offset days are items that need processing or inspection before they can be used in an assembly. If the requested date for a component is later than the order completion date, the system enters the order completion date for the item.

When you define a shrink factor for the item on the Additional System Info form of the Item Branch program (P41026), the system compensates for the loss by increasing the component requirements for parent items by the percentage or quantity. The system displays the increased order quantity in the Order + Shrink field on the work order header. You use scrap or yield to inflate the component quantity. The system includes shrink adjustments, if applicable, when it calculates parts list quantities and routing instructions for the order.

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, by entering each work center on the Work Order Routing form (W3112E)
- Interactively, by using the Work Order Entry program (P48013)
- Automatically, by setting a processing option for the Work Order Parts List program (P3111) after you attach a parts list using the work order entry program
- Automatically, using Order Processing (R31410)

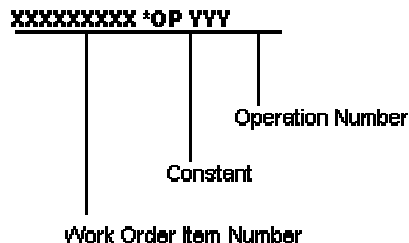
Regardless of the method that you use to attach routing instructions to work orders, you should attach the instructions at the same time that you attach the parts list. The system uses the routing instructions to verify information about each item on the parts list.

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. You can also create purchase orders interactively as you add the routing step that includes the outside operation. When you record the receipt through the Purchase Order Receipts program (P4312), the Routing Quantities and Status form automatically appears and allows you to update the routing quantities and status as necessary.

You can also track costs for the outside operations. To do so, set up the outside operation as an item in the Item Master table (F4101), by using the following item number structure as the item number before you process the order.

Item Number Structure



You can then assign a unit cost to the item on the Cost Revisions form (W4105A). The unit cost will be added to the item cost of the total parent when you run a cost rollup.

If you do not set up the outside operation as an item in the F4101 table, the system uses the structure mentioned previously to generate an item number for the operation, and enters the item number 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 and cause errors in the Purchase Order Receipts program.

The quantity of the new item 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 be unable to create a purchase order for the following reasons:

- The routing instructions for the parent item do not include an item master or item branch record that has an outside operation
- The purchasing order activity rules were not set up for combination of line type, document type, and status

Attaching Co-products and By-Products

For process manufacturing, you attach coproducts and by-products after you enter a work order header. Co-products are usually manufactured together or sequentially because of product or process similarities. By-products are materials for which production is incidental to the process, but that may have value.

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

- Manually, by making changes after running the Order Processing program (R31410)
- Interactively, by using the Work Order Entry program (P48013)
- Automatically, by attaching them after the header is entered by setting a processing option in the Work Order Entry program (P48013)
- Automatically, by setting a processing option to attach them from the MRP system

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. You can use intermediates to verify quality as the process is running to ensure that the end product is produced according to specifications.

Calculating a Start Date

After you enter all required work order information on the Work Order Details form (W48013A), the system calculates the start date for the work order. To calculate the start date of a work order based on the order's due date, the system uses level lead time or lead time per unit for an item that is defined on the Plant Manufacturing tab on the Additional System Info form (W41026D). The system calculates the start date using either the item's fixed lead time or its variable lead time. For process work orders, you use the effective dates to schedule the rate.

See Also

- *Lead times* in the *Shop Floor Management Guide* for detailed information about lead time calculations

Fixed Lead Time

When an item on a work order has a fixed lead time, the system determines the start date by using the level lead time to backschedule.

For example, assume the following:

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

Note

The shop floor calendar determines which days are considered work days.

The system has a start date of 10/12/99. The system then calculates the start date for the work order by subtracting the level lead time or lead time per unit, depending on the fixed or variable lead time option, from the required date. The system displays an error message if either of the following conditions occurs:

- The start date differs from the date of the first operation sequence on the routing instructions for the item
- The operation sequence dates could not be calculated using back scheduling

Note

The system schedules work orders to be completed by the end of the day on the day before the work order is due.

Variable Lead Time

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

$$\frac{(\text{Lead time per unit} \times \text{order quantity} / \text{Time Basis Code (Item Branch)}) + \text{setup} + \text{queue}}{\text{Work hours per day}}$$

For example, assume the following:

- Work order due date = 10/15/99
- Lead time per unit = 32 hours
- Work order quantity = 1000
- Setup = 1 hour
- Queue = 9 hours
- Time basis code = 4 (units/1000)
This information is from the Item Branch File 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, the Shop Floor Management system assigns a completion date for the routing instructions that is one day prior to the MPS/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 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.

After you have defined your work order routing instructions, the system performs the following actions:

- Retrieves the resource units for the work center of each operation.
- Consumes the hours (queue, run, then move hours) using the calculations for either fixed or variable lead time.
- Scales the work center's remaining units proportionate to the previous operation's remaining units. For example, if 25 percent 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 percent of its daily total. This calculation assumes that all work centers have consumed 50 percent 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 instruction information
- Shop packet summary
- Parts list shortages

To generate shop paperwork, you must run the Order Processing program (R31410) with the Shop Packet Summary processing option activated.

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. If you have set up the order item with a secondary unit of measure in the Item Master (P4101) and Item Branch/Plant (P41026) programs, you can enter the order information in both the primary and the secondary unit of measure, but this entry is not required.

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 when the requested date is in error.

If the order is created for a lot-controlled item, you can define a planned effective date, on which the item will be available for sales or commitments. You can enter this date manually or you can let the system calculate the date based on the Manufacturing Effective Days field in the Item Branch File table (F4102). If the Manufacturing Effective Days field is blank, the work order's requested date provides the default value for the Planned Effective Date field.

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

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

You need to differentiate each type of work order, such as manufacturing work orders, rework orders, repair orders, engineering change orders, orders for prototypes, and so on, by assigning each of them a unique document type and work order type. You use the Document Type Maintenance program (P40040) to set up these document constants.

Use the Enter/Change ECO program (P48020) to create a work order for a prior revision level by doing the following:

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

You might want to determine 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 the following additional forms:

Order Address Information (W4006B) Use this form 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 (W48013A) Use this form to add detailed information to the work order description.

Media Objects Use this form 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 do not affect the text that was originally attached to the bill of material.

You can also review update dates and information about the user by choosing Properties from the File menu on the Media Objects form. By choosing Templates from 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:

Requirements Planning integration The Distribution Requirements Planning, Master Production Schedule, and Material Requirements Planning systems suggest purchase and manufacturing orders that 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.

Before You Begin

- In the processing options, enter the unit of measure that you want the system to use for backcheduling the routing operations for the process.
- Set up the shop floor calendar for the work days and months that the order activity requires, including lead times.
- Set up the document types that you use to identify different work order types in the Order Type user defined code table 48/OT.
- If the new document types are to be used in other J.D. Edwards Manufacturing systems, specify which work order types to use in the processing options for the Supply/Demand Inclusion Rules program (P34004).
- Set up valid work center locations.

► 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work Order Details

OK Cancel Form Tools

Order No/Type: 451004 W/O Branch/Plant: M30

WO Desc: Touring Bike, Red W.O. Scheduling

Item No.: 220

Select Tab: Dates & Qtys

Dates	Quantities
Requested: 06/28/05	Order/UOM: 2000 EA
Planned Effective: 06/28/05	Secondary/UOM: <input type="checkbox"/>
Start: 06/24/05	Shipped: <input type="checkbox"/>
Work Order: 05/08/97	Canceled: <input type="checkbox"/>
Completed: <input type="checkbox"/>	

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

- Type
 - Freeze Code
6. Click the Addl Details 1 tab, and then complete the following optional fields:
 - Charge to CC
 - Parent WO
 - Lot/Serial

Note

If the system created a work order from a sales order line with line type W, the fields on the Addl Details 2 tab are updated with information from the work order.

7. To add specific notes to your work order, click the Attachment tab.
8. Enter the information that you want to attach to the work order in the space provided.
9. Click OK.

See Also

- *Reviewing Part Availability* in the *Shop Floor Management Guide* to determine the availability of a part

Processing Options for Enter/Change Order (P48013)

Defaults Tab

Use these processing options to specify the default values for backscheduling 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 and Move 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 field.

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

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 / ConfiguredTab

Use these processing options to specify the default values for the work orders that are 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 (Before Cutoff)

Use this processing option to specify the status code that the system assigns to a sales order-generated work order when the related sales order is changed. The system assigns this status to the work order if the current status of the work order is less than the cut-off status. If you leave this processing option blank, the system will not update the status of the work order when the sales order changes. Status codes are user-defined codes (00/SS). Enter a default status code or choose it from the Select User Define Codes form.

3. Changed Status Code (After Cutoff)

Use this processing option to specify the status code that the system assigns to a work order when the related sales order is changed. The system assigns this status if the current status of the work order is greater than the cut-off status. Status codes are user defined codes (00/SS). If you leave this processing option blank, the system will not

update the status of the work order when the sales order changes.

4. 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.

5. 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 codes are user defined codes (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 when quantities change, and whether to validate that the parts list text matches the item/branch record.

1. Quantities and Dates

1=The program recalculates the Parts List and Routing 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 when the quantities or the dates on the work order change. Valid values are:

1

The system recalculates parts list, routing instructions, and the production costs.

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 validates an existing item/branch record when you add or update a work order. Valid values are:

Blank

Do not validate an existing item/branch record.

1

Validate an existing item/branch record.

Hold Codes Tab

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

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 for work orders that are not manufacturing work orders. Work orders are manufacturing work orders when 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:

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.

7. Configured Item Specification (P32942)

Use this processing option to specify the version of the Configured Item Specifications program (P32942) that the system uses when you create a work order for a configured item. If you leave this processing option blank, the system uses version ZJDE0001.

8. Related Configured Orders

Use this processing option to specify the version of the Related Configured Orders program (P3201) that the system uses when you call this program from the Work With Manufacturing Work Orders form. If you leave this processing option blank, the system uses version ZJDE0001.

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 (P3109) to add a rate schedule. When you add a rate, the system verifies the following:

- The line exists in the Line/Item Relationship Master table (F3109)
- The dates appear in the appropriate shop floor calendar
- The effective date ranges are within 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 the Manufacturing Constants program (P3009). You can then identify all shifts for the production line by work center, if necessary. After you set up the shifts, use the Line Scheduling Workbench program (P3153) and the Line Sequencing Workbench program (P3156) to schedule production.

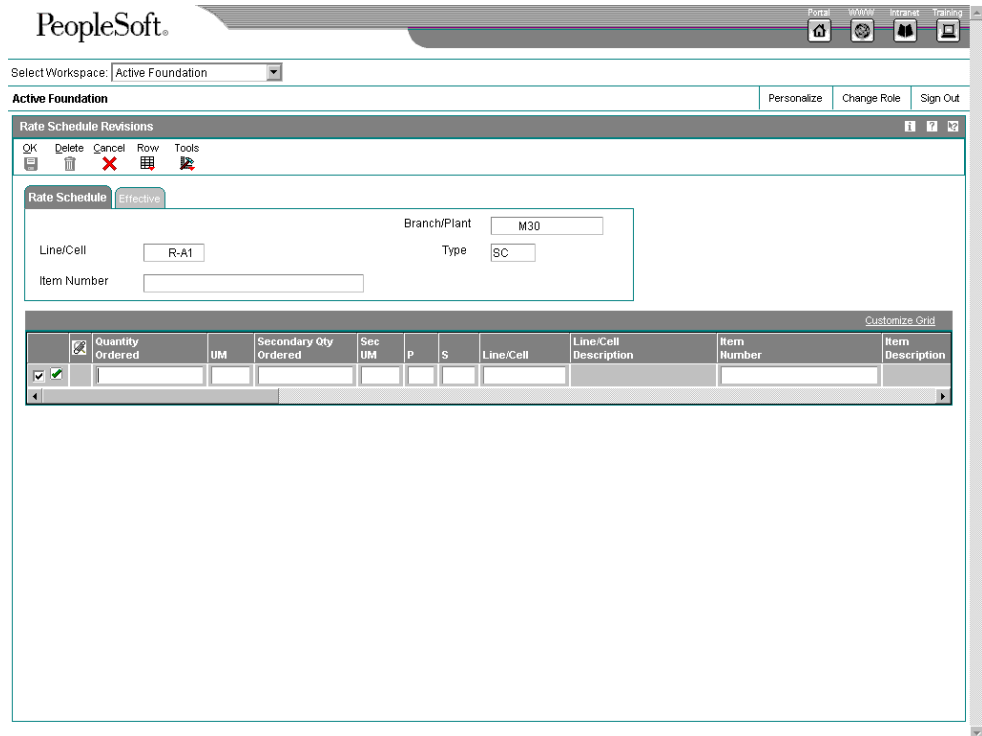
Before You Begin

- Use the Line/Item Relationships program (P31093) to create a relationship between a line and an item.
- Set 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
 - UM
 - Line/Cell
 - Item Number
4. Complete the following optional fields:
 - Secondary Qty Ordered
 - Sec UM
 - P
 - S
 - Rate Status
 - Category 1
 - Category 2
 - Category 3

- Bill Type
 - Routing Type
 - Freeze Code
5. Click OK.

Depending on how you set the Attach Parts List and Routing processing option, the system can attach the parts list and routing instructions to rate schedules automatically by calling the Order Processing program (R31410) when you click OK.

See Also

The following topics in the *Shop Floor Management Guide*:

- ❑ *Work Order and Rate Schedule Information* for more information about using the Order Processing program (R31410).
- ❑ *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 shifts
- ❑ *Setting Up Work Centers* for information about setting up production lines
- ❑ *Setting Up Item-to-Line Relationships* for information about creating relationships between lines and items

Processing Options for Enter/Change Rate Schedule (P3109)

Defaults Tab

Use these processing options to specify default values to be used in the Enter/Change Rate Schedule program.

1. Rate Type

Use this processing option to specify the default rate type (UDC 00/DT) for a work order. If you leave this processing option blank, the system uses rate type SC.

2. Scheduling Unit of Measure

Use this processing option to specify the default unit of measure (00/UM) to use for scheduling.

3. Number of Days to Add to Today's Date for the Thru Date (Optional)

Use this processing option to specify the effective thru date for a rate. Specify the number of days that the system adds to the current date to calculate the effective thru date. The effective thru date specifies when a rate is no longer active. This date acts as a filter for reviewing rates.

4. From Status

Use this processing option to specify the From Status (UDC 00/SS) for a work order rate. From Status acts as a filter when you review rates.

5. Thru Status

Use this processing option to specify the default Thru Status (UDC 00/SS) for a rate. Thru Status is used as a filter for reviewing rates.

6. Beginning Status

Use this processing option to specify the default Beginning Status code (UDC 00/SS) on the rate header. The Beginning Status code specifies the status that you use to create new rates.

Note: This processing option is not used if the parts list and routing are created in batch mode. The system uses the beginning status from the Order Processing program (R31410) for batch mode.

7. Closed Rate Status Code

Use this processing option to specify the Closed Rate Status code (UDC 00/SS) that the system uses to indicate a closed rate. If you leave this processing option blank, the system uses 99.

8. Charge to Business Unit

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

Blank

Use the branch/plant number.

1

Charge the business unit that is associated with the job number in the Business Unit Master table..

Display Tab

Use this processing option to control whether the system displays all rate schedules or only open rate schedules.

1. Open Schedules

Use this processing option to specify whether the system displays all schedules or open schedules only. Open schedules include schedules that have a status code that is less than the Closed Rate Status code. Valid values are:

Blank

Display all schedules.

1

Display open schedules only.

Categories Tab

Use these processing options to specify default values for the category code fields either by entering them manually or by retrieving them from the corresponding Item Branch class codes.

1. Category Code 1 (optional)

Use this processing option to specify the default category code (00/W1) for the rate schedule.

2. Category Code 2 (optional)

Use this processing option to specify the default category code (00/W2) for the rate schedule.

3. Category Code 3 (optional)

Use this processing option to specify the default category code (00/W3) for the rate schedule.

4. Category Code 1 (optional)

Use this processing option to specify the default item/branch category code UDC value (32/CC) to use for new rate schedule headers. The Line Sequencing Workbench program (P3156) sequences rate schedules either by rate sequence number or by this category

code.

5. Category Code 2 (optional)

Use this processing option to specify the default item/branch category code UDC value (32/CC) to use for new rate schedule headers. The Line Sequencing Workbench program (P3156) sequences rate schedules either by rate sequence number or by this category code.

6. Category Code 3 (optional)

Use this processing option to specify the default item/branch category code UDC value (32/CC) to use for new rate schedule headers. The Line Sequencing Workbench program (P3156) sequences rate schedules either by rate sequence number or by this category code.

Process Tab

Use this processing option to specify whether the system automatically attaches the parts list and routing to the rate schedule.

1. Attach Parts List and Routing

blank = Parts list and routing will not be attached

1 = Attach parts list and routing interactively

2 = Attach parts list and routing through batch processing

Use this processing option to specify the method the system uses to attach parts lists and routings to the rate schedules. Valid values are:

Blank

Do not attach parts lists and routings.

1

Attach parts lists and routings interactively.

2

Attach parts lists and routings through batch processing.

Edits Tab

Use these processing options to specify whether the system automatically updates the parts list and routing when rate quantities and dates change, and validates existing item branch records when you add rate schedules.

1. Update Parts List and Routing

blank = No recalculation will be performed when quantities or dates change

1 = Update parts list and routing when rate quantities or dates change

Use this processing option to specify whether the system automatically recalculates parts list quantities, routing quantities, and dates when you change rate schedule quantities or rate schedule dates from the Enter/Change Rate Schedule program (P3109). Valid values are:

Blank

Do not recalculate parts list quantities, routing quantities, or dates.

1

Update parts list, routing quantities, and dates.

2. Validate Existing Branch/Item Records

blank = Do not validate

1 = Validate for existing branch/item records

Use this processing option to specify whether the system validates an existing item/branch record when you add or update a rate schedule. Valid values are:

Blank

Do not validate an existing item/branch record.

1

Validate an existing item/branch record.

Versions Tab

Use these processing options to specify which versions the system uses when it calls the following programs from the Enter/Change Rate Schedule program.

1. Completions Workbench (P3119).

Use this processing option to specify the version that the system uses when you choose the Completions Workbench program (P3119) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Completions Workbench program. The version controls how the Completions Workbench program displays information.

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

Use this processing option to specify the version that the system uses when you choose the MPS Time Series program (P3413) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the MPS Time Series program. The version controls how the MPS Time Series program displays information.

3. Bill Availability (P30200).

Use this processing option to specify the version of the Bill of Material Inquiry program (P30200) that you want to use when you choose Availability from the row menu of the Work With Rate Schedules form. If you leave this processing option blank, the system uses version ZJDE0001.

4. Assign Serial Numbers (P3105).

Use this processing option to specify the version that the system uses when you choose the Assign Serial Numbers program (P3105) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Assign Serial Numbers program. The version controls how the Assign Serial Numbers program displays information.

5. Lot Master Revisions (P4108).

Use this processing option to specify the version that the system uses when you choose the Lot Master program (P4108) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Lot Master program. The version controls how the Lot Master program displays information.

6. Bill of Materials Revisions (P3002).

Use this processing option to specify the version that the system uses when you choose the Bill of Material Revisions program (P3002) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Bill of Material Revisions program. The version controls how the Bill of Material Revisions program displays information.

7. Bill of Materials Inquiry (P30200).

Use this processing option to specify the version that the system uses when you choose the Bill of Material Inquiry program (P30200) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Bill of Material Inquiry program. The version controls how the Bill of Material Inquiry program displays information.

8. Line Scheduling Workbench (P3153).

Use this processing option to specify the version that the system uses when you choose the Line Scheduling Workbench program (P3153) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Line Scheduling Workbench program. The version controls how the Line Scheduling Workbench program displays information.

9. Supply/Demand Inquiry (P4021).

Use this processing option to specify the version that the system uses when you choose the Supply and Demand Inquiry program (P4021) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Supply and Demand Inquiry program. The version controls how the Supply and Demand Inquiry program displays information.

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

Use this processing option to specify the version that the system uses when you choose the Order Processing program (R31410) from row exit of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0008 of the Order Processing program. The version controls how the Order Processing program updates information.

11. Parts List (P3111).

Use this processing option to specify the version that the system uses when you choose the Work Order Parts List program (P3111) from the row menu of the Work with Rate Schedule form. If you leave this processing option blank, the system uses version ZJDE0001 of the Work Order Parts List program. The version controls how the Work Order Parts List program displays information.

12. Routing (P3112).

Use this processing option to specify the version of the Work Order Routing program (P3112) that the system uses when you choose it from the row menu of the Enter/Change Rate Schedule program (P3109). If you leave this processing option blank, the system uses version ZJDE0001. The version controls how the Work Order Routing program displays information.

Interoperability Tab

Use this processing option to specify the export transaction type when using interoperability.

1. Export Transaction Type

Use this processing option to specify the transaction type that the system uses for export processing or for supply chain scheduling and planning. Transaction type is a user defined code (00/TT).

Note: Blank is a valid value if you do not choose to use export processing.

Hold Codes Tab

Use this processing option to specify the default hold code for related purchase orders.

1. Related Purchase Order

Use this processing option to specify the default hold code for a purchase order. Hold code is a user defined code (42/HC) that identifies whether the purchase order is being held.

Processing Work Orders and Rate Schedules

After you enter a work order header, you can use the Order Processing batch program (R31410) 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 interactively, you can use the Order Processing batch program to generate and print the shop paperwork.

The processing options for the Order Processing program allow you to perform a wide range of functions, such as the following:

- Generate a parts list and routing instructions
- Indicate the date to use for effectivity verification
- Change the status code of the work orders or rate schedules that are being processed
- Print information about the work order or rate schedule, such as the routing, parts list, sales order text, and so on
- 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 the versions of the associated programs that you want to access
- Create parts lists based on prior revision levels

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 can 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 You use the Order Processing program to process assembly inclusion rules in order to generate a parts list and routing instructions, if the parts list and routing instructions do not already exist.

The assembly inclusion rules are defined in the Base Configurator system. The P assembly inclusion rule is used to put component parts on the sales order and work order, while the Q assembly inclusion rule is used to put component parts on the work order only. The R assembly inclusion rule is used to create the routing instructions for the work order.

When a sales order is entered for a configured item, then the P assembly inclusion rules perform the following functions:

- Prints components as separate line items on the sales order
- Displays different levels for configured components in the Sales Order Entry program (P4210)

Running the Order Processing program generates a parts list for a configured item by performing the following:

- Uses data from the Sales Order Detail File table (F4211) that is generated from the P assembly inclusion rule in the Sales Order Entry program to create records in the Work Order Parts List table (F3111)
- Processes Q assembly inclusion rules to write additional components to the Work Order Parts List table

In the process, the system generates a routing by processing the R assembly inclusion rule.

The system uses the Issue Type Code and Operations Sequence Number fields from the Assembly Inclusions Rules table (F3293).

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

When you create a work order for a kit during sales order entry, the system can build the parent item and stock it in inventory after you process and complete the work order. When you create the work order, the system subtracts the components from the on-hand quantity in inventory. After you complete the work order, the system adds the parent item to the on-hand quantity in inventory.

You must specify line type T (Text) for sales orders in the Order Processing program 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 again subtract components from on-hand quantity in inventory 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 whether you want to print a consolidated pick list for multiple work orders, or individual pick lists for each work order.

Before You Begin

- ❑ Create a version of the Order Processing program (R31410) with the appropriate processing option settings.
- ❑ Set up valid work center locations. See *Setting up Work Centers* in the *Shop Floor Management Guide*.
- ❑ Set up a valid routing with appropriate line and item relationship information.
- ❑ Use the processing options to initiate Warehouse Management system integration, if applicable.

Running Order Processing

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

When you run the Order Processing program (R31410), the system creates the planned variance in the Work Order Variance Tag - Needed for upgrade 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 the Order Processing program, 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 that is 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 generate a parts list that includes lot-controlled components, the system hard-commits the components from the work center location where lots with quantities exist. If the lot quantity is not sufficient, the parts list line is split.

When you run the Order Processing program, 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 for 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 the Order Processing program, you set the Preflush Items processing option to issue only items identified as preflushed items or to preflush all items.

Use a processing option to print a consolidated parts list that provides you with a means to pick inventory needed for a number of work orders or rate schedules. 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 on a separate line each occurrence of an item that is in a different location, lot, or unit of measure.

When you run the Order Processing program, 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 the Warehouse Control option for the branch/plant 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:

- Generate a parts list and routing instructions
 - Update the parts list and routing instructions when quantities and dates change
-

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 how the system verifies effectivity and to specify the default header status code to use.

1. Work Order Effectivity Date

1 = Work Order Date

Blank = Work Order Start 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 a shortage exists
- Uses prior revision levels to build the parts list
- Preflushes issues only or issues all items
- Uses commitment processing as specified in the Manufacturing Constants program (P3009)

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 a the parts list.

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

7. Phantom Operation Sequence Number

1 = Use the phantom's (parent) operation sequence number.

Blank = Use components' operation sequence number

Use this processing option to specify how the system displays operation sequence numbers for components of a phantom item. Valid values are:

Blank

The system displays the operation sequence number of the component.

1

The system displays the operation sequence number of the phantom item.

Routing Tab

Use these processing options to specify the default values that the system uses for the unit of measure, document type, line type beginning status, and so on.

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.

8. Back Scheduling Queue and Move 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 backchedules queue hours as a percentage of the resource units per day.

1

The system backchedules queue hours as a percentage of the work hours per day.

9. Queue and Move Hours

1 = Default Queue and Move Hours from Work Center.

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

Use this processing option to specify whether the system enters queue hours and move hours in the Work Order Routing program (P3112) from the work center when the queue hours and move hours are blank or zero in the standard routing from the Work With Routing Master program (P3003). Valid values are:

Blank

If queue hours and move hours are blank or zero in the standard routing, do not enter queue hours and move hours from the work center into the work order routing.

1

If queue hours and move hours are blank or zero in the standard routing enter the queue hours and move hours from the work center into the work order routing.

2

Enter queue hours and move hours from the the work center into the work order routing only if a routing step or instruction has been manually added to the detail area of the work order routing.

10. Override Number of Employees/Machines to '1'

1 = Override No. of Employees/Machines to '1'

Blank = Use existing No. of Employees/Machines

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, whether it prints associated information.

When you turn on the Warehouse Management picking interface, the report displays the value 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

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.

When you turn on the Warehouse Management picking interface, the report displays the value 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.

6. Configurator Generic Text

1 = Print Configurator Generic Text

Blank = Do not print Configurator Generic 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 verifies 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:

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. Test Results Worksheet (R37470)

Use this processing option to specify which version of the Test Results Worksheet program (R37470) that the system uses. If you leave this processing option blank, the system uses version ZJDE0001. The version specifies how the program displays information.

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 File 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.

Attaching Supplementary Information

Instead of using the Order Processing program (R31410) to attach parts lists and routing instructions to work orders and rate schedules, you can also accomplish this task interactively. You can also attach co-products and by-products, as well as intermediate items, to process work orders. Finally, you can also assign serial numbers.

Note

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

Attaching a Parts List Interactively

After you enter a work order header, you attach a parts list to it. You can either manually enter a custom parts list or copy a parts list from a bill of material or 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 when existing information exists that you want to copy.

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 the Work Order Parts List program (P3111) 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 the Manufacturing Constants program (P3009)
- Commit using the commitment control set in the Manufacturing Constants program, but use substitutes for shortages
- Commit using the commitment control set in the Manufacturing Constants program, but use substitutes when the quantity available can compensate for 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.

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.

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 recreate the parts list, and the items are in the warehouse, the following two actions can occur:

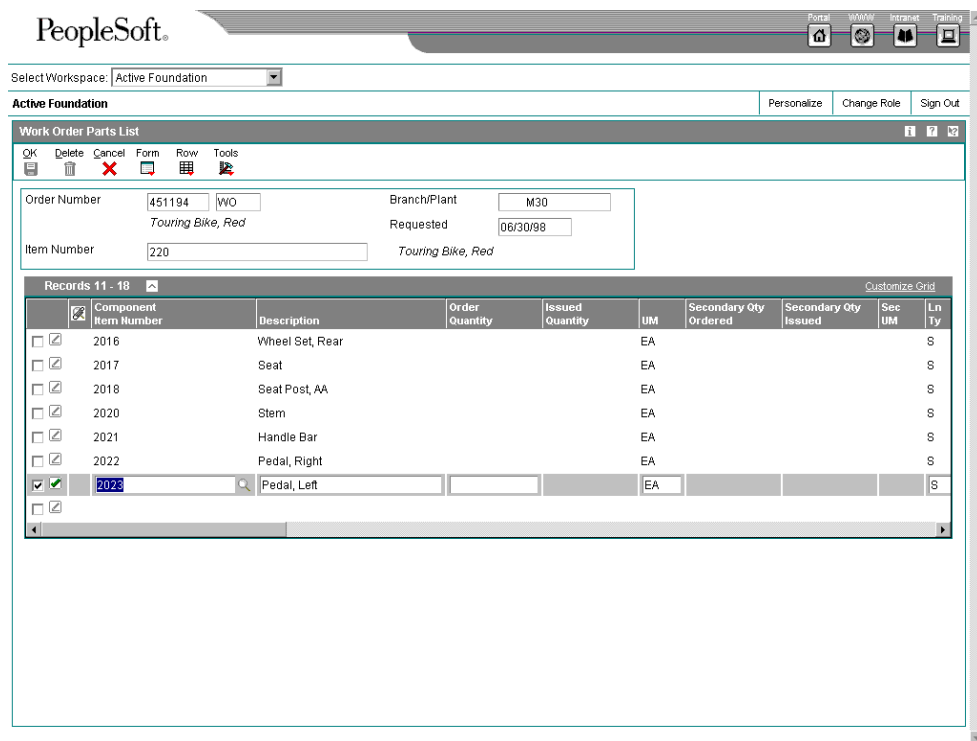
- The Work Order Print program (R31415) prints In Warehouse for all items with the correct material status code.
- The Order Processing program (R31410) prints a message indicating that a warehouse pick request already exists. The system does not generate a parts list.

► To enter a custom 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, complete the following fields, as needed:
 - 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
 - Cmp Rev
 - F V
 - Component Item Number
4. To add the parts list to the work order header, click OK.
 5. On Work With Manufacturing Work Orders, choose Parts List from the Row menu to review the parts list.



► **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.

The screenshot shows a 'Copy Screen' dialog box in the PeopleSoft application. The dialog box has a title bar with 'Copy Screen' and buttons for 'OK', 'Cancel', and 'Tools'. Inside the dialog, there are two input fields: 'Item Number' with the value '220' and a search icon, and 'Branch' with the value 'M30'. The background shows the PeopleSoft interface with 'Active Foundation' selected in the workspace dropdown and navigation links for 'Personalize', 'Change Role', and 'Sign Out'.

4. On Copy Screen, complete the following fields and click OK:
 - Branch/Plant
 - Item Number
5. On Work Order Parts List, review the components copied from the bill of material.
6. Click OK.

► **To copy a parts list 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 the work order to which you want to attach a parts list:
 - 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 from WO on the Form menu.

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 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.

Note

You cannot access the Substitute Availability program (P3111S), unless a quantity exists for the substitute item.

-
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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation

Select Multiple Locations

OK Find Cancel Row Tools

Line Number Branch/Plant

Item Number *Cro-Moly Frame*

Total Selected Total Secondary Selected

Quantity Under Secondary Quantity Over

Units Ordered EA Secondary Ordered

Location

Memo Lot 1

Memo Lot 2

From Lot

To Lot

Quantity	Secondary Quantity	Location	Lot / Serial	Branch Plant	Available	UM	Secondary Available	Secondary UM	Based On Date
167				M30	0	EA			

4. On Select Multiple Locations, complete the following fields:
 - Quantity
 - Location
 - Lot / Serial
 - Branch/Plant
5. Click OK.

Note

You can specify more than one commitment location for the item. However, if you select a location other than the primary location that is specified on the parts list, the system hard-commits the item.

See Also

- ❑ *Parts List and Routing* in the *Product Costing and Manufacturing Accounting Guide* for information about work order costs
- ❑ *Defining the Commitment Rules* in the *Shop Floor Management Guide* for information about commitment control and substituting items

Processing Options for Work Order Parts List (P3111)

Edits Tab

These processing options control whether you are able to attach a parts list to a prior revision level of the bill of material and whether you can select components for the parts list.

1. Parts List at Prior Revision Levels

Use this processing option to specify whether the program allows you to attach a parts list to prior revision levels of the bill of material for the parent item. Valid values are:

Blank

Do not allow the attachment of a parts list at prior revision levels.

1

Allow the attachment of a parts list at prior revision levels.

2. Select Components for Parts List

Use this processing option to specify whether the system allows you to choose components to be included on the parts list when you copy a work order. If you leave this processing option blank, the system disables the Row menu and includes all components on the parts list. Valid values are:

Blank

Include all components on the parts list.

1

Allow the ability to choose specific components to be included on the parts list.

Process Tab

These processing options control whether the system generates a routing when you create a parts list and whether the system copies component text. They also control substitute and commitment processing.

1. Routings

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

Blank

Do not generate routings when a parts list is created for a work order.

1

Generate routings when a parts list is created for a work order.

2. Substitute Processing Method

blank = Substitute processing will not be done.

1 = Use substitutes for shortages.

2 = Display the Substitute Availability Window when substitute quantity can cover the shortage.

Use this processing option to specify the substitute processing method that the system uses when attaching a parts list to a work order. Valid values are:

Blank

Do not use substitutes for shortages.

1

Use substitutes for shortages.

2

Display the Substitute Availability form when substitute quantity can cover the shortage.

3. Commitment Processing

blank = Commitments will be processed per Commitment Control in Manufacturing Constants (F3009).

1 = Bypass commitment processing.

Use this processing option to specify whether the system generates component commitments (based on commitment control settings stored in the Job Shop Manufacturing Constants table (F3009)), when the parts list is attached to the work order, or whether the the system bypasses commitment processing. Valid values are:

Blank

Use commitment control settings in the Job Shop Manufacturing Constants table (F3009).

1

Bypass commitment processing.

4. Component Generic Text

blank = Do not copy the component's generic text

1 = Copy the component's generic text

Use this processing option to copy the text attachment for a component line item to a work order parts list. Valid values are:

Blank

Do not copy the component's text attachment to a work order parts list.

1

Copy the component's text attachment to a work order parts list.

5. Phantom Operation Sequence Number

blank = Use components' operation sequence number.

1 = Use the phantom's (parent) operation sequence number.

Use this processing option to specify how the system displays operation sequence numbers for components of a phantom item. Valid values are:

Blank

The system displays the operation sequence number of the component.

1

The system displays the operation sequence number of the phantom item.

Warehousing Tab

These processing options control the integration with Warehouse Management, if you use this system.

1. Request Process Mode

blank = Do not generate a pick request

1 = Generate request only

2 = Generate request and process using subsystem

Use this processing option to specify whether the system generates a warehouse pick request for the items on the parts list.

Note: To use this processing option, all warehouse setup must be complete and

warehouse control must be turned on in the Branch/Plant Constants program (P41001).

Valid values are:

Blank

Do not generate a pick request.

1

Generate a pick request only.

2

Generate a pick request and process using subsystem.

2. Location Selection Version

Use this processing option to specify the version of the Location Selection Driver program (R46171) that the system uses. If the Request Process Mode processing option is set to 2, you should enter a version here. If you leave this processing option blank, the system uses version ZJDE0007 of the Location Selection Driver program. The version controls how the Location Selection Driver program displays information.

3. Default Staging Location

Use this processing option to enter the default staging location for releasing warehouse goods. When the Request Process Mode processing option is set to generate pick requests, the pick requests are staged at the location you enter here.

4. Check Default Staging Location for Availability

blank = Do not check staging location for availability.

1 = Check staging location for availability.

Use this processing option to specify whether the system verifies part availability in the default staging location. If the part is available at the staging location, the system does not generate a request for the part.

Note: This processing option applies to parts with no work center location assigned.

Valid values are:

Blank

Do not verify part availability in the default staging location.

1

Verify part availability in the default staging location.

Versions Tab

These processing options control the version that the system uses when you call the following programs from the Work Order Parts List program (P3111):

1. Work Order Routings - P3112 (ZJDE0001)

Use this processing option to specify the version of the Work Order Routing program (P3112) to use when a routing list is automatically attached to a parts list. The version controls how the Work Order Routing program displays information. If you leave this processing option blank, the system uses version ZJDE0001 of the Work Order Routing program.

2. Work Order Inventory Issues - P31113 (ZJDE0001)

Use this processing option to specify the version that the system uses when you choose the Work Order Inventory Issues program (P31113) from the row menu of the Work Order Parts List form. If you leave this processing option blank, the system uses version ZJDE0001 of the Work Order Inventory Issues program. The version controls how the Work Order Inventory Issues program displays information.

3. Purchase Order Entry - P4310 (ZJDE0001)

Use this processing option to specify the version that the system uses when you choose the Purchase Orders program (P4310) from the row menu of the Work Order Parts List form. If you leave this processing option blank, the system uses version ZJDE0001 of the Purchase Orders program (P4310). The version controls how the Purchase Orders program displays information.

4. Configured Item Specifications - P32942 (ZJDE0001)

Use this processing option to specify the version of the Configured Item Specifications program (P32942) that the system uses when generating a purchase order. If you leave this processing option blank, the system uses version ZJDE0001.

5. Supply and Demand Inquiry - P4021 (ZJDE0003)

Use this processing option to specify the version that the system uses when you choose the Supply and Demand Inquiry program (P4021) from the row menu of the Work Order Parts List form. If you leave this processing option blank, the system uses version ZJDE0003 of the Supply and Demand Inquiry program. The version controls how the Supply and Demand Inquiry program displays information.

Export Tab

These processing option control the transaction type that the system uses for export processing and for the Supply Chain Planning and Scheduling integration.

1. Export Transaction Type

Use this processing option to specify the transaction type that the system uses for export processing or for supply chain scheduling and planning. Transaction type is a user defined code (00/TT). Enter the transaction type to use as the default value. Blank is a valid value if you do not want to use export processing.

What You Should Know About Processing Options for P3111

To access these processing options, use the Interactive Versions program (P983051). Choose Interactive Versions from the System Administration Tools 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

In addition to attaching routing instructions to work order headers in batch, you can also enter routing instructions interactively or manually, that is, you can create a custom set of routing instructions or revise them manually after they have already been attached to the work order header. For example, you might have a special routing for a certain engineering release phase in which you want to test a new process step. As with the parts list, you have the option of copying information from an existing routing for an item or from another work order.

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. When no routing instructions are 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. You use the Enter/Change Routing program (P3003) to add an outside operations step. To define a routing step as an outside operation, you must enter a supplier and cost type and enter Y in the PO (Y/N) field. When you run the Order Processing batch program (R31410), the system generates a purchase order. You can also enter the purchase order interactively by calling the Outside Operation Revisions program (P3161) from the Work Order Routing form (W3112E).

Caution

When you create purchase orders for outside operations, consider the following:

- When you change the status of a routing instruction, the system can create duplicate purchase orders for that operation when you run the Order Processing program for that work order again.
- When you enter a purchase order interactively and then run the Order Processing program, the system creates duplicate purchase orders as well.
- When you delete an outside operation with an associated purchase order, the system deletes the purchase order when the original status of the operation remains unchanged. When the system deletes the purchase order, it updates the supplier instructions with the quantity of the value of the purchase order for the primary location and the open amount.

Note

If you set up a work center as a valid location, the system verifies that the work center is available before you use Warehouse Management.

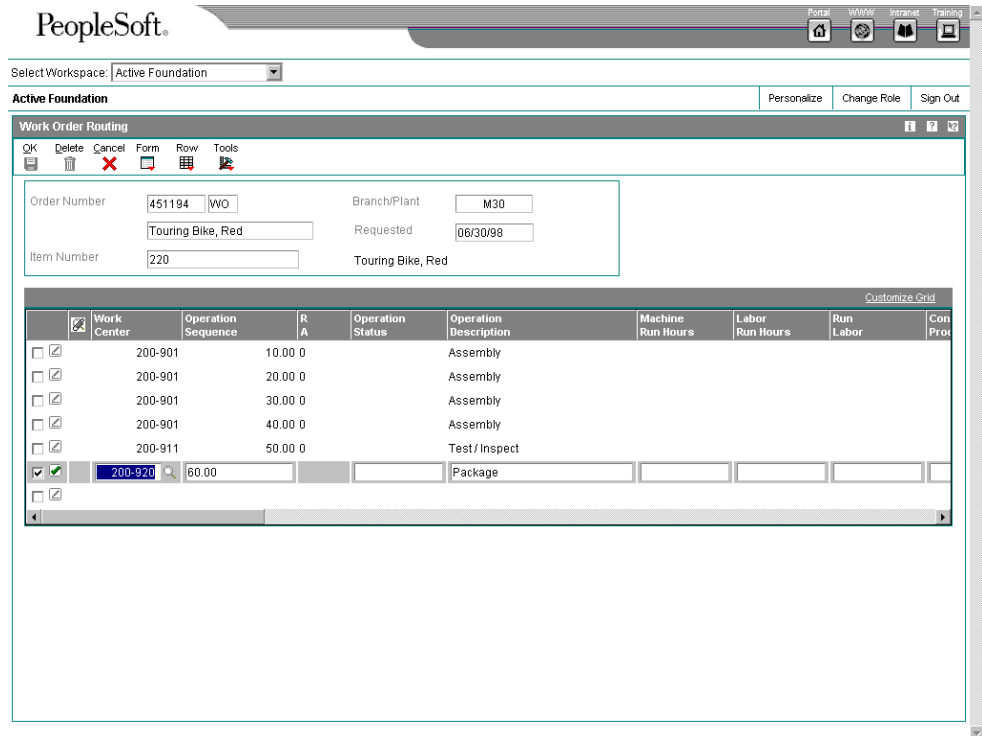
Before You Begin

- ❑ Verify that a record for the parent item exists in the Item Master (F4101) and Item Branch (P41026) tables.
- ❑ Enter the document type, line type, and status code for the purchase order in the processing options for the Order Processing program (R31410).

► To copy a routing instruction 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.



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

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

- Operation Type
 - Instruction Number
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 about the routing instructions.
 8. On Work Order Routing, 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' form in PeopleSoft. The form is titled 'Routing Details' and is part of the 'Active Foundation' workspace. It contains several sections for data entry:

- Order Information:** Order Number (451194), Branch/Plant (M30), Parent Item (220), and Requested (Touring Bike, Red).
- Work Center Information:** Work Center (200-920), Op Seq No (60.00), and Oper Desc (Package).
- Hours Information:** Labor, Move, Machine, Queue, and Setup.
- Pay Point Information:** Pay Point (B), Oper Type, Time Basis (U), and Rel PO No.
- Other Information:** Crew Size (2.0), Req Date, Opr Yld % (100.00), Start Date, Cum Yld % (100.00), Equip No, Overlap %, and Instr No.

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

► **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, choose Copy By WO from the Form menu.

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. On Work Order Routing, make any final corrections to the routing instructions and click OK.

See Also

- *Parts List and Routing* in the *Product Costing and Manufacturing Accounting Guide* for information about the work order costs

► **To add a purchase order for an outside operation**

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 work order, and then choose Routing from the Row menu.
3. On Work Order Routing, choose the outside operation routing step for which you want to create a purchase order, and then choose Outside Operations from the Row menu.
4. On Outside Operation Detail, the system completes the following fields with routing information:
 - Order Number/Type
 - WO Description
 - Branch/Plant
 - Item Number
 - Operations Sequence Number
5. Complete the following fields:
 - Vendor
 - Cost Type
6. Choose Generate PO from the Form menu.

The system generates a purchase order number that appears in the Related PO Number field.
7. Click OK.
8. On Work Order Routing, click OK.

Note

You can also cancel purchase orders in this program by choosing Cancel PO from the Form menu.

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

These processing options control 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.

4. Override Number of Employees/Machines to '1'

Blank = Use Existing No. of Employees/Machines

1 = Override No. of Employees/Machines to '1'

Export Tab

These processing option control the transaction type 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

These processing options control the version the system uses when you call the following programs from the Work Order Routing List program:

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.

2. Work With Activity Based Costing Workbench (P1640)

Blank = ZJDE0001

3. Resource Assignment (P48331)

Blank = ZJDE0001

Use this processing option to specify which version of the Resource Assignment program(P48331) the system uses. If you leave this processing option blank, the system uses version ZJDE0001.

4. Outside Operation Revisions (P3161)

Blank = ZJDE0001

Use this processing option to specify which version of the Outside Operation Revisions program (P3161) the Work Order Routing program (P3112) calls. The system uses this program to generate and maintain purchase orders for outside operations. If you leave this processing option blank, the system uses version ZJDE0001.

What You Should Know About Processing Options for P3112

To access these processing options, use the Interactive Versions program (P983051). Choose Interactive Versions from the System Administration Tools 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. Co-products and by-products identify the items that result from the process, whether they are planned or unplanned.

► **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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work Order Process Resource Revisions

OK Delete Cancel Form Row Tools

Co/By Product Revisions

Order Number 451469 WO Lubricant Process

Item Number 5000 Lubricant Process

Display All Operations

<input type="checkbox"/>	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		

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.

► 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Intermediate Product Revisions

Order Number/Type: 451469 WVO
Item Number: 5000 Lubricant Process

Item Number	Description	Quantity Ordered	UM	Oper Seq#	Remark	Stocking Type	Compon 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 or 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. You can also assign serial numbers to specific assemblies at the time of work order completions by choosing Lot SN Association from the Form menu on the Serial Number Revisions form (W3105B). 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 is the primary unit of measure. You cannot enter more serial numbers than the quantity on the work order.

Note

You can delete a serial number only when the system detects no activity for the number.

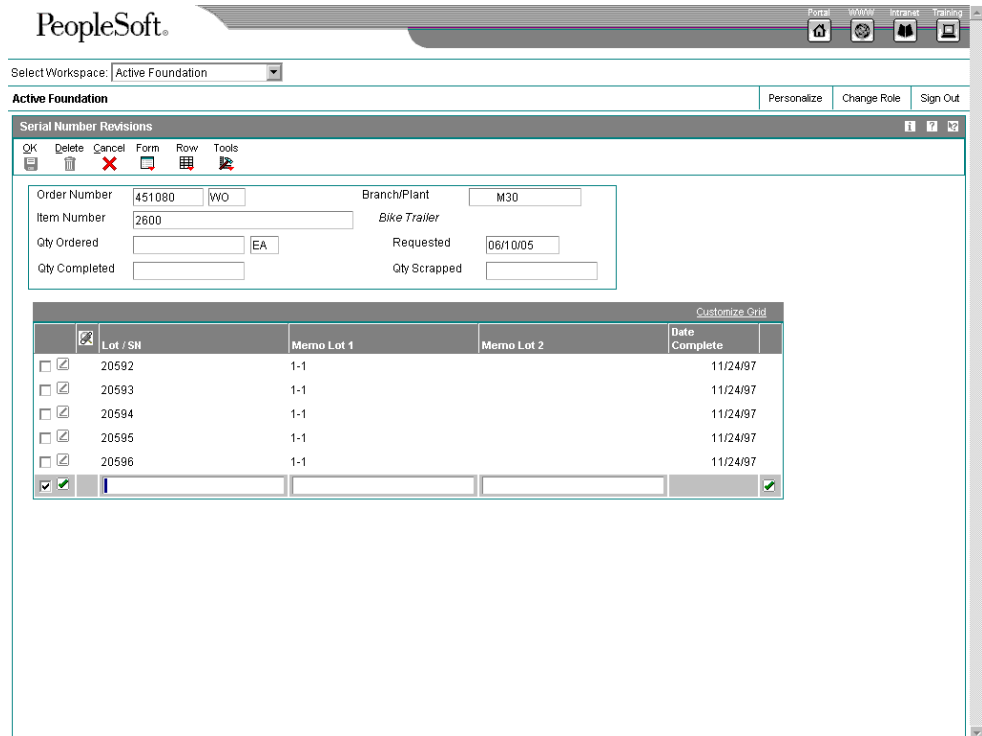
Before You Begin

- ❑ 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 Guide* for details about the Item Master Information form.

► To assign serial numbers

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 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.
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.



5. Review the following fields and click OK:

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

Note

You can also access the Assembly Serial Numbers program (P3105) from the menu (G3111). In this case, however, you can use it only to locate existing serial numbers, but not to update or add serial numbers.

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 that 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 in the Branch/Plants Constants program (P41001) to allow different types of items in the same lot. When 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 in 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. If you do not have a lot number for the end item by the time that you issue component materials, the system uses only the work order number to link the components to the end item.

The system allows you to define multiple dates that are relevant for lot processing. These dates can be used to determine when lot-controlled items become available. For each lot containing a lot-controlled item, you can define the following availability dates based on the information that is set up for the item in the Item Master (P4101) and the Item Branch/Plant (P41026) programs:

- Lot expiration date
- On hand date
- Best before date
- Sell by date
- Lot effectivity date
- Based on date
- User lot dates 1 through 5

You can use the lot expiration date, the sell by date, and the best before date, as well as the user-defined lot dates, to define the commitment date method.

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.

By using the lot effectivity date, you can define a lot to become available for use at a future date. You can calculate the effective date for the lot manually or automatically when the lot is created and becomes on hand. You can use the Manufacturing Effective Days field on the Item Master Revisions or the Item Branch/Plant Info form to define the number of days before which a lot will be effective.

When you set the appropriate processing options, J.D. Edwards manufacturing planning systems perform the following actions:

- 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 use one of the following methods:

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

See Also

- The following chapters in the *Inventory Management Guide* for further information about lot processing:
 - *Defining System Constants* for information about allowing different types of items in the same lot
 - *Setting Up Dates for Lots* for information about defining lot availability dates
 - *Choosing the Calculation Method for Lot Expiration Dates* for information about different methods to calculate lot expiration dates
 - *Defining Effective Dates for Future Availability* for information about marking lots for future availability

Creating Lots

You can create lots automatically or manually. Lots are generated automatically when you perform any of the following tasks:

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

You can create lots manually, by accessing the Lot Master Revisions program (P4108) either directly from the menu or during work order entry from the Work Order Details form (W48013A). Each time that you create a lot, the system adds a record to the Lot Master table (F4108).

The actual grade and potency of a lot is defined in the Lot Master table. You also use the Lot Master Revisions 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 includes the status and availability dates for the lot. You can also define grade and potency for a lot and 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.

See Also

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

Lot Status

The status of a lot 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.

You set up lot status codes in the user defined code table 41/L by using the Lot Status Code Revisions program (P0004A). You assign status codes to different lot locations in the Lot Master Revisions program (P4108). You can assign different status codes to a single lot based on the different locations in which the lot resides. When assigning a lot status, you can use the status code from the lot's record in the Lot Master table (F4108) or the default status from the Item Branch File table (F4102) if no lot status exists.

You can run the Lot Status Update program (R41082) 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. 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.
- Set up a new location for an item using the Item Branch/Plant program (P41026).

You can assign lot statuses to different lot locations using the Location Lot Status Update form from the Lot Master Revisions 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 that reside in locations that are on hold depends on how you set the processing options.

Use the following tables to determine the lot status for newly created records in the Lot Master table and the Item Location File table (F4108).

- 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.
- 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:
- The default lot status from the From location
 - If a lot number exists, the lot status from the Lot Master record
 - If no lot number exists, the default lot status from the Item Branch File table

See Also

- *Assigning Lot Status Codes* in the *Inventory Management Guide* for the steps to set up lot status codes and assign them to different lot locations

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.

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

In the J.D. Edwards systems, grade and potency are mutually exclusive. You can use only 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. 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 of the standard value, but still acceptable for your use. A range 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 unavailable. 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.

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 that are outside of the range do not appear as available or on-hand in material inquiries for Shop Floor Management. You can order only a certain grade or potency of an item. Sales order and purchase order systems accommodate grade and potency standards and ranges.

Grade and Potency Control

You set up the following grade- or potency-control fields on the Grade and Potency tab on the Additional System Information form in the Item Master program (P4101). 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 that are normally found in an item. The value that you enter provides the default for several forms in the 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 that you enter 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 as follows:

- Define the user defined codes in the user defined code table 40/LG for the grades that you will use.
- Define the user defined codes for the potent units of measure in the user defined code table 00/UM. For each potent unit of measure that you define, you must type P in the second space of the Special Handling Code field on the User Defined Codes form.
- Define a conversion for each potent unit of measure to a physical unit of measure in the Standard Units of Measure program (P41003). For example, 100 gallons of a solution at 80 percent potency equals 80 potent gallons, and 80 potent gallons of a solution at 80 percent equals 100 gallons.

See Also

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

Lot and Serial Control Items

Grade- and potency-controlled items must be lot-controlled. Use the Item Branch/Plant program (P41026) to identify an item as a lot- or serial-controlled item by entering 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 (P48013) and Order Processing (R31410) 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 to be eligible for commitments. Any remaining quantities are committed to the primary location.

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 reserves designated inventory in a specific location for a particular work order. A soft commitment allows you to commit the inventory at the primary location to a work order without designated inventory from a specific location. This inventory can be used for another work order. Soft commitments also enable you to compare the 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 when you run the Order Processing program (R31410).

If, at any time, the location that appears 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 Inventory Issues program (P31113) relieves commitments. When you issue or reverse material that you committed to a secondary location when you entered the parts list line, the system performs a hard commitment for this material. 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 commitment date method, the lot expiration date method and the lot effectivity date, if applicable, as well as 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 for inventory that you need for the order in a certain sequence. For example, you might want to search for inventory with a specific lot number, grade, or potency.

When you commit lot-controlled component quantities at the work center location, the system searches for available quantities in the lots that are available at the work center location and commits quantities from those lots based on the commitment method. When you use more than one lot, the parts list line is split. If more components are needed than are available, the system commits the remaining quantity from the primary location. This process applies only when you do not use the Warehouse Management system.

Use the following table to identify the processing options available for both the Enter/Change Order (P48013) and Order Processing programs.

- Enter/Change Order** Using the Enter/Change Order program, you can automatically generate the following:
- 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 the start date for effectivity checking. You can set up the system to perform the following tasks automatically:
- Use substitutes for items that are out of stock and for blanket order release processing
 - Generate the parts list, routing instructions, or both

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 unless you set the processing option to bypass inventory commitments.

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 commitment date method, as well as grade or potency. You repost commitments when you need to clear commitments and reassign quantities to other work orders.

When creating commitments, you can activate a processing option to verify whether substitutes exist for an item. To use substitutes, you must use a hard commitment at the creation of a work order or at pick time.

You define the method that the system uses when creating a commitment. Using the Item Branch/Plant program (P41026), you can define the commitment method by location, lot number, or date. If you define commitments by date, you specify the commitment date method, as well as the lot expiration date method, if applicable, on the Lot Processing tab. The system calculates these dates based on the default days information that you define in the Item Master (P4101) and Item Branch/Plant programs and stores them in the Lot Master table (F4108).

You use the Manufacturing Constants program (P3009) to define the commitment control method and type of commitment for the work order. Commitment control determines how the system commits inventory to a work order. For example, commitment control determines whether the system can cross branch boundaries to fill requirements. In addition, you can specify whether the commitment is soft or hard. Soft commitments can become hard commitments in certain circumstances, such as when inventory is relieved.

► 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 in the detail area and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Item/Branch Plant Info.

Branch/Plant: M30

Item Number: 1001 Bike Rack - Trunk Mount

Basic Branch/Plant Data Additional Info Lot Processing

Stocking Type: Purchased inc. Raw Material

G/L Class: IN30 Inventory

Line Type: S Stock Inventory Item

Planner Number: 8444 O'Malley, James

Buyer Number: 8444 O'Malley, James

Supplier Number: 4343 Parts Emporium

Print Message:

Commitment Method: 1 Location With Most Quantity

Country of Origin: USA

Sales Taxable: Ln is subj to applicable

Purchasing Taxable: Ln is subj to applicable

Check Availability

Backorders Allowed

3. On Item/Branch Plant Info., complete the following field:
 - Commitment Method
4. If you define the commitment method by date, choose the Lot Processing tab and complete the following field:
 - Commitment Date Method
5. If you specify the lot expiration date as the commitment date method, complete the following field:
 - Lot Expiration Date Method
6. Click OK.

Processing Options for Item Branch (P41026)

Process Tab

These processing options allow you to specify whether the system displays additional Item Branch forms when you perform an add or change on the Item Branch/Plant Info. form.

1. Category Codes

Blank = Do not display screen

1 = Display screen

Use this processing option to specify whether the Category Codes form appears when you are adding or changing information. Valid values are:

Blank

Do not display the form.

1

Display the form.

2. Quantities

Blank = Do not display screen

1 = Display screen

Use this processing option to specify whether the system displays the Quantities form when you add or change information. Valid values are:

Blank

Do not display the form.

1

Display the form.

3. Additional System Information

Blank = Do not display screen

1 = Display screen

Use this processing option to specify whether the system displays the Additional System Information form when you add or change information. Valid values are:

Blank

Do not display the form.

1

Display the form.

4. Item Profile Revisions

Blank = Do not display screen

1 = Display screen

Use this processing option to specify whether the system displays the Item Profile Revisions form when you add or change information. Valid values are:

Blank

Do not display the form.

1

Display the form.

5. Cost Revisions

Blank = Do not display screen

1 = Display screen

Use this processing option to indicate whether the system displays the Cost Revisions form when you add or change information. Valid values are:

Blank

Do not display the form.

1

Display the form.

6. Price Revisions

Blank = Do not display screen

1 = Display screen

Use this processing option to specify whether the system displays the Price Revisions form when you add or change information. Valid values are:

Blank

Do not display the form.

1

Display the form.

7. Unit of Measure

Blank = Do not display screen

1 = Display Unit of Measure screen

Use this processing option to specify whether the system displays the Unit of Measure form when the Unit of Measure conversions are at the branch level and you are adding or changing information. Valid values are:

Blank

Do not display the form.

1

Display the form.

Versions Tab

These processing options allow you to specify the versions for various programs that you access from the Item Branch program. Versions control how the system processes and displays information. Therefore, you might need to set the processing options to meet your specific needs.

1. Summary Availability (P41202)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you access the Item Availability program (P41202). If you leave this processing option blank, the system uses version ZJDE0001.

2. Item/Location Information (P41024)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you access the Location Revisions program (P41024). If you leave this processing option blank, the system uses version ZJDE0001.

Interop Tab

These processing options control whether the system performs outbound interoperability processing and whether the system creates a record of a transaction prior to changes to the transaction.

1. Transaction Type

Blank = No outbound interoperability processing

Use this processing option to define the type of document for which you want the system to search.

The transaction type is a user defined code (00/TT) that identifies the type of transaction, such as an invoice or a sales order. You can enter a transaction type or choose one from the Select User Define Code form. The system uses the transaction type as the default.

Note that if you leave this processing option blank, the system does not perform export processing.

2. Before/After Image Processing

Blank = Write only the after image

1 = Write the before and after image

Use this processing option to specify the point at which the system creates a record of a transaction. Valid values are:

Blank

Create a record of a transaction after changes.

1

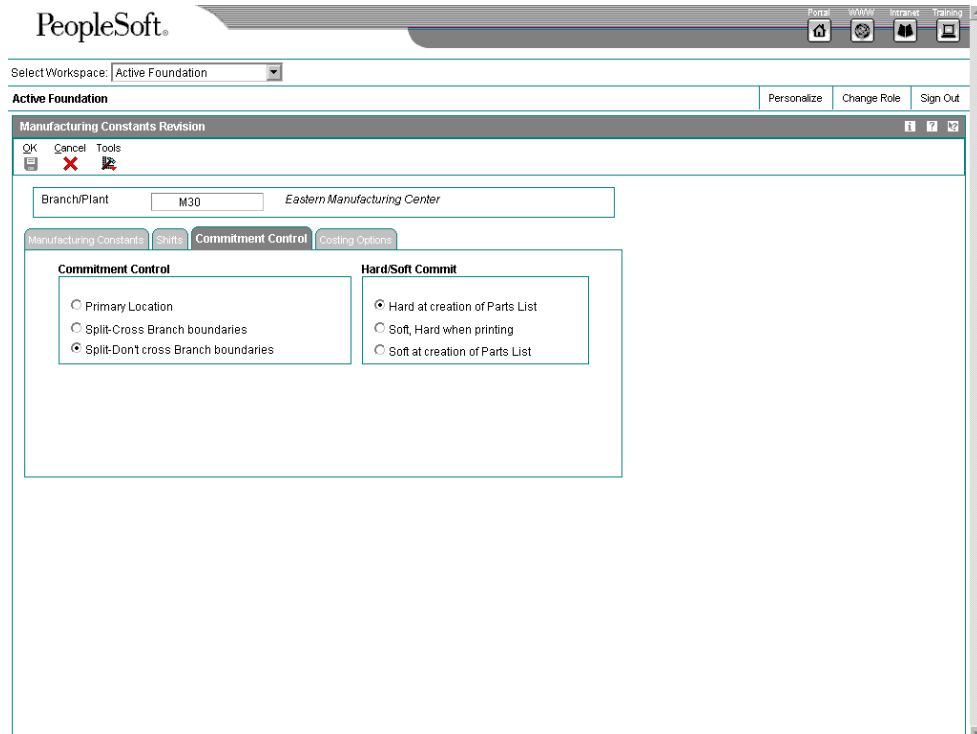
Create two records: one record before changes and one record after changes.

► **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 in the detail area and click Select.



- On Manufacturing Constants Revision, choose the Commitment Control tab and then choose one of the following options:

- Primary Location
- Split-Cross Branch boundaries
- Split-Don't cross Branch boundaries

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

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

- Choose one of the following options, and then click OK:

- Hard at creation of Parts List
- Soft, Hard when printing
- Soft at creation of Parts List

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

Defining Commitments at a Work Center Location

In order to commit inventory to be issued to a particular work order, you need to define the values that allow you to make the material available where and when it is needed. For this

purpose, you need to specify the work center for the routing instructions, as well as the issue location for the work center. You also specify the operation sequence at which each component is needed. If you work in a process manufacturing environment, you do not have a bill of material. Finally, you need to specify in the Manufacturing Constants program (P3009) which backflush option to use for the branch/plant.

► **To define the work center in the routing instructions for an item**

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

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

The screenshot shows the 'Enter Routing Information' window in PeopleSoft. The form contains the following fields:

- Item Number: 220
- Branch/Plant: M30
- Batch Quantity: [empty]
- As of Date: 08/27/03
- Line/Cell: [empty]
- Routing Type: M
- Item Rev: [empty]
- Drawing No: 200T
- Skip to Oper: [empty]

Below the form is a table of routing operations:

Work Center	Oper Seq#	Description	Run Labor	Run Machine	Setup Labor	Cons Prod	Queue Hours	Move Hours	Line/Cell	Effective From
<input checked="" type="checkbox"/>	200-901	10.00 Assembly	0.50	0.00	0.00	Cons	0.00			04/04/97
<input type="checkbox"/>	200-901	20.00 Assembly		0.25	0.00	0.00 Cons	0.00			04/04/97
<input type="checkbox"/>	200-901	30.00 Assembly		1.00	0.00	0.00 Cons	0.00			04/04/97
<input type="checkbox"/>	200-901	40.00 Assembly		1.00	0.00	0.00 Cons	0.00			04/04/97
<input type="checkbox"/>	200-911	50.00 Test / inspect		0.25	0.00	0.00 Cons	0.00			04/04/97
<input type="checkbox"/>	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:
 - Work Center
4. Complete the following optional field, if necessary:
 - Consuming Location
5. Click OK.

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

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

From the Daily PDM Discrete menu (G3011), choose Enter/Change 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 in the detail area and click Select.

PeopleSoft®

Select Workspace: Active Foundation

Active Foundation

Work Center Master Revisions

Work Center: 200-101 Branch/Plant: D30

Work Center Master

Dispatch Group: 200-100

Location - Issue:

Location Branch: D30

Calendar Name:

Work Center Type: 0

Crew Size: 1.0

Pay Point: 0

Number of Machines: 2

Prime Load: B

Number of Employees: 3

Critical W/C: 3

Resource Offset:

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

► **To assign a component to a routing operation**

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

1. On Work with Bill of Material, complete the following fields and click Find:
 - Branch/Plant
 - Item Number
2. Choose a record in the detail area and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Enter Bill of Material Information

OK Find Delete Cancel Form Row Report Tools

Parent Item: 220 Touring Bike, Red Branch/Plant: M30

Batch Quantity: EA

As of Date: 08/27/03 Type of Bill: M Oper Seq#: *

Drawing #: 200T Item Rev. Level: Skip to Line No. *

Records: 1 - 10 Customize Grid

<input type="checkbox"/>	<input type="checkbox"/>	Item Number	Description	Quantity	UOM	Active Ingr. Flag	F	V	Is	C	d	Stkg Typ	Ln Ty	Line No.	Oper Seq#	Eff. From
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2001	Cro-Moly Frame, Red	1	EA		V	U	M			S	S	10.00	10.00	04/01/03
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2006	Touring Fork	1	EA		V	U	P			S	S	20.00	20.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2007	Bottom Bracket	1	EA		V	U	P			S	S	30.00	30.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2008	Head Set	1	EA		V	U	P			S	S	40.00	40.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2009	Crank	2	EA		V	U	P			S	S	50.00	50.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2010	Chain Rings	1	EA		V	U	P			S	S	60.00	60.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2011	Chain, Std	1	EA		V	U	P			S	S	70.00	60.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2013	Shift Kit	1	EA		V	U	P			S	S	80.00	30.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2014	Brake Kit	1	EA		V	U	P			S	S	90.00	40.00	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2015	Wheel Set, Front	1	EA		V	U	P			S	S	100.00	60.00	

3. On Enter Bill of Material Information, complete the following field in the detail area and click OK:
 - Oper Seq#

Managing Commitments for Grade and Potency

When the system creates commitments for grade- and potency-controlled items, it moves the grade and potency range to the parts list. Only lots that are 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 through A03:

	Location	Expiration Date	Grade	On Hand	Commit
Primary					50
Secondary	9406220000	08/31	A01	50	50
Secondary	9406230000	08/15	A02	300	300
Secondary	9406240000	12/12	A03	400	400
Secondary	9406250000	09/01	A04	5	
Secondary	9406260000	09/01	A05	5000	

The system commits the quantities using the primary unit of measure. When the specified lots in the range have insufficient quantity to meet all of the commitments, the system commits the remainder to the primary location at standard grade or 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 percent. Also assume that the parts list requires 500 GP.

In the following example, only the equivalent of 470 potent gallons is 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 and 70 percent
Primary					43
Secondary	9406220000	80%	50	40	50
Secondary	9406230000	90%	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 for conversion purposes only. Potent units of measure are assumed to be 100 percent potent.

Also, a lot that consists of 100 potent units with a potency of 75 percent is the equivalent of 133.3333... physical gallons (100/.75). Companies that store inventory 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 not potent 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 the impotent primary unit of measure. You can correct this imbalance 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. 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

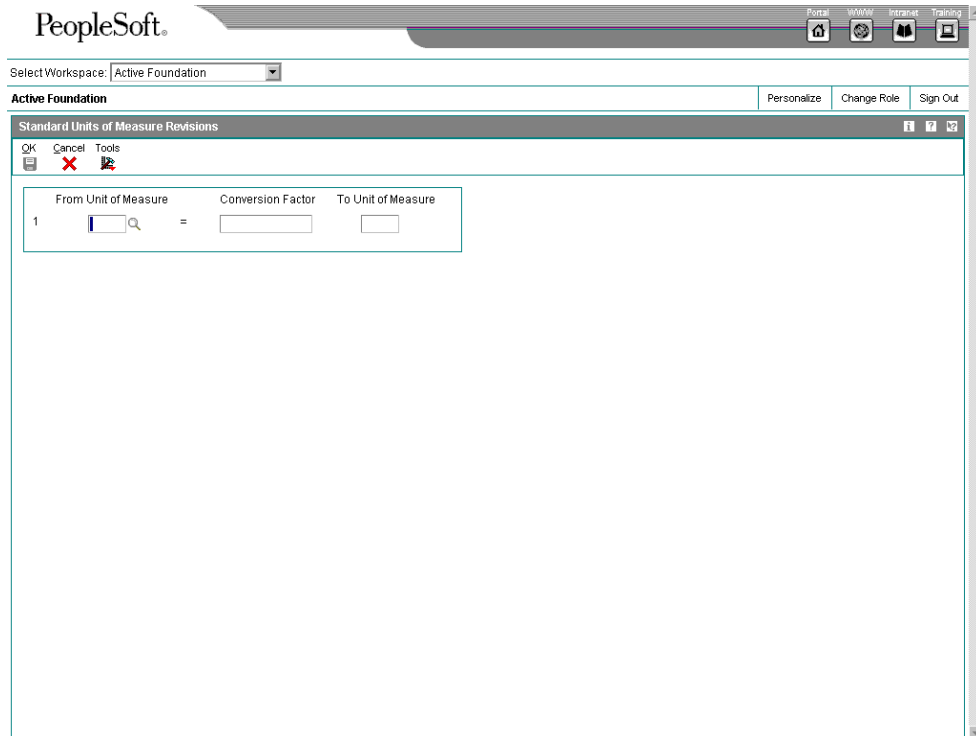
Before You Begin

- Set up potent units in UDC table 00/UM (Units of Measure).

► To convert units of measure for potent units

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

1. On the Work With Standard Units of Measure form, click Add.



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.

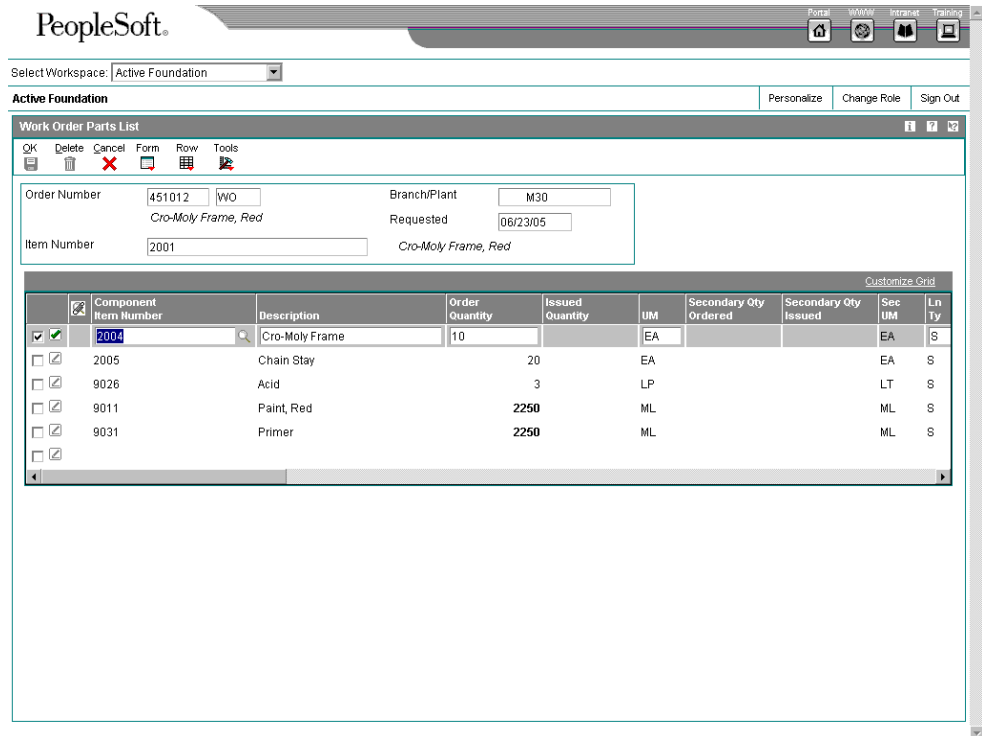
Managing Commitments for Grade- and Potency-Controlled Items

Use the Work Order Parts List form (W3111A) to specify the location and grade or potency for each applicable component on a work order.

► To manage commitments for grade- and potency-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.



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

- Issued Quantity
- Location
- Lot Serial Number
- Lot Grd
- Lot Potency
- From Potency
- Frm Grd
- Thr Grd

4. Click OK.

Reposting Commitments

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

After you set up commitments, run the Repost Open Quantities program (R3190) to perform the following tasks:

- Clear all values for the quantity and quantity committed in the Item Location File table (F41021).
- Repost the quantity value in the Item Branch File table (F4102) 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 File 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.

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

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 verify the availability of the parts that you need 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 use the bill of material, as well as the parts list, to review the materials that are available for completing the work order or rate schedule. 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. You can also enter purchase orders interactively by accessing the Outside Operation Revisions program (P3161) from the Work Order Routing form.

When material shortages exist, you can enter and review them using the Shortage Workbench program (P3118). You can also create shortage reports.

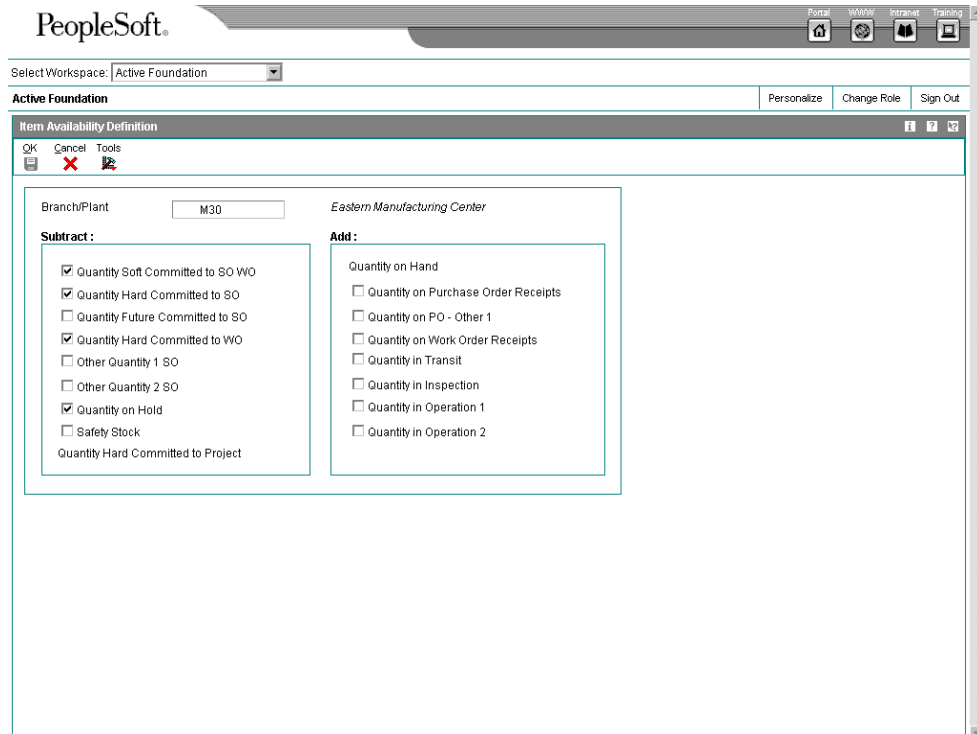
Defining Availability Calculations for a Branch

The system uses the quantities that are 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 the quantity in that field 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 Information

You can determine the availability of the parts that are required to make a certain quantity of a parent item before you create a work order or rate schedule. Use the Part Availability program (P30200) to determine the availability of the parts.

Before you release a work order or rate schedule to the shop floor, you can review the parts list for the work order to determine the availability of the parts that are required to make a certain quantity of a parent item. Use the Parts List Inquiry program (P3121) to determine the availability of a part.

When you specify a soft commitment for the part, the quantities that appear indicate the item's availability at all locations. When you specify 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 part availability

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

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

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Parts Availability - Multi Level Indented

Select Find Close Form Report View Row Tools

Branch M30

Parent Item 220 Touring Bike, Red

Requested Quantity EA

Quantity w/Shrink Type of Bill M

Revision Level As of Date 08/27/03 Skip to Line

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

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 Tab

These processing options control default settings for running this program. For example, you can use a processing option to specify the processing mode that the system uses and the bill of material time that appears.

1. Processing Mode

Use this processing option to specify how the system displays the information on which you inquiry. Choose from the following processing modes: simple inquiry, parts availability, or leadtime inquiry.

The simple inquiry mode displays the components of a bill of material.

The parts availability mode displays the components of a bill of material and the available quantities for those components. If you use this mode, specify whether you want the system to subtract safety stock from the quantity on hand and whether to display negative quantities using the Safety Stock and Negative Items processing options under the Select tab.

The leadtime inquiry mode displays actual and calculated leadtimes for an item. Actual leadtimes are derived from the leadtimes as updated in the Item Branch table by the Leadtime Rollup program. Calculated leadtimes are the number of days that you must start to manufacture a part prior to the date that the parent needs it. You can use this mode of processing to define leadtimes for an item at each routing instruction step or to compare the actual and calculated leadtimes. If you use this mode, specify whether you want the system to display the actual or calculated leadtimes in the Leadtime Values processing option under the Select tab.

Valid values are:

- 1 The system displays the simple inquiry mode.
- 2 The system displays the parts availability mode.
- 3 The system displays the leadtime inquiry mode.

If you leave this processing option blank, the system displays the simple inquiry mode.

2. Inquiry Mode

Use this processing option to specify the level of detail that you want the system to display. The single level mode displays the parent item and its components. The multilevel mode displays the parent item, its components, and the subassemblies of the components. The multilevel indented mode displays the parent item, its components, and the subassemblies of the components. In addition, it indents the subassemblies. Valid values are:

- 1 The system displays the single level mode.
- 2 The system displays the multilevel mode.
- 3 The system displays the multilevel indented mode.

If you leave this processing option blank, the system displays the multilevel indented mode.

3. Bill of Material Type

Use this processing option to specify the type of bill of material that the system uses as the default value in the Type of Bill field on the Work With Bill of Material form. Bill of material type is a user defined code (40/TB)

that designates the type of bill of material. Enter the bill of material type to use or choose it from the Select User Define Code form. If you leave this processing option blank, the system uses M for manufacturing bill of material.

4. Display Sequence

Use this processing option to specify how you want the system to sort information on the Work With Bill of Material form. You can choose to sequence the data by component line number or by operation sequence number. The component line number indicates the sequence of the components on a bill of material. The operation sequence number indicates the sequence of the fabrication or assembly steps in the manufacture of an item. Valid values are:

- 1 The system sorts by component line number.
- 2 The system sorts by operation sequence number.

If you leave this processing option blank, the system sorts the data by component line number.

Versions Tab

These processing options control which version the system uses when the following programs are called from the Part Availability program.

1. Bill Of Material Print (R30460)

Use this processing option to specify the version of the Bill of Material Print report that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Bill of Material Print report displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

2. ECO Workbench (P30225)

Use this processing option to specify the version that the system uses when you choose the Row exit to the ECO Workbench program from the Work With Bill of Material form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the ECO Workbench program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

3. ECO Header (P48020)

Use this processing option to specify the version of the ECO Header program that the system uses when you choose the Form exit to the Bill of Material Revisions program from the Work With Bill of Material. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the ECO Header program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

4. Bill of Material Revisions (P3002)

Use this processing option to specify the version that the system uses when you choose the Form exit to the Bill of Material Revisions program from the Work With Bill of Material form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Bill of Material Revisions program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

5. Item Master (P4101B)

Use this processing option to specify the version that the system uses when you choose the Form exit to the Item Master program from the Work With Bill of material form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Item Master program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

6. Process Inquiry (P30240)

Use this processing option to specify the version that the system uses when you choose the Form exit to the Process Inquiry program from the Work With Bill of Material form. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Process Inquiry program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

7. Work With Routing Master (P3003)

Use this processing option to specify the version of the Work With Routing Master program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Work With Routing Master program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

8. Item Availability (P41202)

Use this processing option to specify the version of the Item Availability program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Item Availability program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

9. Item Cross Reference (P4104)

Use this processing option to specify the version of the Item Cross Reference program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Item Cross Reference program displays information.

Therefore, you might need to set the processing option to a specific version to meet your needs.

10. Item Search (P41200)

Use this processing option to specify the version of the Item Search program that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 version.

Versions control how the Item Search program displays information. Therefore, you might need to set the processing option to a specific version to meet your needs.

Select Tab

These processing options control how certain values appear, based on the default selection for the Processing Mode processing option.

1. Safety Stock

Use this processing option to specify whether the system subtracts the safety stock from the quantity on hand. Use this processing option in conjunction with the Parts Availability mode in the Processing Mode processing option under the Defaults tab. Valid values are:

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

Use this processing option to specify whether the system displays negative amounts for the component quantities. Use this processing option in conjunction with the Parts Availability mode in the Processing Mode processing option under the Defaults tab. Valid values are:

Blank The system displays all amounts.

- 1 The system displays only negative amounts.
-
-

3. Leadtime Values

Use this processing option to specify whether the system displays the actual or calculated leadtime values. Use this processing option in conjunction with the Leadtime Inquiry mode in the Processing Mode processing option under the Defaults tab. Valid values are:

Blank The system displays the actual leadtime values from the Item Branch table (F4102).

- 1 The system displays the calculated leadtime values.
-

Process Tab

These processing options control how the system uses certain data in the program. For example, you can use a processing option to specify whether phantom or process item are included in the inquiry.

1. Phantom Items

Use this processing option to specify whether the system explodes the phantoms to the next level and omits the display of the phantom. A phantom is normally defined for engineering or manufacturing purposes. Phantoms allow common parts, that may or may not be assembled, to be grouped in a bill of material structure. When viewing the bill of material, you may want to display only the subassemblies and raw material. Valid values are:

Blank The system omits the phantom items from the inquiry and displays only the subassemblies and raw material.

- 1 The system includes phantom items in the inquiry.
-
-

2. Process Items

Use this processing option to specify whether the system displays the process items. Process items include the process, co-products, by-products, and ingredients. A discrete bill may contain a component that is produced from a process. You use this processing option when you combine discrete and process manufacturing to display a complete structure of the requirements. Valid values are:

Blank The system excludes process items from the inquiry.

- 1 The system includes process items in the inquiry.
-

3. Text Lines

Use this processing option to specify whether the system displays the text lines. Valid values are:

Blank The system excludes text lines from the inquiry.

1 The system includes text lines in the inquiry.

4. Consolidate Component Items

Use this processing option to specify whether the system consolidates duplicate components. The same component may be listed in the bill of material several times, either on different subassemblies or on the same subassembly at different operations. When you use this processing option with the Subassemblies processing option, the system consolidates components at the subassembly level or for all levels of the bill of material. When viewing the consolidated components, the quantity required is accumulated for duplicate components. Valid values are:

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

1 The system consolidates duplicate components in the inquiry.

5. Subassemblies

Use this processing option to specify whether the system displays the subassemblies. A subassembly is an assembly that is used at a higher level to make up another assembly. Valid values are:

Blank The system excludes subassemblies from the inquiry.

1 The system includes subassemblies in the inquiry.

6. Shrink

Use this processing option to specify whether the system adjusts the requested quantity for shrinkage. Shrinkage is the planned loss of a parent item caused by factors such as breakage, theft, deterioration, and evaporation. Valid values are:

Blank The system does not adjust the requested quantity.

1 The system adjusts the requested quantity for shrinkage.

7. Scrap

Use this processing option to specify whether the system adjusts the extended quantity for scrap. Scrap is unusable material that results from the production process. It is material outside of specifications and of such characteristics that rework is impractical. Valid values are:

Blank The system does not adjust the extended quantity.

1 The system adjusts the extended quantity for scrap.

8. Yield

Use this processing option to specify whether the system adjusts the extended quantity for yield. Yield is the ratio of usable output from a process to its input. Valid values are:

Blank The system does not adjust the extended quantity.

1 The system adjusts the extended quantity for yield.

9. Purchased Items

Use this processing option to specify whether the system explodes to the next level of purchased items in the bill of material report. Valid values are:

Blank The system excludes lower-level purchased items from the report.

1 The system includes lower-level purchased items in the report.

10. Phantom Operation Sequence Number

Use this processing option to specify how the system displays operation sequence numbers for components of a phantom item. Valid values are:

Blank

The system displays the operation sequence number of the component.

1

The system displays the operation sequence number of the phantom item.

► 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Parts List Detail Inquiry

Cancel Tools

Item Number: 2001 *Cro-Moly Frame, Red*

Branch/Plant: M30 Location: . . .

Date Requested: 06/24/05 Lot/Serial: . . .

Lot Grade: . . . Grade From: . . . Grade Thru: . . .

Lot Potency: . . . Potency From: . . . Potency Thru: . . .

Transaction Qty Secondary Qty

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 Required
- Qty on Hand
- Qty Available
- Ordered
- Issued
- WO Hard Commit
- SO Hard Commit
- WO/SO Soft Commit
- Qty on Order

Processing Options for Parts List Inquiry (P3121)

Versions Tab

These processing options control which version the system uses when the following programs are called from the Parts List Inquiry program.

1. Purchase Order Inquiry Version (P4310)

Blank = ZJDE0001

Use this processing option to specify the version of the Purchase Orders program (P4310). If you leave this processing option blank, the system uses the ZJDE0001 version.

2. Supply/Demand Version (P4021)

Blank = ZJDE0001

Use this processing option to specify the version for the Supply and Demand Inquiry program (P4021). If you leave this processing option blank, the system uses the ZJDE0003 version.

3. Manufacturing WO Parts List (P3111)

Blank = ZJDE0001

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.

4. Equipment/Service Order Parts List (P17730)

Blank = ZJDE0001

Use this processing option to specify the version of the Work Order Material Detail program (P17730) that the system uses. If you leave this processing option blank, the system uses the ZJDE0001 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 review the availability of items and compare it to 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 lead time
- Parts that, if absent, stop the production line

- Parts that are expensive to purchase or manufacture
- Parts that must be closely monitored
- Parts that are produced at critical work centers

You can change component shortage information by item, work order, branch/plant, work order type, or any combination of these by using the Shortage Workbench program (P3118). You can also review and revise information that indicates how the system fills shortages.

You can locate and review shortage information for an item that is associated with one or more work orders. Use this program 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

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).

► **To revise shortage information**

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. Revise the following information, if necessary:
 - Due Date
 - Short Quantity
 - Deliver To W/C
 - Rel Ord Type
 - Requested Date
4. Click OK.

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 Shortage Information

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

The Component Shortages report (R31418) 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 the Order Processing program (R31410).

Note

If you use Warehouse Management, the Component Shortages report does not include parts that have a status of In Warehouse.

In addition, you can print the All Shortages report (R3118P) that 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 Component Shortages (R31418)

Print

1. Enter a '1' to print only parts with a shortage.

Print shortages only.

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

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	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. The system allows you to issue material in two different units of measure, if dual units of measure are defined for the item in the Item Master program (P4101). When the item that you are issuing is a lot-controlled item, and the effective date of the lot is greater than the current date, the system issues a warning.
Warehouse Management	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.

Issuing Inventory

You do not have to generate an issue transaction at the same time that inventory is physically moved. The Shop Floor Management system allows you to choose the point in the production process during which you 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 for 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.

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

- Manual issues** The system deducts materials from inventory when you enter the issue transactions on the Inventory Issue Revisions form.
- Preflush** The system automatically deducts materials from inventory when you run the Order Processing program (R31410).
- Backflush** The system deducts materials from inventory when you report items on the work order or rate schedule as complete. Backflush can occur when you report partial completions throughout the production process or when you report full completions at the last operation of the routing instructions.
- When the parts list includes lot-controlled items, the system first issues the parts list lines with lot numbers because those quantities are already hard-committed. When these quantities are not sufficient, the system searches for additional lots at the work center location and issues material from those lots based on the commitment method.
- Super Backflush** The system automatically deducts materials from inventory during operations that are defined as pay points throughout the routing instructions. Super backflush allows you to simultaneously backflush materials and labor hours and to report items as complete.

Some issue methods allow you to issue materials without displaying the Inventory Issue Revisions form. Other methods display the issue transaction for your review before the system records it.

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.

The default 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.

Inventory is issued from the location at which it is committed. You can change the commitment location for an item. The Inventory Issues program (P31113) correctly relieves these commitments. If you are issuing a grade- or potency-controlled item from a lot, and the lot grade or potency rating is not within the desired range, the system displays a warning message.

When you issue inventory, the system performs the following updates:

- Relieves inventory
- Updates the Item Location File table (F41021)
- Writes records to the Item Ledger File table (F4111)
- Updates the Production Cost table (F3102)

- Updates unaccounted units in the Work Order Parts List table (F3111)
- Writes G/L transaction in the Account Ledger table (F0911)

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, verify that the operation sequence numbers for those lines are unique for the bill of material.

If you are using the Warehouse Management system and issuing materials to a work order, the system does not issue any part that has a status of In Warehouse. Before the system can issue the part, you need to update its status to Out of Warehouse by pick confirmation through a pick list. 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 the Order Processing program.

See Also

- ❑ *Issuing Material* in the *Product Costing and Manufacturing Accounting Guide* for information about the impact on costs when issuing material
- ❑ *Confirming Pick Suggestions* in the *Warehouse Management Guide* for information about how to confirm a pick request

Issuing Material by Preflushing

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

Preflushing is the act of using the Order Processing program (R31410) to enter issue transactions for all material that is required for a work order when you process the work order. 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 any item that is associated with the work order, regardless of the issue code of the item.

Before You Begin

- ❑ Set the issue type code on the parts list.

Issuing Material Manually

You can use the Inventory Issues program (P31113) to manually issue material that is associated with a work order. When you issue material, you can choose to have the system automatically adjust the issue quantity by the parent item's shrink or yield factor. You can also use this 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 that is required. It also adjusts the available balance for any location in which you changed the quantity committed.

If you are working with a large parts list and do not need to issue all component quantities at the same time, the system provides you with filter fields to display only those component records for which you want to perform issues. You can filter the parts list by operation sequence, requested dates, component item numbers, and component line numbers. If you issue items that have a secondary unit of measure, the issue line must state the issue quantity in both the primary and secondary unit of measure.

If you did not assign serial numbers to any of the assemblies on your work order at order entry, you can assign them during the inventory issue process.

You can access the Select Multiple Locations program (P42053) from the Inventory Issue Revision form if you need to issue material from locations that are different from the locations that appear on the Inventory Issue Revisions 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
 - Branch/Plant
2. Choose an order and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Inventory Issue Revisions

Basic Information Additional Details Filters

Order Number/Type: 451469 WO Branch/Plant: M30
 Lubricant Process: Transaction Date: 08/27/03
 Qty Ordered/UOM: 1 EA
 Issue Material For/UOM: 1 EA

Records 1 - 5

Issue 1.0	Item Number	Description	Oper 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	
<input type="checkbox"/>	1						20	

Note

Complete step 3 only if you do not want to issue material for all component quantities at once.

3. On Inventory Issue Revisions, choose the Filters tab, complete any of the following fields and options, and click Find:
 - Requested Date - From
 - Requested Date - Through
 - From Op Seq
 - Through Op Seq
 - Component Item No
 - Skip To Component Line Number
 - Display All Lines
 - Display Only Open Lines

4. Review the following fields:
 - Mt St
 - Quantity Ordered
 - Component Branch
 - Secondary Qty Ordered
 - Location
 - Lot Serial Number
 - Expired Date
 - Lot Effective Date
5. Choose the Basic Information tab and complete the following field:
 - Issue Material For/UOM

Use this field to enter the quantity of the parent item that indicates how many sets of parts are needed. If you are issuing a partial parent item quantity, enter this quantity and click Find. The detail area displays the partial quantity to be issued. The Qty (Quantity) Ordered field in the detail area indicates the quantity of each component that the system deducts from inventory.
6. To override the processing option settings for applying the shrink or yield factor of the parent quantity, choose the Additional Details tab and turn on one or both of the following options:
 - Inflate Shrink
 - Inflate Yield
7. To complete the issue process, click OK.

Note

To reverse an issue transaction, change the item quantity that you want to reverse to a negative number. The system decreases the amount in the Quantity Ordered field for the item by the amount of the reversal.

To close items that you no longer need, choose the items and then choose Close Line from the Row menu. The system closes 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 Assembly Serial Numbers program (P3105) to review numbers that the system previously assigned to work order assemblies.

► **To issue material from multiple locations**

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
 - Branch/Plant
2. Choose an order and click Select.
3. On Inventory Issue Revisions, click Find:
4. Choose an item in the detail area, and then choose Multi-Location from the Row menu.

The screenshot shows the 'Select Multiple Locations' dialog box in PeopleSoft. The dialog has a title bar with 'PeopleSoft' and navigation icons. Below the title bar, there is a 'Select Workspace' dropdown set to 'Active Foundation'. The main area of the dialog is titled 'Select Multiple Locations' and contains several input fields and a grid.

Input fields include:

- Line Number:
- Item Number: O/I
- Total Selected:
- Quantity Under:
- Units Ordered: GA
- Location:
- Memo Lot 1:
- Memo Lot 2:
- From Lot:
- To Lot:

Summary fields on the right include:

- Branch/Plant:
- Total Secondary Selected:
- Secondary Quantity Over:
- Secondary Ordered:

At the bottom, there is a grid with the following columns: Quantity, Secondary Quantity, Location, Lot / Serial, Branch Plant, Available, UOM, Secondary Available, Secondary UOM, and Based On Date. The grid contains one row with the following values:

Quantity	Secondary Quantity	Location	Lot / Serial	Branch Plant	Available	UOM	Secondary Available	Secondary UOM	Based On Date
50				M30	0	GA			

5. On Select Multiple Locations, review the default information in the following fields:
 - Quantity
 - Location
 - Lot / Serial
 - Branch/Plant
 - Expiration Date
 - Lot Effective Date

6. To issue material from different locations, position the cursor in the first blank record in the detail are and complete the following fields:
 - Quantity
 - Location
 - Lot / Serial
 - Branch/Plant
7. Click OK.
8. On Inventory Issue Revisions, click OK.

Processing Options for Work Order Inventory Issues (P31113)

Edits Tab

These processing options control default values for the Inventory Issues program-- for example, the default document type for inventory issues-- as well as the status beyond which the system cannot issue inventory and the lot hold codes that still allow you to issue inventory to a lot. You can also determine whether an error message is displayed when an issue causes the on-hand quantity to become negative.

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 status code that the system assigns to the work order header, beyond which the system cannot issue material.

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.

Display Tab

These processing options control the display of values in the Inventory Issue program. For example, you can specify that the system only display components with valid issue type codes, and that the issue quantity is displayed with shrink or yield already applied.

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.

4. Apply Shrink to Issue Quantity

1 = Apply

Blank = Do not apply

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. Apply Yield to Issue Quantity

1 = Apply

Blank = Do not apply

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.

4. Apply Shrink to Issue Quantity

1 = Apply

Blank = Do not apply

A code that controls whether the system applies a parent item's shrink factor to the recommended issue quantity of a component item. Valid values are:

1 The system applies the shrink factor to the issue quantity.

Blank The system does not apply the shrink factor to the issue quantity.

5. Apply Yield to Issue Quantity

1 = Apply

Blank = Do not apply

A code that specifies whether the system applies operation scrap percentage to the recommended issue quantity of a component item. Valid values are:

1 The system applies the operation scrap percent to the issue quantity.

Blank The system does not apply the operation scrap percent to the issue quantity.

6. Select All Lines for Issue on Entry

Use this processing option to specify whether the system processes unviewed records after you click OK. The detail area displays components one page at a time. Click OK before scrolling down to view and process all records. Valid values are:

Blank

Process unviewed records after clicking OK.

1

Do not process unviewed records after clicking OK.

7. Display Only Open Lines

Use this processing option to specify whether the system displays only open lines or all lines in the detail area. A line is considered open if it has not been closed by choosing "Close Line" from the row menu. A line is also considered open if the order quantity is greater than the issued quantity. Valid values are:

Blank

Display all lines in the detail area.

1

Display only open lines in the detail area.

Versions Tab

These processing options control which version the system uses when you call the following programs from the Inventory Issues program:

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

This processing option controls whether the system automatically enters the work order number into the subledger field of the journal entry when processing maintenance orders.

1. 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

These processing options control the default transaction type for inventory issue and work order transactions, as well as whether the system writes a before image for the work order header.

1. Inventory Issue 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.

2. 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.

3. Work Order Header Before Image

1 = Include the image

2 = Do not include the 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.

Recording Component Scrap

You can use the Component Scrap program (P31116) to add scrapped quantities of component items to the Item Ledger File table (F4111) and the Work Order Parts List table (F3111). The Item Ledger File table 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 causes 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 F3111 table.

The system uses the order number information from the Work Order Master File table (F4801) and the component information from the F3111 table.

► 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Component Scrap Revisions

OK Cancel Form Row Tools

Revision by Order Branch/Plant M30
Requested 06/12/05

Order Number/Type 451021 WVO

Transaction Date 08/27/03 Quantity Ordered 10 EA
Quantity Completed EA

	Component 2nd Number	Issued	Scrapped	Quantity To Scrap	UM	Reason Code	Explanation	Date	Description
<input checked="" type="checkbox"/>	9001				CM			08/27/03	250 mm C
<input type="checkbox"/>	9002				CM			08/27/03	500 mm Cr
<input type="checkbox"/>	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

- *Recording Component Scrap in the Product Costing and Manufacturing Accounting Guide*

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 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 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

You can process outside assemblies using the Work With Kanban Masters form (W3157A). Kanbans that have an outside assembly have a source type of 4. 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 and purchase receipts, and completes the inventory transfer.

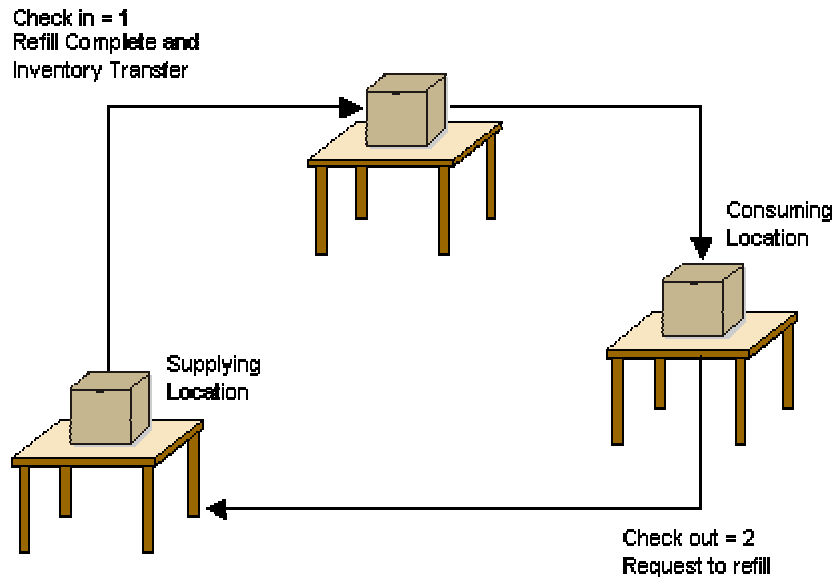
Note

You must set up kanban items that are used for outside processing with a stocking type of 9 and a special handling code of O.

Kanban Processing

Kanbans can be used as part of one-phase or a two-phase process. The one-phase process 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).

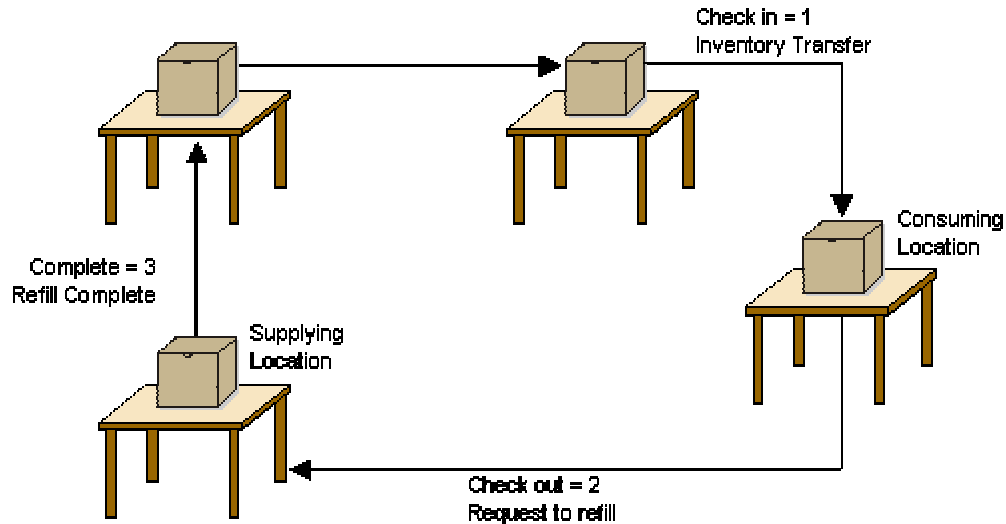
One Phase Kanban



The two-phase approach 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). Using this method is helpful when you are working with items that require inspections or tests before they are consumed.

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

Two Phase Kanban



You can process kanbans for the following items:

- Inventoried items
- Manufactured items (subassemblies or phantoms)
- Externally supplied items

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

When you check out a kanban that is manufactured, the program either creates a work order or looks for an existing work order or rate. It bases its action on the order policy code for the item. (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 that is 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 producing line replenishes the item, and the system completes the kanban and checks it in. This results in a transaction for inventory transfer, from the supplying location to the consuming location.

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 creates a receipt for the purchase order.

See Also

- ❑ *Sending Shipping Schedules* in the *Data Interface for Electronic Data Interchange Guide* for more information about kanban-related EDI transactions

Processing Kanban by Item

Depending on the processing option setting, you can access the Kanban Processing program (P3157) either in consumption mode or in supply mode. 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)

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)

► To process kanban consumption by item

From the Daily Processing - Repetitive menu (G3115), choose Kanban Consumption.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work With Kanban Masters

Selection Criteria Defaults

Consuming Branch M30

Item Number 2037 Front Fork, Touring

Consuming Location *

Supplier *

Kanban ID *

Kanban Status *

Kanban ID	Card Number	Kanban Status	2nd Item Number	Transaction Quantity	UM	Container Size	Kanban Size	Consuming Location
600	588	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
2. To check in a kanban that was supplied by the production line (and for which a rate or work order was created), choose the Defaults tab and complete the following fields:
 - Shift
 - Employee Number
3. Choose the appropriate Kanban ID record 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.

The system displays a confirmation form that permits you to confirm or cancel your kanban transaction.

► **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
2. Choose the Defaults tab, and then 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. Create Purchase Order

Blank - Use PO already created

- 1 - Create a new PO
- 2 - Find existing PO and if none exists
create a new PO

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 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 requirements planning and master production scheduling schedules. 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 display work orders by start date or requested date. You can also access related information, such as associated work orders, sales orders, purchase orders, parts lists, and routing instructions.

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.

After you have established the production schedule, you print scheduling information and run the production in a work center.

Repetitive manufacturing involves consistent demand for a family of products that can be built on dedicated production lines. To use the capacity of the production lines efficiently, you schedule and sequence items using the Line Scheduling Workbench (P3153) and the Line Sequencing Workbench (P3156) programs.

Revising Work Order Status Information

After a work order is on the shop floor, you can review the order and the capacity of 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 revise 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. In order to filter the work order displayed, choose the Work Order Info tab and complete any of the following fields:
 - Item No.
 - Planner
 - Customer Number

3. Choose the Additional Selection Criteria tab and complete any of the following fields:
 - Order Type
 - Type Work Order
 - Priority
 - Phase
 - Category 02
 - Category 03
4. Choose a work order number and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation

Work Order Status Update

WO Status | Additional W/O Detail

Or NoTY/Co: 451004 WO: 00200 Touring Bike, Red Branch/Plant: M30

Item Number: 220 Transaction: 2000 Secondary: 2000

UOM: EA

Requested Date: 06/28/05

Start Date: 06/24/05

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:

5. 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)

Default 1

1. Select Status Range or Item

From W.O. Status

Thru W.O. Status

Item Number

Item Cross Reference

2. Select Planner and/or Customer

Address Number-Planner

Address Number-Customer

Default 2

3. Select WO Categories

W.O. Type

W.O. Priority

Phase (Category 1)

Category 2

Category 3

4. Select WO Document Type

W.O. Document Type

Versions 1

Note: Versions will default to ZJDE0001

1. Work Order Completions Version

2. Super Backflush Version

3. Inventory Issues Version

4. Work Order Entry Version

5. Work Order Parts List Version

6. Work Order Routing Version

7. Rate Schedule Version

8. Production Status Version

Versions 2

Note: Versions will default to ZJDE0001

9. Sales Order Inquiry Version

10. Sales Order Entry Version

11. Purchase Order Inquiry Version

12. Purchase Order Entry Version

Interop

1. Work Order Transaction Type

2. Work Order Header Before Image
1 = Include before image
Blank = Do not include before image

Printing Scheduling Information for Work Centers

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

Use the Dispatch List batch program (R31435) to plan and run the production in a work center. The Dispatch List program displays scheduling information for a work center. You can review and change this information in Dispatch List program (P31220).

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).

Scheduling Items on a Production Line

Use the Line Scheduling Workbench (P3153) to schedule rates and work orders for the family of items produced on a production line. This program shows information in daily areas 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 throughout the workdays within the date range specified in the line and item relationship for the item. From the workbench, you can access the following forms:

- Alternate Line Selection (W3155WC)
- Split Lines Window (W3154WA)
- Parts Availability Multi Level Indented (W30200C)
- Work with Detail Messages (W3411D)

You use the Split Lines form to move scheduled quantities from one line or shift 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
- Splitting production among shifts on the same or different lines

Use Alternate Line Selection to review all lines for which line and item relationships exist with 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:

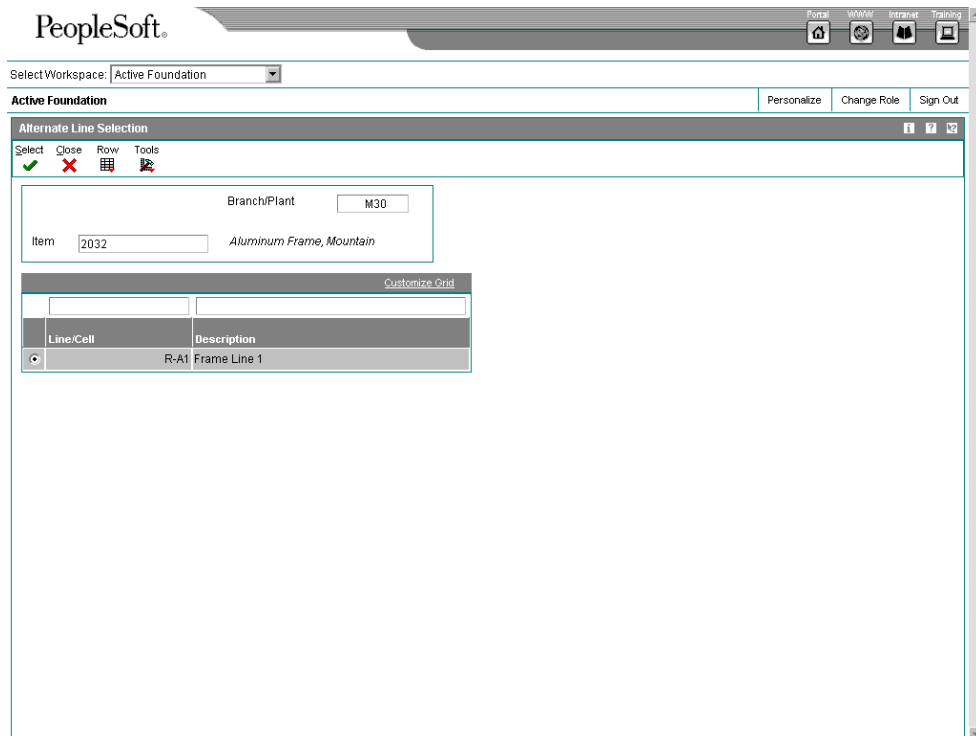
- From Date
- Thru Date

3. Click Find:

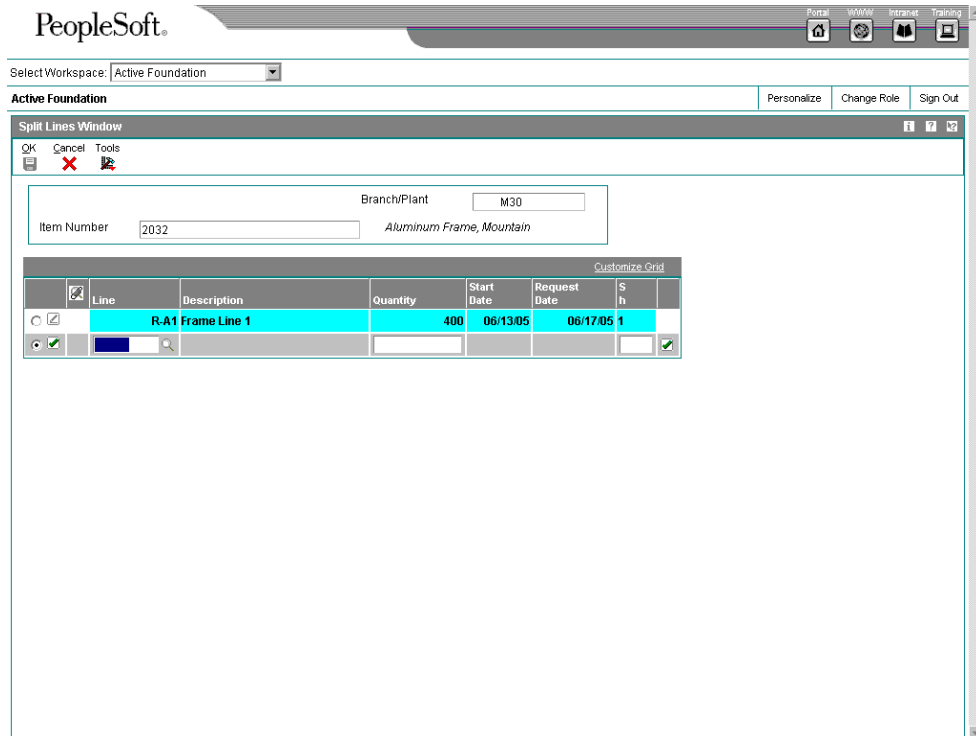
4. Change any scheduled quantity as needed.

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.

5. To specify an alternate line, choose a record, and then choose Alternate Line from the Row menu.



6. On Alternate Line Selection, choose the alternate line, choose Select/Split from the Row menu and click OK:



7. On Split Lines Window, complete the following field to move scheduled quantities from one line to another:
 - Quantity

Note

If you access the Split Lines Window directly from the Line Scheduling Workbench form, you also need to complete the Line field.

8. To specify shift and date information, complete the following fields:
 - Start Date
 - Request 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 program (P3156) to sequence the rates after you schedule production. This workbench shows information about actual rates only, and it displays the information in daily amounts. 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 program (P3109). Beginning with the first shift and day, the program forward-schedules the quantities, thus consuming 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.

If you sequence by sequence number, beginning with the first shift and day, the program forward-schedules the quantities, thus consuming 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. To manually override the default sequence, change 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 (W3009B). After revising the sequence, you can update the schedule as it 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:
 - Effective From
 - Thru
3. Click Find.
4. 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

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 use the Super Backflush program (P31123) to have the system automatically enter the standard values at the paypoint operations in the routing instructions. Otherwise, you can have all employees individually enter their time and the quantities that they completed.

The Shop Floor Management system interfaces with the time entry feature of the J.D. Edwards Time Accounting system so that employee hours and quantities produced have to be entered only once. The single entry saves time, reduces the risk of data entry error, and ensures that data throughout your enterprise is consistent.

The system can record hours and quantities in the work order record and in the Time Accounting system. Hours and quantities can be applied to a specific work order so that you can maintain accurate manufacturing accounting and costing data. To accommodate both piecework and hourly-rate employees, you can record hours and quantities either per work order or per employee.

The Shop Floor Management system manages hour and quantity information in the same manner whether you enter it in the Hours and Quantities program (P311221) or in the Speed Time Entry program (P051121) in the Time Accounting system. If you use the Time Accounting system in conjunction with the Shop Floor Management system, you should use the Speed Time Entry program 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 a routing operation, the change does not take effect until you run the Hours and Quantities Update program (R31422) to update the Work Order Routing table (F3112).

The system stores header information from the Work With Work Order Time Entry form (W311221B) in the Work Order Master File table (F4801). Detail information is stored in the Work Order Time Transactions table (F31122).

If you use the Quality Management System, as you record actual hours and quantities for a work order, you can access the Enter Test Results program (P3711) for completed items that require testing.

See Also

- ❑ *Record Hours and Quantities* in the *Product Costing and Manufacturing Accounting Guide* for information about the impact of time entry data on manufacturing accounting
- ❑ *Working with Test Results* in the *Quality Management Guide* for information about entering test results
- ❑ *Working with Employee Timecards* in the *Time Accounting Guide* for information about time entry methods

Entering Hours and Quantities

Use the Hours and Quantities program (P311221) to charge actual hours and quantities to a work order. You can use the processing options to specify either of the following formats for work order time entry:

Order number format This format records time and quantities for employees by work order

Employee number format This format records time and quantities for the routing instruction steps on a work order by employee.

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 causes 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.
- If you activate the Apply Yield to Completed Quantity processing option, the system applies the operation yield percentage to the completed quantity. When you enter the completed quantity, the system automatically adds a scrap quantity line that is calculated based on the yield percentage.
- The system verifies that the completed and scrapped quantities that you enter do not exceed the quantity at operation.

Note

If you use the Speed Time Entry program (P051121), you can set the Manufacturing Time Entry processing option to update the information in the Hours and Quantities program.

► **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

Note

If you use the employee number format for time entry, the system displays the Employee Number field instead of the Order Number filter field.

2. To enter hours and quantities, click Add.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Time Entry Revisions

OK Delete Cancel Form Tools

Work Date: 08/27/03 Batch Number: 33462

Order Number/Type: 451004 W/O Touring Bike, Red

Item Number: 220

Records 1 - 1

Order Number	Employee Number	Oper #	Ty Hrs	Shift Code	Begin Time	End Time	Hours	Quantity	UM	St	Employee Name	Misc. Dollars
451004												

3. On Time Entry Revisions, complete the following fields:
 - Employee Number
 - Oper #
 - Ty Hrs
 - Shift Code

- Hours
 - Quantity
4. Complete the following fields:
 - Equipment Number
 - UM
 - St
 - Employee Rate
 - Equipment Rate
 - Reason Code
 5. Enter as many lines as needed to record work hours and completed quantities.
 6. Click OK.
 7. On Work With Work Order Time Entry, review your entries.

If you entered a quantity that you want to be posted as complete, the system adds a separate detail line for the completed quantity (Type of Hours 4). If scrap exists, the system adds a scrap quantity line (Type of Hours 5).

Processing Options for Hours and Quantities (P311221)

Display Tab

This processing option controls whether the system displays the Time Entry Revisions form (W051131A) in order number or employee number format.

1. Display

Blank = Employee Format Display

1= Order Number Format Display

Use this processing option to specify whether the system displays forms by employee number or order number. Valid values are:

Blank

Employee number

1

Order number

Defaults Tab

These processing options control the default values for the document type and work order status code that are used in the Hours and Quantities program.

1. Enter the Document Type associated with Shop Floor Activity.

Use this processing option to specify the document type (UDC 00/DT) associated with shop floor activity. You define document type codes in the Document Type Maintenance program (P40040).

2. Work Order Status Code

Use this processing option to specify the default work order status code (UDC 00/SS) that the system assigns to the work order when hours and quantities are posted to the work order routing. If you leave this processing option blank, the system does not update the work order status code.

Edits Tab

These processing options control processing in the Hours and Quantities program, such as whether the system performs quantity verification or applies a yield percentage to the completed quantity.

1. Enter the Status Code beyond which Shop Floor Activity cannot be entered.

Use this processing option to specify the status (UDC 00/SS) of a work order beyond which shop floor activity cannot be entered.

2. Quantity Verification

Blank = Disable Quantity Verification

1 = Enable Quantity Verification

Use this processing option to specify whether the system verifies if the quantity complete and the quantity scrapped exceeds the quantity at operation.

Blank

Disable quantity verification.

1

Enable quantity verification.

3. Employee Rate

Blank = Show Rates

1 = Hide Rates

Use this processing option to specify whether the system displays the employee rate.
Valid values are:

Blank

Display the employee rate.

1

Do not display the employee rate.

4. Apply Yield to Completed Quantity

Blank = Do not apply

1 = Apply

Use this processing 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 percentage to the quantity completed.

1

The system applies the operation yield percentage to the quantity completed.

Versions Tab

These processing options control which version the system uses when the following programs are called from the Hours and Quantities program.

1. Test Results Revisions (P3711)

Blank = ZJDE0001

2. Manufacturing Scheduling Workbench (P31225)

Blank = ZJDE0001

3. Production Status (P31226)

Blank = ZJDE0001

4. Hours and Quantities Update (R31422)

Blank = XJDE0001

Interoperability Tab

These processing options control which transaction type the system uses for outbound hours and quantities transactions and whether the system writes a before image for the work order header.

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 processing option blank, the system does not perform export processing.

2. Work Order Header Before Image

Blank = Do not include the image

1 = Include the 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 writes the before image.

Blank

The system does not write the before image.

Updating Hours and Quantities

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

To post hours and quantities to the Manufacturing system, you must run the Hours and Quantities Update program (R31422). This program updates the Work Order Routing table (F3112) with unaccounted labor units and amounts for each work order operation. This table then 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 (W051131A).

If you use the Super Backflush program (P31123) to enter hours and quantities, the quantity transactions are posted in real time. The program enters the transactions at the points in the routing instructions that you specify. To post hours, you still have to run the Hours and Quantities Update program. 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.

When you run this batch program from the menu, you 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). The system enters a P in the Processed Code field for each entry that it updates so that the record cannot be updated again. If you access the update program from Time Entry Revisions form, the system updates the time entry lines that appear on the form for the selected work order or employee. After the update, the system clears the form, and the records that were processed no longer appear.

Processing Options for Hours and Quantities Update (R31422)

Interoperability Tab

These processing options control the transaction type for outbound hours and quantities transactions and the call to the batch program for the outbound subsystem.

1. Transaction Type

A specific transaction type

Blank = No outbound transaction processing

Use this processing option to specify the transaction type for the hours and quantities the system uses when processing outbound transactions. If you leave this field blank, the system does not perform outbound processing.

2. Outbound Subsystem UBE

1 = The UBE will be called

Blank = The UBE will not be called

Use this processing option to specify whether the system calls the subsystem after the Hours and Quantities Update program (P31422) successfully processes the outbound transactions. Valid values are:

1 The system calls the subsystem.

Blank The system does not call the subsystem.

S/WM Tab

These processing options control processing for Service Management. For example, the processing options control whether the system creates journal entries, whether flex accounting is used, and whether the order number should be used as a default value for the subledger field.

1. S/WM Journal Entries

1 = Create S/WM journal entries

Blank = Do not create S/WM journal entries

Use this processing option to specify whether the system creates journal entries for SWM Work Orders. Valid values are:

1

The system creates SWM journal entries.

Blank

The system does not create SWM journal entries.

2. Flex Accounting

1= Use flex accounting

Blank = Do not use flex accounting

Use this processing option to indicate whether this program searches for flex accounting rules to populate cost objects in the Account Ledger table (F0911).

The system requires flex accounting to attach cost objects to the journal entries. Valid values are:

1 The system uses flex accounting.

Blank The system does not use flex accounting.

3. General Ledger Date

A specific date

Blank = Use today's date

Use this processing option to specify the date that appears on journal entries. If you leave this field blank, the program uses the system date.

4. Subledger

1 = Default order number

Blank = Do not default order number

Use this processing option to specify whether the system uses the work order number as the default in the Subledger field. Valid values are:

1 The system uses the work order number as the default.

Blank The system does not supply a default value.

5. Document Type

A specific document type

Blank = Default 'IH'

Use this processing option to specify the default document type that the system enters for journal entries on extra cost components if you do not use routings. 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 Code form. If you use routings, the system automatically assigns a document type of IH. If you

leave this field blank, the system uses document type IH.

Defaults Tab

This processing option controls the status that the system assigns to the work order when hours and quantities are posted to the work order routing.

1. Work Order Status Code

Use this processing option to specify the work order status code (UDC 00/SS) that the system uses to update the work order when hours and quantities are posted to the work order routing. If you leave this processing option blank, the system does not update the work order status code.

Reviewing Statuses and Transactions

After you enter hours and quantities, you can review the information either online or by printing a report. To review hours and quantity entries before you post them, you can use the Hours and Quantities Proof program (R31322). Then, you run the Hours and Quantities Update program (R31422) to post the entries.

You can use the Order Hours Status program (P31121) to display the actual hours for machine, labor, and setup hours entered for each operation that is associated with a work order. You can also access the Work Order Status - Hours Revisions form, on which you can review the actual, standard, and variance values for the hours.

You can use the Order Quantities Status program (P31122) to display the quantities entered for the operations that are scheduled for a work order, including the actual quantity ordered, completed, and scrapped for each operation. You can also access the Quantities Revision form, on which you can review the actual, standard, and variance values for the quantities.

You can use the Operation Quantity Inquiry program (P31124) to 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 hours and quantities entries before you post them, you can use the Hours and Quantities Proof program (R31322)

Reviewing Hours and Quantities Transactions

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

The Hours and Quantities Proof program (R31322) allows you to print a report that lists all labor hours and completed quantities that are recorded for 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 you post the transactions, you can change or update them. After you post them, you cannot change them. The system retrieves the hours and quantities information from the Work Order Time Transactions table (F31122).

► To review the status of hours

From the Daily Order Reporting - Discrete menu (G3112), choose Order Hours Status.

1. On Work With Work Order Status - Hours, complete the following field and click Find:
 - Order Number/Type
2. Choose an operation and click Select.
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.

► To review the status of quantities

From the Daily Order Reporting - Discrete menu (G3112), choose Order Quantities Status.

1. On Work with Work Order Status - Quantities, complete the following field and click Find:
 - Order Number/Type
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

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

From the Daily Order Reporting - Discrete menu (G3112), choose Operation Quantity Inquiry.

1. On Work With Operation Quantities, complete the following fields and click Find:
 - Branch/Plant
 - Order Number/Type
2. Choose an order number and click Select.
3. On Operation Quantities Inquiry, review the following fields and click Cancel:
 - Completed Date
 - Projected Comp./UOM
 - Yield

Processing Options for Operation Quantity Inquiry (P31124)

Defaults
Status Info

1. From Status
 2. Thru Status
-

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. The system provides you with programs and processes that allow you to record completions for discrete and process work orders, as well as rate schedules.

You use the Super Backflush (P31123) and Work Order Completions (P31114) programs to enter completions for work orders, and the Completions Workbench program (P3119) to enter completions to rate schedules.

If you use lot control, you can complete the item to an existing lot or you can create a new lot for the completed item and set its expiration date. The system can calculate different lot dates, such as expiration date and effectivity date, based on the lot date calculation information that you defined in the Item Master (P4101) or the Item Branch/Plant (P41026) program.

When you use Shop Floor Management with other J.D. Edwards systems, the following integration features apply:

Inventory Management

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. If you set dual unit of measure information in the item master record for an item, you need to enter completed quantities both in the primary and in the secondary unit of measure.

Warehouse Management

If you process transactions for a branch/plant that uses warehouse control, the Location Detail Maintenance program (P4602) 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 Maintenance program, appears in the header section 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 Maintenance form. Although you can override these values, the system verifies that the following information is true:

- 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 program (P4101).
- The units of measure appear in order from the largest to the 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 overfill pallet-type units of measure only as defined on the Unit of Measure Group Revisions form (W46096B).

The system always displays the Location Detail Maintenance form when you add 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.

For completed items for which cross-docking is activated in the record in the Item Branch File table (F4102), you can determine whether the system performs cross-docking to fill back orders. You can also specify whether the system creates pick requests for cross-docked items.

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

- Access the Enter Test Results program (P3711) for any items that require 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 the Enter Test Results program for any items that require testing
- Review generic text for the parent item and its operation

Sales Order Management

If you partially complete a work order that was generated from a sales order, the system can split the sales order into multiple sales order lines to reflect the partial commitment. If the sales order contains no hard commitment, you can set the Sales Order Lot and Location processing options to update the sales order with location information following a partial completion. You can also set a processing option to update the sales order status regardless of whether the completed quantity is hard-committed. You can also reverse a partial completion. In this case, the system splits the sales order again and creates a negative line.

When you complete work orders or rate schedules, the system performs the following actions:

- Updates the Item Location File table (F41021)
- Writes a record in the Item Ledger File table (F4111)
- Updates the Production Cost table (F3102)
- Updates unaccounted units in the Work Order Master File table (F4801)
- Writes a general ledger transaction in the Account Ledger table (F0911)

See Also

- *Recording Completions* in the *Product Costing and Manufacturing Accounting Guide*

Completing Discrete Work Orders

When you finish producing discrete 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. For items that are defined in a primary and a secondary unit of measure, you must enter the completed quantity in both units of measure.

You use the Work Order Completion (P31114) program to record completions. If you have already manually issued material for a work order, you perform a completion without backflush. You can either report all items as complete when the entire work order is finished, or 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. The Work With Work Order Completions form displays completed and scrapped quantities and percent complete information for a work order.

When you use the Work Order Completion 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. You can complete a work order to multiple locations. In this case, you enter the total quantity to be completed and then divide it among multiple locations.

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

You can perform full or partial order completions either with or without backflushing the parts. If you use backflushing, you report the issue transactions at completion or at operations that are defined as pay point operations for super backflush. For backflush to occur, the ingredient must be set up with an issue code that allows the item to be backflushed.

When you set a completions threshold in the processing option, the system updates the Update Status field on the Work Order Completion Detail form according to the threshold rules. If you use lot control, you can also specify a default value for the completion lot number, such as the work order number or the associated sales order number. You can override the default value on the form.

Before You Begin

- If you want to perform a completion with backflush, set the appropriate processing options to access the Inventory Issues program (P31113) and to identify the version of the program to use.

► To complete work orders without backflushing

From the Daily Order Reporting - Discrete menu (G3112), choose Partial Completion or Full Completion.

1. On Work With Work Order Completions, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose an order and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work Order Completion Detail

OK Cancel Form Tools

Order Number/Type/Desc: 451021 WVO Cro-Moly Frame Branch/Plant: M30

Item Number: 2004 Cro-Moly Frame

Current Status: 40 Started Labor or Material Reason Code:

Update Status: 45 Material Issued Enter Test Results after Completion

Quantity Location

Date Completed: 08/27/03 % Of Order Completed: 0.00

Date Last Completed:

	Transaction Qty	UOM	Secondary Qty	UOM
Qty Completed		EA		
Qty Scrapped				
Qty Ordered	10			
Qty Completed To Date				
Qty Scrapped To Date				

- On Work Order Completion Detail, choose the Quantity tab and complete the following fields:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

- Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

You can enter scrap manually for a parent item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. To complete a work order at a location other than the primary location, choose the Lot/Location tab, complete the following field and click OK:
 - Location

Caution

If you have activated the Location Control option in the Branch/Plant Constants program (P41001), you can only complete work orders to locations you have defined in the Location Master program (P4100).

6. If you are creating a new lot for a lot-controlled item, complete the following field:
 - Lot/Serial

Note

You can also set the appropriate processing option to use the sales order or work order number as the default value for the lot number on this form.

If you complete an item to an existing lot, the lot expiration and effectivity dates are populated from the lot master record. You can also use the Lot Date Override form exit on Work Order Completion Detail to enter the appropriate lot dates.

7. Click OK.

Processing Options for Work Order Completions (P31114)

Defaults Tab

These processing options control the default document types that the system uses when you complete inventory.

1. Inventory Completion Document Type

Use this processing option to specify the default document type for inventory completions. Select the document type from UDC 00/DT (Document Type - All Documents).

2. Inventory Scrap Document Type

Use this processing option to specify the default document type for inventory scrap transactions. Select the document type from UDC 00/DT (Document Type - All Documents).

Edits Tab

These processing options control how the system invokes processes, such as issues and receipt routing, during the completions process.

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 issues material to the Parts List based on the quantity that is completed. You can also specify whether the system issues material in interactive mode or blind mode. If the processing option is set to 1 or 2, you need to specify the version of the Work Order Inventory Issues program (P31113) on the Versions tab. Valid values are:

Blank

The system does not issue material to the Parts List.

1

The system displays the Work Order Issues form.

2

The system performs a blind execution of Work Order Issues.

2. Receipt Routing

Blank = Do not initiate receipts routing

1= Initiate receipt routing

Use this processing option to specify whether the system initiates the receipt routing process. This action allows the inventory completion to enter an inspection mode before the quantity is moved to stock.

To activate receipt routing for an item, the item must have a route assigned to it through the Supplier/Item Relationships program (P43090). The supplier for the manufactured end-item must be listed as -99999999. Valid values are:

Blank

The system does not initiate receipt routing.

1

The system initiates receipt routing.

3. 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. If you leave this processing option blank and you have performed no other completions for the work order, the lot number field is unprotected. If you have performed any completions for the work order, the system protects the lot number field. It uses the lot number for the first completion of that work order and for all other partial completions. However, if you set this processing option to 1, you can override the lot number even if

you have already performed a partial completion for the work order. 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.

4. 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:

Blank

The system does not display an error message for negative on-hand quantities.

1

The system displays an error message for negative on-hand quantities.

5. Enter a '1' to initiate WIP Revaluation (R30837)

Use this processing option to specify whether the system calls the WIP Revaluation program (R30837) to adjust work-in-progress amounts to reflect cost changes. Valid values are:

Blank

Do not initiate WIP Revaluation.

1

Initiate WIP Revaluation.

WO Status Tab

These processing options controls the status that you can assign to partially and fully completed work orders. You can also define a status as a threshold beyond which the system does not perform completion processing.

1. Partial Work Order Status Code

Use this processing option to specify the status code that you want the system to assign to a partially completed order. The system considers an order partially complete as long as the completed quantity is less than the percentage that is specified in the completion threshold processing option. If you leave this processing option blank, the system does not automatically update the status.

2. Completed Status Code

Use this processing option to specify the status code that the system assigns to a completed order. If you leave this processing option blank, the system does not automatically change the status. The system considers an order complete if the completed quantity is greater than or equal to the percentage that is specified in the Completion Threshold processing option.

3. Completion Threshold

Use this processing option to specify the threshold percentage at which the system considers the order to be complete. For example, if you enter 95, the system sets the work order status to complete when 95 percent of the order quantity is complete. If you specify

a threshold value of zero, the system sets the work order status to complete when 100 percent of the order quantity is complete. If the completed quantity does not reach the threshold, the system sets the work order status to partially complete. If a related sales order is attached or the work order is cross-docked, any threshold less than 100 percent is ignored.

4. Work Order Status Limit

Use this processing option to specify the work order status code (00/SS) at or beyond which the system cannot run the Work Order Completions program (P3114). For example, if this processing option is set to status 95 and a work order has reached this status, the system generates an error message if you attempt to run Completions for that work order. If you leave this processing option blank, the system processes work orders at any status.

Lot Hold Codes Tab

These processing options control 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. 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 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. Receipt Routing

Blank = Do not initiate receipts routing

1= Initiate receipt routing

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. Override Lot Numbers

Blank = The user cannot override lot number

1 = The user can override lot number

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. Negative Quantity on Hand

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. Enter a '1' to initiate WIP Revaluation (R30837)

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

These processing options control the information that the system needs to process completions that are associated with sales orders.

1. Partial Work Order Status Code

Use this processing option to specify which number 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. Completed Status Code

Use this processing option to specify whether the system updates the related sales order by committing the inventory to the related sales order, splitting the sales order detail line when a partial completion occurs, and updating the lot number and location number fields from the work order. Valid values are:

Blank

Do not update the sales order.

1

Update the sales order.

4. Work Order Status Limit

Use this processing option to specify whether the system updates the Next Status for the sales order. Valid values are:

Blank

The system does not update the Next Status.

1

The system updates the Next Status.

3. Completion Threshold

Use this processing option to specify the default next status code for the sales order. The system uses this processing option only if the Update Sales Order Next Status processing option is set to update.

Enter a status code from UDC 40/AT (Activity/Status Codes). If you leave this processing option blank, the system uses the sales order next status from the order activity rules.

5. Display Back Order Release Form

Blank = Do not display form

1 = Display form

Use this processing option to specify whether the system calls the Backorder Release program (P42117) for completed backordered items. By using this program, you can view the items that are on backorder and choose to ship them immediately. You can also prioritize existing backorders. If you enter 1 for this processing option, use the Back Order Release Version processing option on the Versions tab to specify which version of the Backorder Release program to use. Valid values are:

Blank

Do not call the Backorder Release program.

1

Call the Backorder Release program.

Process Manufacturing Tab

These processing options control whether the system allows unplanned co-products and by-products and whether the system issues them separately or together.

1. Lot Hold Code # 1

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. Lot Hold Code # 2

Use this processing option to determine if ingredients are issued to the process item or to each co- or by-product that the system completes. This processing option is used only if the Backflush option is set to call the Work Order Inventory Issues program (P31113). Valid values are:

Blank

The system issues ingredients to the process item.

1

The system issues ingredients to co- and by-products.

Note: If you choose 1, you can track lots to the final end product.

Serial Number Processing Tab

These processing options control how the system processes inventory completions when you have serial numbers attached to the work orders.

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 whether the system duplicates lot numbers, serial numbers, or both, that exist in the system. Valid values are:

Blank

The system does not duplicate lot numbers or serial numbers.

1

The system duplicates lot numbers and serial numbers.

2. Entry of license plate numbers

Blank = Automatically assigned by system

1 = Input allowed

Use this processing option to specify the default document type that the system uses for serial number issues. Document types are listed in UDC 00/DT (Document Type - All Documents). If you leave this processing option blank, the system uses IM (Material Charged to W.O.'s) as the default value.

Warehouse Management Tab

These processing options control information that is relevant to integration with the Warehouse Management system.

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 whether putaway requests will be processed. For mode 2, you need to specify the version of the subsystem program that the system uses in the Location Selection Driver processing option (R46171) on the Versions tab. 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.

2. Entry of license plate numbers

Blank = Automatically assigned by system

1 = Input allowed

Use this processing option to specify whether the system assigns license plate numbers automatically or allows you to specify the value. You use this processing option only if you enable license plate functionality at the Item/Branch level by using the Item Unit of Measure Definition program (P46011). Valid values are:

Blank

License plate numbers are assigned automatically.

1

License plate numbers are assigned manually.

Cross-Docking

These processing options control processing for cross-docking.

1. Cross Docking

Blank = No cross docking

1 = Opportunistic cross docking

2 = Planned cross docking

3 = Planned and opportunistic cross docking

Use this processing option to specify whether the system performs opportunistic cross-docking, planned cross-docking, or both. The system performs planned cross-docking only for items for which the cross-docking code is activated in the item branch/plant record. Valid values are:

Blank

Do not use cross-docking.

1

Use opportunistic cross-docking (only for warehouse items).

2

Use planned cross-docking.

3

Use both opportunistic and planned cross-docking.

2. Pick Request for Planned Cross Docking

Blank = Do not create pick request

1 = Create pick request

2 = Create pick request and process through subsystem

Use this processing option to specify whether the system creates a pick request when it performs planned cross-docking. Valid values are:

Blank

Do not create a pick request.

1

Create a pick request.

2

Create a pick request and process it through the subsystem.

3. Override Next Status for Sales Orders

Use this processing option to specify the default next status code for the sales order. The system uses this processing option only if planned cross-docking is performed.

Enter a status code from UDC 40/AT (Activity/Status Codes). If you leave this processing option blank, the system uses the sales order next status from the order activity rules.

4. From Sales Order Status

Use this processing option to specify the from status code of the sales order for cross-docking during work order completions. The system uses this processing option only if planned cross-docking is performed.

5. Thru Sales Order Status

Use this processing option to specify the thru status code of the sales order for cross-docking during work order completions. The system uses this processing option only if planned cross-docking is performed.

Versions Tab

These processing options control which versions of the following programs the system uses in the completion process:

1. Work Order Entry (P48013)

Use this processing option to specify the version you want to use when calling the Work Order Entry program (P48012) from the Work Order Completion Detail form. The version controls how the program displays information. If you leave this processing option blank, the system uses version ZJDE0001.

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. Test Results Revisions (P3711)

Use this processing option to specify the version that you want to use when calling the Test Results Revisions program (P3711) from the Work Order Completion Detail form. The version controls how the program displays information. If you leave this processing option blank, the system uses version ZJDE0001.

4. WIP Revaluation (R30837)

Use this processing option to specify which version of the WIP Revaluation program (R30837) the system uses. If you leave this processing option blank, the system uses version ZJDE0001.

5. Pick Request Version (R46171)

Use this processing option to specify the version of the Location Selection Driver program (R46171) that the system uses to create pick requests during planned cross-docking. If you leave this processing option blank, the system uses version ZJDE0001.

6. Location Selection Driver Version (R46171)

Use this processing option to specify the version of the Location Selection Driver program (P46171) to use. If you leave this processing option blank, the system uses version ZJDE0001. The version controls how the program displays information.

7. Back Order Release Version (P42117)

Use this processing option to specify the version of the Backorder Release program (P42117) that the system uses to complete inventory with backordered items. The version controls how the Back Order Release program displays information. Enter a version if the Display Back Order Release Form processing option on the Sales Orders tab is set to 1. If you leave this processing option blank, the system uses version ZJDE0001.

8. Shortage Workbench (P3118)

Use this processing option to specify the version that you want to use when calling the Shortage Revisions program (P3118) from the Work Order Completion Detail form. The version controls how the program displays information. If you leave this processing option blank, the system uses version ZJDE0001.

Interoperability Tab

These processing options control the default transaction type that the system uses to process export transactions and to identify the outbound subsystem.

1. Cross Docking

Blank = No cross docking

1 = Opportunistic cross docking

2 = Planned cross docking

3 = Planned and opportunistic cross docking

Use this processing option to specify the transaction type that the system uses for outbound interoperability processing. Transaction types are listed in UDC 00/TT (Transaction Type). The system assigns a transaction type to a transaction when it completes a work order. If you leave this processing option blank, the system does not

perform outbound interoperability processing.

2. Pick Request for Planned Cross Docking

Blank = Do not create pick request

1 = Create pick request

2 = Create pick request and process through 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.

3. Work Order Header Before Image

Blank = Do not include the image

1 = Include the 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.

► **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 fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose an order and click Select.
3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

You can enter scrap manually for a parent item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. To complete a work order at a location other than the primary location, choose the Lot/Location tab, complete the following field and click OK:
 - Location
6. If you are creating a new lot for a lot-controlled item, complete the following field:
 - Lot/Serial
7. Click OK.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Inventory Issue Revisions

Basic Information Additional Details Filters

Order Number/Type: 451004 WO Branch/Plant: M30
 Touring Bike, Red Transaction Date: 08/27/03
 Qty Ordered/UOM: 2000 EA
 Issue Material For/UOM: 1 EA

Records 1 - 10

Issue 1/0	Item Number	Description	Oper Seq#	Issues	Secondary Issues	Request Date	Mt St	Quantity Ordered
<input checked="" type="checkbox"/>	2001	Cro-Moly Frame, Red	10.00			06/24/05	20	
<input type="checkbox"/>	2021	Handle Bar	10.00			06/24/05	20	
<input checked="" type="checkbox"/>	2006	Touring Fork	20.00			06/24/05	20	
<input type="checkbox"/>	2007	Bottom Bracket	30.00			06/24/05	20	
<input checked="" type="checkbox"/>	2013	Shift Kit	30.00			06/24/05	20	
<input type="checkbox"/>	2008	Head Set	40.00			06/24/05	20	
<input checked="" type="checkbox"/>	2014	Brake Kit	40.00			06/24/05	20	
<input type="checkbox"/>	2009	Crank	50.00			06/24/05	20	
<input checked="" type="checkbox"/>	2010	Chain Rings	60.00			06/24/05	20	
<input type="checkbox"/>	2011	Chain, Std	60.00			06/24/05	20	

- On Inventory Issue Revisions, review the issue quantities and click OK to issue the material.

► **To complete a work order for multiple locations**

From the Daily Order Reporting - Discrete menu (G3112), choose Partial Completion.

- On Work With Work Order Completions, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
- Choose an order number and click Select.
- On Work Order Completion Detail, choose the Quantity tab and complete the following fields for the process item:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:

- Quantity Scrapped
- Date Completed

Note

You can enter scrap manually for a process item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. To complete the quantity for multiple locations, choose Multi-location from the Form menu.
6. On Select Multiple Locations, complete the following fields for all locations for which you want to complete parent items:
- Quantity
 - Location
7. Complete the following optional field:
- Lot / Serial
8. Click OK.
9. On Work Order Completion Detail, click OK.

Releasing Sales Backorders During Completions

You can create a sales order in the Sales Order Management system that automatically generates a work order to supply the ordered item (a sales order with line type W). If the requested date of this sales order does not allow sufficient time for the item to be manufactured, given the item's level lead time, the order quantity can be identified as backordered. In this case, you can launch the Release Backorders - Online program (P42117) during work order completion to release the backorder for the item.

Before You Begin

- Before you release sales backorders during completion, set processing options to call the Backorder Release order program (P42117) and identify the version of the 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 fields and click Find:
- Skip to Order Number
 - Branch/Plant

2. Choose an order number and click Select.
3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional field:
 - Quantity Scrapped

Note

You can enter scrap manually for a parent item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. To complete a work order at a location other than the primary location, choose the Lot/Location tab, complete the following field and click OK:
 - Location
6. On Work With Backorders, review the following 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.

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 table 43/RC (Route Codes) and an operation name in UDC 43/OC (Operation Codes). You enter a Y in any of the update fields in the Receipt Routing Definition program (P43091) to cause the system to update the appropriate field in the Item Location File table (F41021) 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 Update O/H field 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 field.

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 Completion 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

- ❑ 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Supplier/Item Relationships

OK Cancel Form Tools

Branch/Plant: M30

Supplier: 99999999- Work Order

Item Number: 4200 Multivitamin Tablets

Certification Status: [] Q

Effective Date: 08/02/00

Expiration Date: 12/31/10

Routing Information

Normal Route Code: MINS Manufacturing Inspection Route Type Code: []

Alt Route Code: []

Analysis Information

Average Unit Cost: []

Leadtime Quantity %: 90.00

Average Leadtime: 0.00

Frequency Days: []

Days Allowed Early: []

Frequency Number: []

Days Allowed Late: []

3. On Supplier/Item Relationships, complete the following fields and click OK:

- Effective Date
- Expiration Date
- Normal Route Code

To locate the status of the receipts routing, use the Status Inquiry program (P43250).
To view the details of a step, access the Receipt Routing Movement form.

See Also

- *Reviewing Manufacturing AAls in the Product Costing and Manufacturing Accounting Guide* for more information about automatic accounting instructions for manufacturing
- *Entering Receipts in the Procurement Guide* for detailed information about entering receipts

Processing Options for Routing/Analysis Revisions (P43090)

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)

Processing Work Orders through Super Backflush

You can use the Super Backflush program (P31123) to enter completed and scrapped quantities by operation and employee. If the quantities you enter exceed the quantity at operation, the system issues an error message. The pay point code that you define for each operation in the routing instructions determines what information is backflushed at each pay point. Pay point code B, for example, means that you issue materials and report labor at the operation. You can also choose to backflush material or labor only at a given pay point. The last operation in the routing instructions must be set up with pay point code B to ensure that all remaining materials and labor are reported before the work order is completed. The backflush procedure can perform the following transactions by operation:

- Issue parts to the work order
- Enter hours and quantities for the work order
- Enter inventory completions

In the processing options, you can set up the super backflush process to be performed either automatically or interactively. If the process is set up to run interactively, the system displays the following programs after you enter the completion information on the Super Backflush form:

- Inventory Issues (P31113)
- Hours and Quantities (P311221)
- Work Order Inventory Completions (P31114)

You can accept the information that appears in these programs, or you can revise it. For example, when the Time Entry Revisions form appears after you enter information on the Super Backflush form, you can view the labor recorded for the operation, as well as the quantity completed. The records created through Super Backflush are stored in the Work Order Time Transactions table (F31122) with a Processed Code of S. The system automatically updates the Work Order Routing table (F3112). If you add information on the Time Entry Revisions form, you must run the Hours and Quantities Update program (R31422) to update the Work Order Routing table. These records will have a Processed Code of P in the Work Order Time Transactions table.

► **To process work orders through super backflush**

From the Daily Order Reporting - Discrete menu (G3112), choose Super Backflush.

1. On Work With Order Numbers, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose the order that you want to process and click Select.

On the Super Backflush form, operations defined as pay points appear in reverse image.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Super Backflush

OK Cancel Row Tools

Order Number / Type: 451004 WO Branch/Plant: M30
 220 Touring Bike, Red Date Requested: 06/28/05
 Transaction Date: 08/27/03 Shift Code:

Quantities
 Ordered: 2000 Completed: Scrapped: U/M: EA

	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="checkbox"/>	200-901	M30	10.00					EA			D
<input checked="" type="checkbox"/>	200-901	M30	20.00	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	EA			B
<input type="checkbox"/>	200-901	M30	30.00					EA			D
<input type="checkbox"/>	200-901	M30	40.00					EA			B
<input type="checkbox"/>	200-911	M30	50.00					EA			D
<input type="checkbox"/>	200-920	M30	60.00					EA			B

3. On Super Backflush, complete the following fields:
 - Transaction Date
 - Shift Code
4. Complete the following grid fields for a paypoint operation:
 - Employee Number
 - Quantity Completed
 - Op St

If you have defined default values for the shift code, employee number and operation status in the processing options, you do not have to enter values into these fields.

5. Complete the following optional field and click OK:
 - Pay Point Status

If the pay point code for the operation indicates that material should be backflushed, the Inventory Issue Revisions form appears.

6. On Inventory Issue Revisions, accept or revise the issue quantities and click OK.

If the pay point code for the operation indicates that labor should be backflushed, the Time Entry Revisions form appears.

7. On Time Entry Revisions, review any of the following fields and click OK:

- Employee Number
- Oper #
- Ty Hrs
- Hours
- Quantity
- UM
- St

The Time Entry Revision form displays the records created in the Super Backflush program. The system updates the Work Order Routing table (F3112) with this information. On Time Entry Revision, you can add hours and quantity information.

8. On the last pay point, complete steps 3 through 7.

The Work Order Completion Detail form appears.

9. Review the completion information and click OK.

Processing Options for Super Backflush (P31123)

Defaults Tab

These processing options allow you to identify the operation status for partial and full completions, as well as default values for the work order status, employee number, and shift code.

1. Operation Status for Partial Completions.

Use this processing option to specify the default operation status for a line when the quantity is partially completed at this operation step in the routing.

2. Operation Status Code for Full Completions.

Use this processing option to specify the default operation status at the point when the quantity is fully complete.

3. Work Order Status Code

Use this processing option to specify the default status code for the work order header that the system updates after a super backflush transaction. This value always supersedes any status set by Work Order Inventory Issues (P31113), Work Order Time Entry (P311221), or Work Order Completions (P31114) programs.

4. Employee Number

Use this processing option to specify an employee number (AN8) that the system uses as the default value for the detail area on the Super Backflush form. If you leave this processing option blank, The Employee Number field in the detail area remains blank.

5. Shift Code

Use this processing option to specify a shift code that the system uses as the default value in the header area on the Super Backflush form. If you leave this processing option blank, the Shift Code field in the header area remains blank.

Process Tab

These processing options control whether the system displays the following forms for interactive processing when you run the Super Backflush program. You can also specify whether the system applies the operation yield percentage to the completed quantity.

1. Work Order Completions

Blank = Interactive Mode

1 = Blind Mode

Use this processing option to specify how the Super Backflush program (P31123) processes work order completions. If completions are processed blindly, the Super Backflush program completes the quantity that is specified on the Super Backflush grid. If you plan to complete quantities to different locations, lot or serial numbers, then process the Work Order Completions program (P31114) in interactive mode. Valid values are:

Blank

The program calls the Work Order Completions program for interactive processing.

1

The program blindly processes work order completions.

2. Work Order Issues

Blank = Interactive Mode

1 = Blind Mode

Use this processing option to specify how Super Backflush (P31123) processes inventory issues for work orders. If the Work Order Inventory Issues program (P31113) is executed blindly, the Super Backflush program issues the quantity that is specified on the Super Backflush grid, according to the issue type code. If you plan to issue quantities other than the standard calculated quantity, then process the Work Order Inventory Issues program (P31113) in interactive mode. Valid values are:

Blank

The program calls the Work Order Inventory Issues program for interactive processing.

1

The program blindly processes inventory issues to work orders.

3. Hours and Quantities Form

Blank = Interactive Mode

1 = Blind Mode

Use this processing option to specify how the Super Backflush program (P31123) processes hours and quantities transactions. If the hours and quantities transactions are processed blindly, the Super Backflush program creates standard transactions in the Work Order Time Transactions table (F31122). If you plan to enter additional hours and quantities other than the standard amount, then process the Work Order Time Entry program (P311221) in interactive mode. Valid values are:

Blank

The program calls the Hours and Quantities program for interactive processing.

1

The program blindly processes hours and quantities transactions.

4. 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

These processing options control whether the system compares the quantity at operation with the completed and scrapped quantity, and they define the work order status beyond which the Super Backflush program cannot be run for a work order.

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.

2. Work Order Status Limit

Use this processing option to specify 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 to 95 and a work order has reached a status of 95, then the system generates an error message if you attempt to run Super Backflush on that work order.

Versions Tab

These processing options control which version the system uses when the following programs are called from the Super Backflush program:

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.

2. Work Order Issues (P31113)

Use this processing option to specify which version of the Work Order Inventory Issues program (P31113) that the system uses to report material which is issued from inventory to a work order. If you leave this processing option blank, the system uses version ZJDE0001.

3. Work Order Completions (P31114)

Use this processing option to specify which version of the Work Order Completions program (P31114) that the system uses to complete manufacturing items from a work order to inventory. If you leave this processing option blank, the system uses version ZJDE0001.

4. Test Results Revisions (P3711)

Use this processing option to specify which version of the Test Results Revisions program (P3711) that the system uses when you call this program from the Super Backflush form. If you leave this processing option blank, the system uses version ZJDE0001.

5. Scheduling Workbench (P31225)

Use this processing option to specify which version of the Manufacturing Scheduling Workbench program (P31225) that the system uses when you call the program from the Super Backflush form. If you leave this processing option blank, the system uses version ZJDE0001.

6. Work Order Entry (P48013)

Use this processing option to specify which version of the Work Order Entry program (P48012) that the system uses when you call this program from the Super Backflush form. If you leave this processing option blank, the system uses version ZJDE0001.

Interoperability Tab

These processing options control the work order transaction type that the system uses for outbound processing and whether it includes a before image of the work order header.

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 processing option blank, the system does not perform export processing.

2. Work Order Header Before Image

Blank = Do not include the image

1 = Include the 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 writes the before image.

Blank

The system does not write the before image.

Completing Work Orders with Serialized Components

When you enter a completion for serialized components, you can generate a serial number for each completed item by accessing the Assembly Serial Numbers program (P3105). Another program, Serial Number Associations (P3107), is accessible only when 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. You can set the Serial No. Required field on the Item Branch/Plant Info. form (W41026A) to specify that the system verify the memo lot number and serial number.

When you complete work orders with components that are not serialized, you cannot assign serial numbers to the assemblies at completion.

When 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 - Discrete menu (G3112), choose Partial Completion.

1. On Work With Work Order Completions, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose an order number and click Select.
3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

For serialized items you can complete only one item at a time.

5. If you know the serial number, choose the Lot/Location tab and complete the following field:
 - Lot/Serial
6. If you do not know the serial number, choose Serial Numbers from the Form menu.
7. On Work With Order Serial Number, choose a number, click Select, and then go to step 11.

If a list of serial numbers does not appear, you must generate them by choosing Revisions from the Form menu.
8. 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.
9. Click OK to return the list to Work With Order Serial Numbers.
10. On Work With Order Serial Numbers, choose the serial number that you want and click Select.

11. To complete a work order at a known location other than the primary location, complete the following field and click OK:
 - Location
12. Choose Lot/SN Association from the Form menu.
13. On Serial Number Associations, choose Issued Items from the Form menu.
14. On Work With Serialized Issued Items, choose the components that you want to associate with the serialized assembly and click Select.
15. On Serial Number Associations, click OK.
16. On Work With Work Order Completion Detail, click OK.

Completing Process Work Orders

When you finish producing a process 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 (P31123) or Work Order Completions (P31114) programs to report completions. Use these programs to perform one of the following 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 that 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.

When a previous completion exists for a work order, the system displays information in the lot, grade or potency, and status fields. Also, when you enter a quantity, the system adds inventory to the lot at the grade or potency and the current status. The Work With Work Order Completions form displays completed and scrapped quantities and percent complete information for a work order.

You can perform full or partial process order completions without or without backflushing the ingredients. When you use backflushing, you report the issue transactions for ingredients that you use in a process after the co-products and by-products of the process are produced. For backflush to occur, the ingredient must be set up with an issue code that allows backflushing.

When you set a completions threshold in the processing option, the system updates the Update Status field on the Work Order Completion Detail form according to the threshold rules. When you use lot control, you can also specify a default value for the completion lot number, such as the work order number or the associated sales order number. You can override the default value on the form.

Before You Begin

- ❑ Set the appropriate processing options to access the Inventory Issues program (P4112) 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.

► To complete process orders without backflushing

From the Daily Order Reporting - Process menu (G3114), choose Partial Completion or Full Completion.

1. On Work With Work Order Completions, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose a record and click Select.
3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields for the process item:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

You can enter scrap manually for a process item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. Click OK.
6. On the Co/By Completion Revisions form, complete the following fields:
 - Quantity Completed
 - Quantity Canceled
 - Date Completed

- Secondary Qty Completed
- Location
- Lot Serial Number

7. Click OK.

► **To complete process 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 fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose a record and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work Order Completion Detail

OK Cancel Form Tools

Order Number/Type/Desc: 451012 W/O 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

Quantity Lot/Location

Date Completed: 08/27/03 % Of Order Completed: 0.00

Date Last Completed:

	Transaction Qty	UOM	Secondary Qty	UOM
Qty Completed		EA		
Qty Scrapped				
Qty Ordered	10			
Qty Completed To Date				
Qty Scrapped To Date				

3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields for the process item:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

You can enter scrap manually for a process item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. Click OK.
6. On the Co/By Completion Revisions form, complete the following fields:
 - Quantity Completed
 - Quantity Canceled
 - Date Completed
 - Secondary Qty Completed
 - Location
 - Lot Serial Number

7. 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.

8. On Inventory Issue Revisions, review the issue quantities.
9. To issue the material, click OK.

Setting the Resource Percent for the Co-Products and By-Products

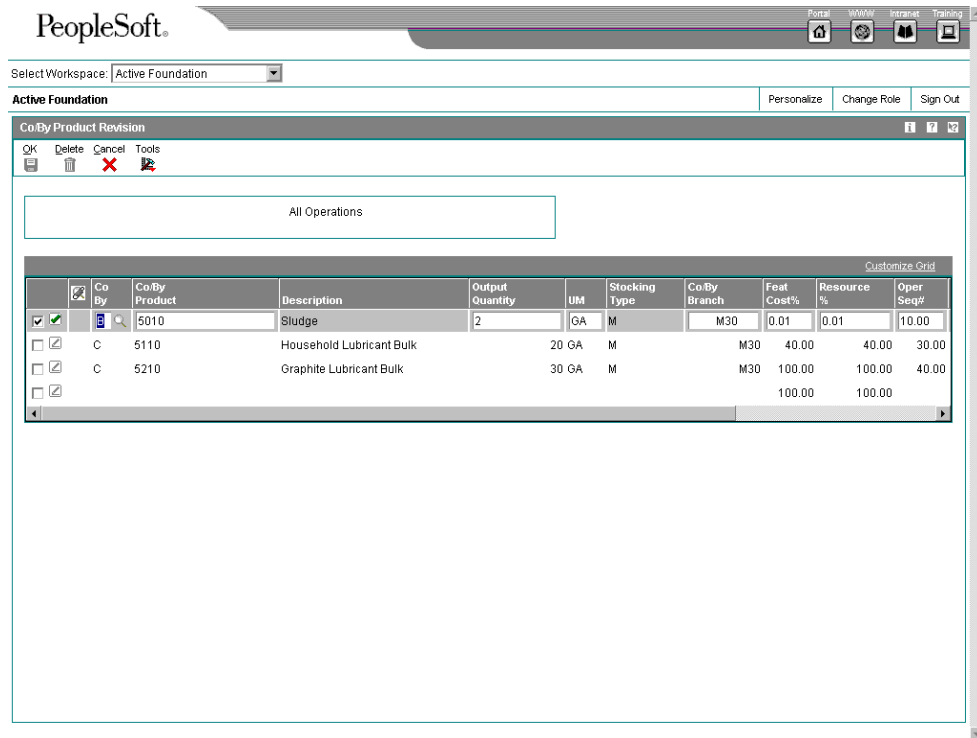
Use the Co/By Product Revision form to indicate what percent of the ingredients should be issued separately to co-products and by-products.

► **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.



4. On Co/By Product Revision, complete the following optional field and click OK:
 - Resource %

Releasing Sales Backorders During Completions

You can create a sales order in the Sales Order Management system that automatically generates a work order to supply the ordered item (sales order with line type W). If the requested date of this sales order does not allow sufficient time for the item to be manufactured, given the item's lead time, the order quantity can be identified as backordered. In this case, you can choose to run the Release Backorders - Online program (P42117) during work order completion to release the backorder for the item.

Before You Begin

- ❑ Set processing options to call the Backorder Release program (P42117) and identify the version 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 fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose an order number and click Select.
3. On Work Order Completion Detail, choose the Quantity tab and complete the following fields for the process item:
 - Quantity Completed
 - Secondary Qty Completed

Note

You must complete the Secondary Quantity Completed field if the item you are completing is set up with dual units of measure in the item master record.

4. Complete the following optional fields:
 - Quantity Scrapped
 - Date Completed

Note

You can enter scrap manually for a process item. You can also set up the system to calculate scrap automatically by using the scrap or yield percentage values defined in the bill of material and routing.

5. Click OK.
6. On the Co/By Completion Revisions form, complete the following fields:
 - Quantity Completed
 - Quantity Canceled
 - Date Completed
 - Secondary Qty Completed
 - Location
 - Lot Serial Number
7. Click OK.

8. 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.

9. Click OK.

Processing Process Orders through Super Backflush

You can use the Super Backflush program (P31123) to enter completed and scrapped quantities by operation and employee. If the quantities that you enter exceed the quantity at operation, the system issues an error message. The pay point code that you define for each operation in the routing instructions determines what information is backflushed at each pay point. Pay point code B, for example, means that you issue material and report labor at the operation. You can also choose to backflush material or labor only at a given pay point. The last operation in the routing instructions must be set up with pay point code B to ensure that all remaining materials and labor are reported before the process order is completed. The backflush procedure can perform the following transactions by operation:

- Issue parts to the process order
- Record hours and quantities against the process order
- Record inventory completions

In the processing options, you can set up the super backflush process to be performed either automatically or interactively. When you set up the process to run interactively, the system displays the following programs after you enter the completion information on the Super Backflush form:

- Inventory Issues (P31113)
- Hours and Quantities (P311221)
- Work Order Completions (P31114)

You can accept the information that appears on the forms, or you can revise it. For example, when the Time Entry Revisions form appears after you enter information on the Super Backflush form, you can review the labor recorded for the operation, as well as the quantity completed. The records created through Super Backflush are stored in the Work Order Time Transactions table (F31122) with a Processed Code of S. The system automatically updates the Work Order Routing table (F3112). If you add information on the Time Entry Revisions form, you must run the Hours and Quantities Update program (R31422) to update the Work Order Routing table. These records will have a Processed Code of P in the Work Order Time Transactions table.

When the system has an intermediate for the operation, all form quantities appear in the unit of measure for the intermediate. When the system completes the quantity, it deducts the quantity from the operation and adds it to the next operation.

► **To process process orders through super backflush**

From the Daily Order Reporting - Process menu (G3114), choose Super Backflush.

1. On Work With Order Numbers, complete the following fields and click Find:
 - Skip to Order Number
 - Branch/Plant
2. Choose the order that you want to process and click Select.
On the Super Backflush form, operations defined as pay points appear in reverse image.

3. On Super Backflush, complete the following fields:

- Transaction Date
- Shift Code

4. Complete the following grid fields for a paypoint operation:

- Employee Number
- Quantity Completed
- Op St

If you have defined default values for the shift code, employee number and operation status in the processing options, you do not have to enter values into these fields.

5. Complete the following optional field and click OK:

- Pay Point Status

If the pay point code for the operation indicates that material should be backflushed, the Inventory Issue Revisions form appears

6. On Inventory Issue Revisions, accept or revise the issue quantities and click OK.

If the pay point code for the operation indicates that labor should be backflushed, the Time Entry Revisions form appears.

7. On Time Entry Revisions, review any of the following fields and click OK:

- Employee Number
- Oper #
- Ty Hrs
- Hours

- Quantity
- UM
- St

The Time Entry Revision form displays the records created in the Super Backflush program. The system has already updated the Work Order Routing table with this information. You can add hours and quantity information here.

8. On the last pay point, complete steps 3 through 7.
The Work Order Completion Detail form appears.
9. Review the completion information and click OK.
10. On the Co/By Completion Revisions form, review the following fields:
 - Quantity Completed
 - Quantity Canceled
 - Date Completed
 - Secondary Qty Completed
 - Location
 - Lot Serial Number
11. Click OK.

Completing Rate Schedules

Use the Completions Workbench program (P3119) to enter rate schedule completions, issue parts, and enter hours and quantities for the rate. Depending on how you set the processing options, the Inventory Issue Revisions and Time Entry Revisions forms appear as you complete rate schedules.

When you perform a completion, the system enters the inventory records as they are 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 the Test Results Revisions form for items that require testing.

Before You Begin

- Set the processing options to access the Inventory Issues (P31113) and Hours and Quantities programs (P311221).

► To complete rate schedules

From the Daily Processing - Repetitive menu (G3115), choose Completions Workbench.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Completions Workbench

Item Number: Branch/Plant: M30

Line/Cell: R-A1 Frame Line 1 Order Type: 8C

Effective Date From: 08/27/03 Effective Date Thru: 08/27/03

From Status: 10 Thru Status: 95

Item Number	Item Number Description	Quantity Completed	Quantity Scrapped	Unit Of Measure	Secondary Qty Completed	Sec UOM	Date Complete	Shift	Quantity
ITEM A-R	Repetitive Item Example			EA			08/27/03		
ITEM A-R	Repetitive Item Example			EA			08/27/03		
ITEM A-R	Repetitive Item Example			EA			08/27/03		

1. On Completions Workbench, complete the following fields and click Find:

- Branch/Plant
- Order Type
- Item Number
- Line/Cell
- Effective Date From
- Effective Date Thru

2. Complete the following fields:

- Quantity Completed
- Secondary Qty Completed
- Date Complete
- Shift

3. Complete the following optional fields and click OK:
 - Quantity Scrapped
 - Effective From Date
 - Location
 - Lot/Serial Number
 - Employee
4. On Super Backflush, click OK.
5. On Inventory Issue Revisions, click OK.
6. On Time Entry Revisions, review the following fields and click OK:
 - Employee Number
 - Quantity
 - St
7. On Work Order Completion Detail, click OK.

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 (P01012)

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

After you have processed work orders or rate schedules, you can close, delete, or purge work orders and rate schedules from the system, review component information, such as usability, availability, 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 (P30204).

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 a record of the work order or rate schedule and its progress, you should close the work 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 use one of the following methods to deactivate work orders or rate schedules that you no longer use:

Change its status to closed When you change the status of a work order or rate schedule to closed, the system identifies the work 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 it 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.

Before you delete or purge a work order or rate schedule from the system, you must first complete the work order and then delete the parts list and routing instructions that are attached to the order.

Additionally, you cannot delete a work order or rate schedule if any of the following is true:

- 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 entered for the work order or rate schedule

When a work order is in process, J.D. Edwards recommends that you report completed and scrapped quantities for it before you delete it.

Purge it 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.

Reviewing Work Order and Rate Schedule Status

Use the Production Status program (P31226) to review the status of all rate schedules and work orders by work center or line, work order number, rate schedule number, or item number, as qualified by the status and date ranges. 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. The program shows historical information, as well as open rates and work orders.

From the Production Status program, you can access the Production History program (P31227) where you can review the transactions for each entry of completions and scrap at an operation. The history program shows all transactions that make up the scrapped quantities and the details of these transactions.

► To review work order and rate schedule status

From the Daily Processing - Repetitive menu (G3115), choose Production Status.

Item Number	Description	Order Number	Type	Op St	Start Date	Request Date	Oper Seq	Quantity Remaining	UOM	Quantity at Operation
3520	Manufacturing Item 3	452550	WO	30	05/27/05	05/30/05	10.00	0	EA	
3520	Manufacturing Item 3	452568	WO	30	05/27/05	05/30/05	10.00	0	EA	
3520	Manufacturing Item 3	452550	WO	30	05/30/05	05/31/05	20.00	0	EA	
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/Type

3. To narrow your search to orders or schedules by date, complete the following fields:
 - Effective Date From
 - Effective Date 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 From
 - Operation Status Thru
5. Review the information and click Cancel.

Processing Options for Production Status (P31226)

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. Remaining Quantity

Blank = Include Cancelled/Scrapped quantity

1 = Exclude 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.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation

Work Order Details

OK Cancel Form Tools

Order No/Type: 451004 WO Branch/Plant: M30

WO Desc: Touring Bike, Red W.O. Scheduling

Item No.: 220

Select Tab: Status & Type

Sts Comm.:

Bill Type: M Standard Manufacturing Bill

Rtg. Type: M Standard Manufacturing Routing

Status: 40 Started Labor or Material

Type: S Shop Order

Freeze Code: N Do not freeze the order.

3. On Work Order Details, choose the Status & Type tab, type 99 in the following field, and then click OK:
 - Status

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 Batch Rate Close program (R3191) to close rate schedules when either of the following conditions applies:

- The status is less than or equal to the value specified in the processing options
- The effective through date is less than or equal to the date specified in the processing options

When you close rates, the system performs the following steps:

- Purges the rate schedule data from the Line/Item Relationship Master table (F3109)
- Release the commitment of any quantities for the applicable rates

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 Purge Orders program (R4801P) deletes selected work orders or rate schedules from your system. The system purges the 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 codes. When you need to purge work orders or rates schedules that contain information that you might want to retain, you can save the purged records in a separate table.

You use the processing option for the Purge Orders program to specify whether you want to save the records that you purge in a special purge library. The system names this library JDE, followed by the current system date (without separators). For example, if you purge the records on January 1, 2005, the purge library is named JDE010105. 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 that are 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 *Work Orders in Accounting* in the *Product Costing and Manufacturing Accounting Guide* for information about how to complete the accounting.

Processing Options for Purge Orders (R4801P)

Process Tab

This processing option controls whether the records that you choose to purge are saved to the appropriate purge tables.

Blank Do not Save Purged Records

1 Save Purged Records

Use this processing option to specify whether the records you want to purge will be saved in the following purge-related tables: F1307P, F3102S, F3105S, F3111S, F3112S, F31122S, F31171S, F31172S, F4801S, F4801ST, F4802S, and F48311S. Valid values are:

1

Save the records.

Blank

Do not save the records.

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 usability, availability, 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.

Reviewing Part Usability

Use the Part Usability program (P30212) 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. You can use this program to determine how much of a parent item 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 Usability.

1. On Work With Usability, complete the following fields and click Find:
 - Branch/Plant
 - Component
 - Quantity
2. To filter the display by lot number, potency or grade, complete one of the following optional fields:
 - Lot/Serial
 - Grade
 - Potency
3. Review the following fields and click Close:
 - Item Number
 - Prod. QTY
 - Batch Quantity
 - Type

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 Master (P4101)

Item Availability (P41202)

Enter the version to be used for this program. If left blank, version 'ZJDE0002' is used.

BOM Inquiry (P30200)

Enter the version to be used for this program. If left blank, version 'ZJDE0004' is used.

Parts Availability (P30200)

Reviewing Summary Availability

Use the Summary Availability program (P41202) to verify 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 for 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 field and click Find:
 - Item Number
2. If you want to view availability for a particular branch, complete the following field:
 - Branch/Plant
3. Review the following fields:
 - P S
 - Location
 - On Hand
 - Committed
 - Available
 - On Receipt
4. To review detailed information about item availability at a particular branch, choose a record, and then choose Detail Avail from the Row menu.
5. On Detail Availability, review the fields that provide detail information about committed and other quantity types, and then click Cancel to return to Work With Item Availability.
6. Click Close.

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
1 = Truncate information in the grid
2 = Round up

6. Customer Self-Service

Blank = Bypass Customer Self-Service functionality
1 = Activate Shopping Cart mode
Lot Options

1. Display Percent of Life Remaining

2. Display Number of Days Remaining

3. Calculation Date

Reviewing Item Ledger Information

Use the Item Ledger (The CARDEX) program (P4111) 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 issues and completions
- 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.

The screenshot shows the 'Item Ledger Detail' window in PeopleSoft. The window title is 'Item Ledger Detail' and it has a menu bar with 'Cancel', 'Form', and 'Tools'. The window is divided into several sections:

- Branch/Plant:** M30
- Item Number:** 220 (Item Name: Touring Bike, Red)
- Location:** 1 A 2 (Lot/Serial:)
- Quantity:** 134
- Secondary Quantity:**
- Unit Cost:** 520.0324
- Extended Cost:** 69684.34
- Lot Status Code:**
- Approved:**
- Lot Potency:** 0.000
- Lot Grade:**
- Document:** 3600 (IA) 00200
- J/E Line No.:** 3.0
- G/L Date:** 06/01/05
- Batch Number:** 3069
- Order Number:** 0
- Line Number:** 2,000

3. On Item Ledger Detail, review the information that appears and click Cancel.

Processing Options for Item Ledger Inquiry (CARDEX) (P4111)

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 sequential 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 Dispatch List program (P31220) 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, status hours, and quantities for work orders.

Processing options allow you to define default from and through status and date values for the review. You can also specify the versions that the system uses when you access other programs, such as the Parts List Inquiry program (P3121).

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 entering actual quantities on the Time Entry Revisions form (W311221C) and running the Hours and Quantities Update program (R31422).

► **To review dispatch list information**

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

1. On Work With Operation Dispatch, complete the following field and click Find:
 - Work Center
2. Choose an order number and click Select.

PeopleSoft

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Operation Dispatch Detail Revisions

OK Cancel Tools

Order Number/Type 452306 WO Forklift

Op Status Op Seq 10.00 Start Date 04/20/05

WO Status 40 WO Type Rqstd Date 04/27/05

Rmng Run Mch Rmng Qty 1 Std Mch Hrs

Rmng Run Lab 0.25 Std Labor Hrs 0.25

Rmng Setup Hrs Std Setup Hrs

Item Number 6000 Forklift

Supplier

PO Number SO Num. 00002588 Tool ID

PO Type SO Type 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 Tab

These processing options control the default settings for status and days for the inquiry.

From Status

Use this processing option to specify the from status (UDC 31/OS) on the Work with Operation Dispatch form. The from status specifies the beginning date for the selection of work order information.

Thru Status

Use this processing option to specify the thru status (UDC 31/OS) on the Work with Operation Dispatch form. The thru status specifies the end date for the selection of work order information.

Prior to today's date for the From Date

Use this processing option to specify the from date on the Work with Operation Dispatch form. You can specify a from date prior to the current date by entering the number of days that the system must subtract from the current date. For example, if the current date is 6/15 and you want the system to use 6/10 as the from date, you enter 5. The system subtracts five days and sets the from date to 6/10. If you leave this processing option blank, the system uses the current date as the from date.

Note: The From Date/Period specifies that the system displays transactions beginning with this date or period. Totals are calculated for the transactions that are displayed.

After today's date for the Thru Date

Use this processing option to specify the thru date on the Work with Operation Dispatch form. You can specify a thru date later than the current date by entering the number of days that the system adds to the current date. For example, if the current date is 6/15 and you want the system to use 6/20 as the thru date, you enter 5. The system adds five days and sets the thru date to 6/20. If you leave this processing option blank, the system uses the current date as the thru date.

Note: The Thru Date/Period specifies that the system displays transactions ending with this date or period. Totals are calculated for the transactions that are displayed.

Versions Tab

These processing options control the versions that the system uses when the following programs are called from the Dispatch List program.

1. Work Order Processing (P48013)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you choose the Work Order Entry program (P48013) from the Row menu on the Work With Operation Dispatch form. If you leave this processing option blank, the system uses version ZJDE0001.

2. Work Order Routing (P3112)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you choose the Work Order Routing program (P3112) from the Row menu on the Work With Operation Dispatch form. If you leave this processing option blank, the system uses version ZDJE0001.

3. Work Order Parts List (P3111)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you choose the Work Order Parts List program (P3111) from the Row menu of the Work With Operation Dispatch form. If you leave this processing option blank, the system uses version ZDJE0001.

4. Work Order Parts Inquiry (P3121)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you choose the Work Order Parts List Inquiry program (P3121) from the Row menu on the Work With Operation Dispatch form. If you leave this processing option blank, the system uses version ZJDE0001.

5. Operation Dispatch Inquiry (P31220)

Blank = ZJDE0001

Use this processing option to specify the version that the system uses when you choose the Operation Dispatch Inquiry program (P31220) from the Row menu on the Work With Operation Dispatch form. If you leave this processing option blank, the system uses version ZJDE0001.

6. Work Order Quantity (P31121)

Blank = ZJDE0001

7. Work Order Hours (P31122)

Blank = ZJDE0001

Process Tab

This processing option controls whether the remaining quantity includes the scrapped or cancelled quantity.

1. Quantity Calculation

Blank = Remaining Quantity includes quantity scrapped/cancelled

1= Remaining Quantity does not include quantity scrapped/cancelled

Use this processing option to specify whether the system subtracts the quantity scrapped or canceled from the remaining quantity. Valid values are:

Blank

Include the quantity scrapped or canceled in the remaining quantity.

1

Subtract the quantity scrapped or canceled from the remaining quantity.

Reviewing Production History

To solve problems, make decisions, and answer questions, you might need to review the historical information about your work orders or rate schedules. When you review the production history in the Production History program (P31227), you can review information such as date updated and the quantities ordered, shipped, and cancelled for a particular work center.

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.

The screenshot shows the PeopleSoft interface for the 'Work With Production History' form. The form is titled 'Work With Production History' and includes a toolbar with 'Select', 'Find', 'Close', 'Row', and 'Tools' buttons. The search criteria section contains the following fields:

- Work Center/Line: 200-901
- Item Number: 220 (Touring Bike, Red)
- Order Number/Type: []
- Operations Seq: 10.00
- Shift Code: 1
- Branch/Plant: M30
- Effective From: 09/27/03
- Effective Thru: 09/25/03

Below the search criteria is a table with the following columns:

Oper Seq#	Date Updated	Shift Code	Order Number	Or Ty	Quantity Ordered	UM	Quantity Shipped	Quantity Canceled	Accumulated Run Labor	Accumulated Qus Shipped

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/Type

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 the Line Dispatch List program (P3159) to view the planned and remaining quantities for all items that are scheduled for a particular production line.

► To review production line quantities

From the Daily Processing - Repetitive menu (G3115), choose Line Dispatch List.

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 the Line Schedule Review program (P3152) to review the schedule of the production lines for the family of items produced. If items are produced on multiple production lines, use this program to review production across lines while staying within the capacity of each line. You can also review the information graphically.

► To review production across lines

From the Daily Processing - Repetitive menu (G3115), choose Line Schedule Review.

1. On Line Schedule Review, complete the following fields and click Find:
 - Line/Cell
 - Branch/Plant
 - Date From
 - Thru
2. Review the information.

Processing Options for Line Schedule Review (P3152)

Defaults Tab

These processing options specify default values for the Document Type and Shift fields.

1. Document Type (Default is 'SC')

Use this processing option to specify the default document type associated with the schedule quantity detail. 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 Code form. If you leave this field blank, the system uses SC.

2. Shift (Optional)

Use this processing option to specify the default shift code associated with the schedule quantity detail. Shift code is a user defined code (00/SH) that identifies daily work shifts. Enter the shift code to use as the default value or choose it from the Select User Define Code form.

Versions Tab

This processing option specifies the version of the Rate Revisions program (P3109) that the Line Schedule Review program uses.

1. Rate Revisions (P3109)

Use this processing option to specify which version the system uses when you choose the row exit to the Enter/Change Rate Schedule program (P3109) from the Line Schedule Review form. If you leave this processing option blank, the system uses the ZJDE0001 version of the Enter/Change Rate Schedule program.

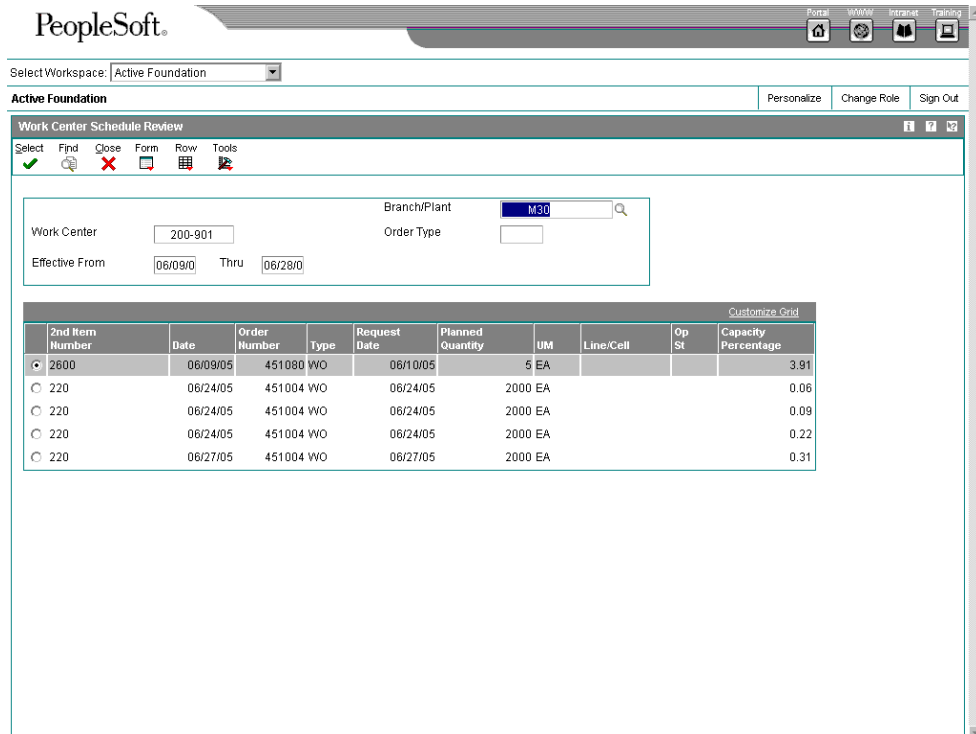
Versions control how the Enter/Change Rate Schedule program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

Reviewing Work Center Loads

Use the Work Center Schedule Review program (P31224) to review the rate schedule load and the work order load for a work center. You can review a work center load for a day, a week, or a month. You can also enter a specific date range to review 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 whether to include loads that are generated by a work order before or after loads that are generated by a rate schedule.

► **To review work center loads**

From the Daily Order Preparation - Discrete menu (G3111), 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 in the detail area.

Processing Options for Work Center Schedule Review (P31224)

Defaults Tab

This processing option controls the default document type for the records that appear on the form.

1. Document Type

A specific document type

Blank = No default

Use this processing option to specify the default document type associated with the work order or rate schedule. 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 a default value or choose it from the Select User Define Code form.

Display Options Tab

This processing option controls the time frames for which work center load information appears on the form.

1. Subfile Dates

1 = Monthly

2 = Weekly

3 = Daily

Use this processing option to specify how the system calculates and displays the loads. Valid values are:

1 The system calculates and displays monthly loads.

2 The system calculates and displays weekly loads.

3 The system calculates and displays daily loads.

Blank The system calculates and displays daily loads.

WO Processing Tab

These processing options control the work center information that appears on the form.

1. Include Work Order Generated Loads

1 = Before Rate loads

2 = After Rate loads

Blank = No Work Order loads

Use this processing option to specify whether the system includes work order loads before rate schedules, after rate schedules, or not at all. Valid values are:

1 The system generates work order loads before rate schedules.

2 The system generates work order loads after rate schedules.

Blank The system does not recognize work order loads.

2. From Operation Status

Include as an active operation

Blank = No specific status to include

Use this processing option to specify the status the system uses for the work orders or rate schedules as the routing steps are completed. Operation status is a user defined code (31/OS) that describes the status of a work order or rate schedule. Enter the operation status to use as the default value or choose it from the Select User Define Code form.

3. To Operation Status

Include as an active operation

Blank = No specific status to include

Use this processing option to specify the operation status the system uses for the work orders or rate schedules as the routing steps are completed. Operation status is a user

defined code (31/OS) that describes the status of a work order or rate schedule. Enter the operation status to use as the default value or choose it from the Select User Define Code form.

Versions Tab

This processing option controls the version that the system uses when you call the following program:

1. Rate Revisions (P3109)

Use this processing option to specify the version the system uses when you choose the row exit to the Enter/Change Rate Schedule program (P3109) from the Work Center Schedule Review program (P31224). If you leave this field blank, the system uses the ZJDE0001 version of the Enter/Change Rate Schedule program.

Versions control how the Enter/Change Rate Schedule program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

Reviewing Process Orders

For process manufacturing, use the Process Order Inquiry program (P31240) to display the following information for a process work order:

- Each operation of the process
- The ingredients lists
- A list of the coproducts and by-products
- The existing intermediates of a work order, by operation

From this program, you can perform the following tasks:

- Access the Enter/Change Order program (P48013) and make changes, as necessary
- 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

► To review process orders

From the Daily Order Preparation - Process menu (G3113), choose Process Order Inquiry.

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

Select Workspace: Active Foundation

Active Foundation Personalize Change Role Sign Out

Work with Ingredients and Co/By-Products

Find Close Form Row Tools

Order Number/Type: 451469 WVO Branch/Plant: M30

Item Number: 5000 Lubricant Process

Quantity Ordered: 1 EA

Quantity Completed:

Quantity Scrapped:

Operations Sequence Number: 10.00

2nd Item Number	Description	Qty Ordered/Output	Qty Issued/Completed	UM	Stocking Type	Co By	Item Number	3rd Item Number
<input type="checkbox"/> 5001	Oil		50	GA	P		60716 5001	
<input type="checkbox"/> 5010	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, members of your organization can do the following:

- Personnel in sales order entry can provide customers with an expected order ship date.
- Purchase agents can evaluate future orders and stocking needs.
- Warehouse personnel can plan warehouse resource around receipts and order picking.

You can access supply and demand information from the Shop Floor Management, Inventory Management, and Sales Order Management systems. If you are using Supply Chain Management 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 Inquiry program (P4021) to review demand, supply, and available quantities for a specific item. You can also access the following programs to confirm detail information:

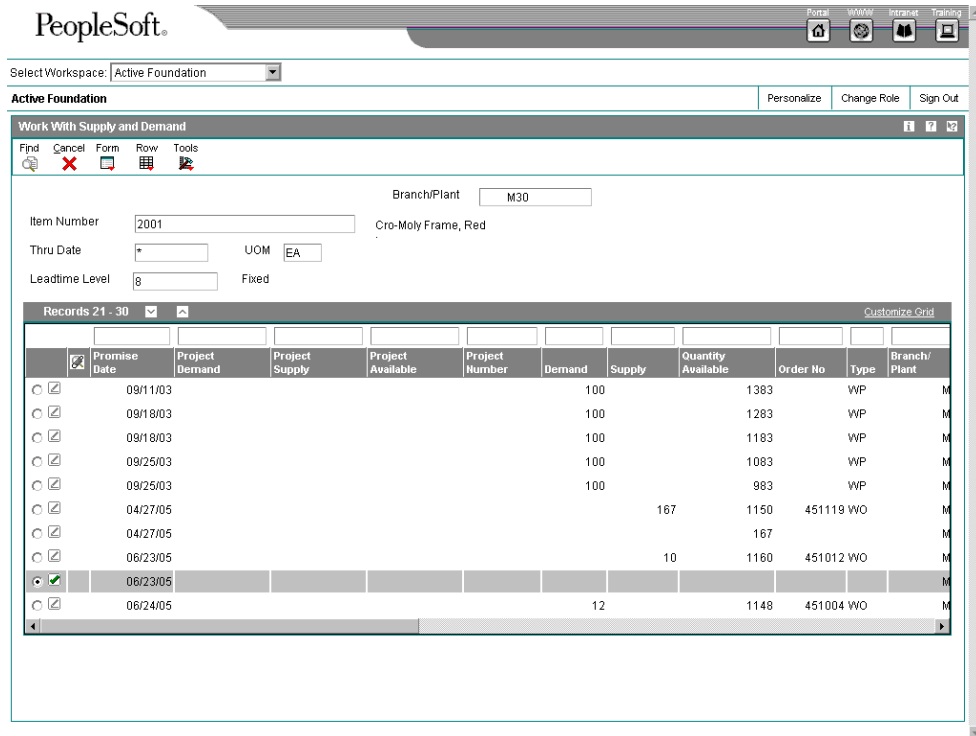
- Manufacturing Scheduling Workbench (P31225)
- Parts Availability (P30200)
- MRP/MPS Detail Message Revisions (P3411)
- Time Series (P3413)
- Pegging Inquiry (P3412)
- Item Availability (P41202)
- Customer Service Inquiry (P4210)
- Item Branch/Plant (P41026)

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 dates or order information represent current availability by branch/plant location or lot.

► To review supply and demand information

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



- On Work With Supply and Demand, complete the following fields and click Find:
 - Branch/Plant
 - Item Number
- Review the information that appears and click Close.

Processing Options for Supply/Demand Inquiry (P4021)

Process Tab

These processing options control processing for the Supply/Demand Inquiry program, such as which quantities and document types, as well as forecast and planning data, are included in the inquiry.

- Deduct Safety Stock From Available Quantity

Blank = Do Not Deduct

1 = Deduct Safety Stock

Use this processing option to specify whether the system displays the safety stock line and

decreases the safety stock from the available quantity. Valid values are:

Blank The system does not deduct safety stock.

1 The system deducts safety stock.

2. Receipt Routing Quantities Considered As On Hand

Blank = Do Not Consider

1 = Consider As On Hand

3. Supply/Demand Inclusion Rules

Use this processing option to specify the supply and demand inclusion rules version for the system to use. These rules define the order type, line type and line status. Inclusion rule version is a user defined code (40/RV) that identifies the version to use for processing. Enter an inclusion rule to use as the default value or choose it from the Select User Define Code form.

4. Subtract Expired Lot Quantities

Blank = Do Not Subtract

1 = Subtract Expired Lots

Use this processing option to specify whether the system deducts the expired lot quantities from the available quantity. Valid values are:

Blank The system does not reduce the available quantity.

1 The system reduces the available quantity.

This processing option does not work with available to promise lines. If you choose value 1 in this processing option, you must set the Available to Promise Line Flag processing option, under the Process 1 Tab, to either blank or 2.

5. Enable Engineering Project Management (EPM)

Blank = Do Not Enable EPM

1 = Enable EPM Functionality

Use this processing option to specify whether the system enables Engineering Project Management (EPM) functionality. Valid values are:

Blank

Do not enable EPM functionality.

1

Enable EPM functionality.

6. Include Past Due Supply In Quantity Available

Blank = Do Not Include

1 = Include Past Due Supply

Use this processing option to specify if past due quantities are considered while calculating available quantity. Valid values are:

Blank

Do not include past due quantities.

1

Include past due quantities.

7. Rate Based Schedule Type

Blank = Do Not Include Rate Based Items

Use this processing option to specify the rate-based schedule type for the system to display. Rate-based schedule type is a user defined code (31/ST)

that identifies the schedule type. Enter the 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 display any rate-based schedules.

8. Include MPS/MRP/DRP Planned Orders

Blank = Do Not Include

1 = Include Planned Orders

Use this processing option to specify whether the system displays planned orders from MPS/MRP/DRP generations. Valid values are:

Blank The system does not display planned orders.

1 The system displays planned orders.

9. Forecast Types (5 Types Maximum)

Use this processing option to specify which forecast types, up to five, that the system includes in the inquiry. If you leave this field blank, the system does not include any forecast records. Enter multiple forecasts as follows: To enter 01, 02, and BF, type 0102BF.

10. Days From Today To Include Forecast

Blank = Include From Today

Use this processing option to specify the number of days (+ or -) from the system date that you want the system to include forecast records. If you leave this field blank, the system uses the system date.

11. Exclude Bulk Items

Blank = Do Not Exclude

1 = Exclude Bulk Items

Use this processing option to specify whether the system displays bulk stocking type records. Valid values are:

Blank The system displays bulk stocking type records.

1 The system does not display bulk stocking type records.

12. Include Past Due Rates as a supply

Blank = do not include

1 = include

Use this processing option to specify whether the system considers open quantity from past due rate orders as supply.

Note: When you enter 1, the system includes past due orders in the rate schedule unadjusted (+RSU) and the rate schedule adjusted (+RS) line of the Master Planning Schedule - Multiple Plant program (R3483). Valid values are:

Blank

Do not use open quantity from past due rate orders as supply.

1

Use open quantity from past due rate orders as a supply.

13. Forecast Start Date

Blank = System Date

1 = Start Date Of Current Forecast Period

Use this processing option to determine the Start Date. Valid values are:

Blank

Use the System Date.

1

Use the Start Date of the current forecast period.

Note: If you enter a 1, the Enable Manufacturing Project Management processing option must be blank.

14. Lot Hold Codes (up to 5)

Blank = include no held lots in calculation of on-hand inventory

* = include all held lots in calculation of on-hand inventory

Use this processing option to specify the lots to be included in the calculation of on-hand inventory. You can enter a maximum of 5 lot hold codes (41/L).

blank include no held lots in calculation of on-hand inventory

* include all held lots in calculation of on-hand inventory

Display Tab

These processing options control how certain information appears on the Work With Supply and Demand form. For example, a processing option controls whether quantities appear after they are converted to standard potency.

1. Convert Quantities To Standard Potency

Blank = Do Not Convert

1 = Convert To Standard Potency

Use this processing option to specify whether the system converts quantities to the standard potency. Valid values are:

Blank The system does not convert the quantities.

1 The system converts the quantities.

2. Display ATP Line

Blank = Do Not Display

- 1 = Display ATP Line
- 2 = Display CATP Line

Use this processing option to specify whether the system displays an available to promise line, a cumulative available to promise line, or neither. Valid values are:

Blank The system does not display either line.

- 1 The system displays the available to promise line.
- 2 The system displays the cumulative available to promise line.

If you choose to display the available to promise line (value 1) in this processing option, you cannot use the Display 3 Tab, Reduce Expired Lot Quantities processing option (above).

3. Summarize All In Receipt Routing Steps

Blank = Do Not Summarize

- 1 = Summarize

Use this processing option to specify whether the system summarizes all quantities for the In Receipt routing steps into one line. Valid values are:

Blank The system does not summarize.

- 1 The system summarizes the In Receipt routing steps.
-

4. Summarize Item Balance Quantity Records

Blank = Do Not Summarize

1 = Summarize

Use this processing option to specify whether the system summarizes all the quantities in the item location records into one line. Valid values are:

Blank The system does not summarize.

1 The system summarizes all the quantities in the item location records.

5. Display Data In Window Mode

Blank = Do Not Display

1 = Display In Window Mode

Use this processing option to specify whether the system displays the Supply & Demand Inquiry program (P4021) in the window format if called from another program. Valid values are:

Blank The system displays the program in the full form format.

1 The system displays the program in the window format.

Versions Tab

These processing options control the versions that the system uses when you call the following programs:

1. Purchase Order Entry (P4310)

Use this processing option to specify the version of the Purchase Order Entry program (P4311) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Purchase Order Entry program.

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.

2. Purchase Order Inquiry (P4310)

Use this processing option to specify the version of the Purchase Order Inquiry program (P430301) that the system uses when call from row and form exits from the Work With Supply and Demand 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 options to specific versions to meet your needs.

3. Sales Order Entry (P4210)

Use this processing option to specify the version of the Sales Order Entry program (P4211) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Sales Order Entry program.

Versions control how the Sales Order Entry program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

4. Sales Order Inquiry (P4210)

Use this processing option to specify the version of the Sales Order Inquiry program (P42045) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Sales Order Inquiry program.

Versions control how the Sales Order Inquiry program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

5. Scheduling Work Bench (P31225)

Use this processing option to specify the version of the Scheduling Workbench program (P31225) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Scheduling Workbench program.

Versions control how the Scheduling Workbench program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

6. MPS/MRP/DRP Pegging Inquiry (P3412)

Use this processing option to specify the version of the MPS/MRP/DRP Pegging Inquiry program (P3412) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Pegging Inquiry program.

Versions control how the Pegging Inquiry program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

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

Use this processing option to specify the version of the MPS Time Series program (P3413) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the MPS Time Series program.

Versions control how the MPS Time Series program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

8. MPS/MRP/DRP Msg Detail (P3411)

Use this processing option to specify the version of the MPS/MRP Detail Message Revisions program (P3411) that the system uses when call from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the MPS/MRP Detail Message Revisions program.

Versions control how the MPS/MRP Detail Message Revisions program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

9. Bill of Material Inquiry (P30200)

Use this processing option to specify the version of the Bill of Material Inquiry program (P30200) program that the system uses when called from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Bill of Material Inquiry program.

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

10. Item Branch (P41026B)

Use this processing option to specify the version of the Item Branch program (P41026) that the system uses when you access the program from row and form exits on the Work With Supply and Demand form. If you leave this option blank, the system uses the ZJDE0001 version of the Item Branch program. Versions control how the Item Branch program displays information.

11. Mfg WO Processing (P48013)

Use this processing option to specify the version of the Manufacturing Work Order Processing program (P48013) program that the system uses when called from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Manufacturing Work Order Processing program.

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

12. Enter/Change Rate Schedule (P3109)

Use this processing option to specify the version of the Enter/Change Rate Schedule program (P3109) program that the system uses when called from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Enter/Change Rate Schedule program.

Versions control how the Enter/Change Rate Schedule program displays information. Therefore, you might need to set the processing options to specific versions to meet your needs.

13. Item Availability (P41202)

Use this processing option to specify the version of the Item Availability program (P41202) that the system uses when called from row and form exits from the Work With Supply and Demand form. If you leave this field blank, the system uses the ZJDE0001 version of the Item Availability program.

Versions control how the Item Availability program displays information.

Therefore, you might need to set the processing options to specific versions to meet your needs.

Printing Supply and Demand Information

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

The Supply and Demand report (R4051) 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; for example, you can decide which quantities to include and what date range to consider for the report.

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 different versions of the Bill of Material Comparison program (P30204), or by reviewing reports that provide different views of the components that are listed on the bill of material. Use the comparisons to show the differences that exist between the parts lists or bill of material for two different orders or items.

Comparing Bills of Material and Parts Lists

Use the Bill of Material Comparison program (P30204) 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. You can change the display from the View menu on the Work With Comparisons form. You use the processing options to define whether the program allows you to compare bills of material or parts lists. You can access different versions of this program that are defined by these processing option settings.

► To compare two parts lists

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

1. On the Work With Comparisons form, choose the PL to PL tab, and then complete the following field for the first parts list:
 - Order Number
2. Complete the following optional fields for the first parts list:
 - Work Center
 - Dispatch Group
3. Complete the following field for the second parts list and click Find:
 - Order Number
4. On Display Comparisons, review the information and click Close.

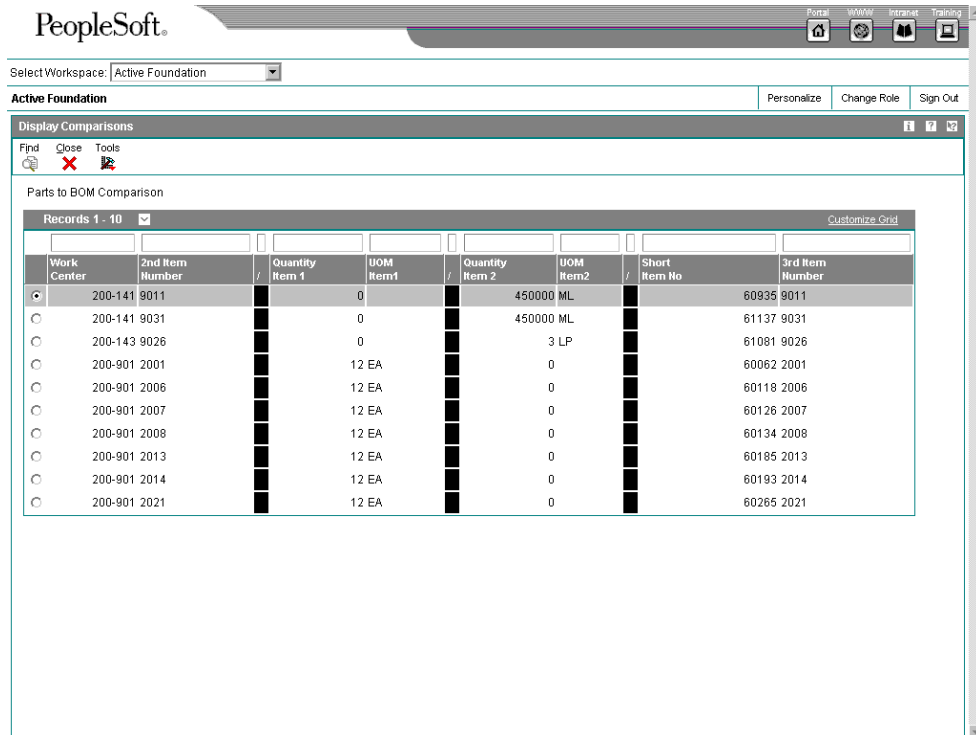
► To compare a bill of material to a parts list

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

1. On Work With Comparisons, choose the PL to BOM tab and complete the following field for the parts list:
 - Order Number

2. Complete the following fields for the bill of material click Find:

- Item Number
- Branch/Plant
- Bill Type
- As of Date



3. On Display Comparisons, review the information and click Close.

Processing Options for Bill of Material Comparison (P30204)

Defaults Tab

This processing option controls the default value for the Bill Type fields.

1. Bill of Material Type

Use this processing option to specify the type of bill of material that the system uses as the default value in the Bill Type fields. Bill of material type is a user defined code (40/TB) that designates the type of bill of material. Enter the bill of material type to use or choose it

from the Select User Define Code form. If you leave this processing option blank, the system uses M (manufacturing bill of material).

Display Tab

These processing options control the comparison level and the view mode for the review.

1. Single Level or Multilevel Comparison

Use this processing option to specify whether the system displays the information in a single level or multilevel comparison. The single level comparison shows the item's first-level components; the multilevel comparison shows the subassemblies and components for an item. Valid values are:

- 1 The system displays a single level comparison.
- 2 The system displays a multilevel comparison.

If you leave this processing option blank, the system displays a single level comparison.

2. View Mode

Use this processing option to specify the mode in which the system displays the information. The bill of material mode compares two bills of material, the parts list mode compares two parts lists, and the parts list to bill of material mode compares a parts list to a bill of material. Valid values are:

- 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.
-

If you leave this processing option blank, the system uses the bill of material mode.

Process Tab

These processing options control the information that is included in the comparison.

1. Include Different Records

Use this processing option to specify whether the system displays all components or only those components that are different between the two bills of material or parts lists. Valid values are:

D The system displays the component 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.

If you leave this processing option blank, the system displays the components that are different between the two bills of material or parts lists.

2. Work Center or Item Summary

Use this processing option to specify whether the system sorts the information by work center or by item number. Valid values are:

1 The system sorts the information by work center.

2 The system sorts the information by item number.

If you leave this processing option blank, the system sorts the information by item number.

3. Subassemblies

Use this processing option to specify whether the system displays the subassemblies. A subassembly is an assembly that is used at a higher level to make up another assembly. Valid values are:

Blank The system excludes subassemblies from the inquiry.

1 The system includes subassemblies in the inquiry.

4. Phantom Items

Use this processing option to specify whether the system explodes the phantom to the next level and omits the display of the phantom. A phantom is normally defined for engineering or manufacturing purposes. Phantoms allow common parts, that may or may not be assembled, to be grouped in a bill of material structure. When viewing the bill of material, you may want to display only the subassemblies and raw material. Valid values are:

Blank The system omits the phantom items from the inquiry and displays only the subassemblies and raw material.

1 The system includes phantom items in the inquiry.

Printing Bill of Material Information

You can generate several reports to review bill of material information. These reports retrieve data from the Bill of Material Master File table (F3002). You access these report from the Periodic PDM Discrete menu (G3021). They allow you to display different views of the bill of material. The following reports are available:

Single Level Bill of Material Report (R30460)	Displays an item's first-level components.
Multi Level Bill of Material Report (R30460)	Displays all the levels of an item's components and allows you to view all of the subassemblies.
Where Used Item Report (R30420)	Lists the parent assemblies that contain a specific component and shows all the subassemblies of the components for an item, as well as the indented level of these subassemblies.

You can use processing options to define the scope for each report.

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 sequencing, you might obtain unexpected or inaccurate results.

Processing Options for Bill of Material Print (R30460)

Display Tab

These processing options control the display format, display sequence, and other parameters for the report.

1. Inquiry Mode

Use this processing option to specify whether the system displays the information in single level or multilevel format. The single level format shows the item's first-level components, the multilevel format shows the subassemblies and components for an item, and the multilevel indented format shows the subassemblies indented. Valid values are:

- 1 The system displays the single level format.
- 2 The system displays the multilevel format.
- 3 The system displays the multilevel indented format.

If you leave this processing option blank, the system displays the multilevel indented format.

2. As of Date

Use this processing option to specify the "as of" date that the system uses for the bill of material. The "as of" date is the date that the system uses for effectivity checking. Enter a specific date to display bills of material that are effective on or after that date. You can enter any future or past date as the default value or choose it from the Calendar. If you leave this processing option blank, the system uses the current date.

3. Type Bill of Material

Use this processing option to specify the type of bill of material that the system uses as the default value. Bill of material type is a user defined code (40/TB) that designates the type of bill of material. Enter the bill of material type to use or choose it from the Select User Define Code form. If you leave this processing option blank, the system uses M (manufacturing bill of material).

4. Display Sequence

Use this processing option to specify whether the system sequences the information by component line number or by operation sequence number. The component line number indicates the sequence of components on a bill of material. The operation sequence number indicates the number that designates the routing step in the fabrication or assembly process that requires a specified component part. Valid values are:

- 1 The system sequences by component line number.
- 2 The system sequences by operation sequence number.

If you leave this processing option blank, the system sequences by component line number.

Print Tab

These processing options control the types of information that are included on the report.

1. Detail Line

Use this processing option to specify whether the system prints a second line of detail for each item. This second line of detail includes data such as leadtime level and bill revision level. Valid values are:

Blank The system prints only one line of detail for each item.

- 1 The system prints a second line of detail for each item.
-

2. Component Locators

Use this processing option to specify whether the system prints the component locations. The component location is the specific location of a component in the assembly of an item, for example, the location of a part on a circuit board. Valid values are:

Blank The system does not print component locations.

1 The system prints component locations.

3. Parent Item Detail Line

Use this processing option to specify whether the system prints a line of detail for the parent item. This detail line includes data such as the drawing number. Valid values are:

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 Tab

These processing options control the types of item quantities that are included on the report.

1. Phantom Items

Use this processing option to specify whether the system explodes the phantoms to the next level and omits the display of the phantom. A phantom is normally defined for engineering or manufacturing purposes. Phantoms allow common parts, that may or may not be assembled, to be grouped in a bill of material structure. When viewing the bill of material, you may want to display only the subassemblies and raw material. Valid values are:

Blank The system omits the phantom items from the inquiry and displays only the subassemblies and raw material.

- 1 The system includes phantom items in the inquiry.
-
-

2. Process Items

Use this processing option to specify whether the system displays process items. Process items include the process, co-products, by-products, and ingredients. A discrete bill may contain a component that is produced from a process. You use this processing option when you combine discrete and process manufacturing to display a complete structure of the requirements. Valid values are:

Blank The system excludes process items.

- 1 The system includes process items.
-
-

3. Subassemblies

Use this processing option to specify whether the system displays subassemblies. A subassembly is an assembly that is used at a higher level to make up another assembly. Valid values are:

Blank The system excludes subassemblies.

- 1 The system includes subassemblies.
-

4. Text Lines

Use this processing option to specify whether the system displays text lines.

Valid values are:

Blank The system excludes text lines.

1 The system includes text lines.

5. Consolidate Component Items

Use this processing option to specify whether the system consolidates duplicate components. The same component may be listed in the bill of material several times, either on different subassemblies or on the same subassembly at different operations. When you use this processing option with the Subassemblies processing option, the system consolidates components at the subassembly level or for all levels of the bill of material. When viewing the consolidated components, the quantity required is accumulated for duplicate components. Valid values are:

Blank The system displays individual occurrences of duplicate components.

1 The system consolidates duplicate components.

6. Purchased Item

Use this processing option to specify whether the system explodes to the next level of purchased items in the bill of material report. Valid values are:

Blank The system excludes lower-level purchased items.

1 The system includes lower-level purchased items.

7. Shrinkage

Use this processing option to specify whether the system adjusts the requested quantity for shrinkage. Shrinkage is the planned loss of a parent item caused by factors such as breakage, theft, deterioration, and evaporation. Valid values are:

Blank The system does not adjust the requested quantity for shrinkage.

1 The system adjusts the requested quantity for shrinkage.

8. Scrap

Use this processing option to specify whether the system adjusts the extended quantity for scrap. Scrap is unusable material that results from the production process. It is material outside of specifications and of such characteristics that rework is impractical. Valid values are:

Blank The system does not adjust the extended quantity for scrap.

1 The system adjusts the extended quantity for scrap.

9. Yield

Use this processing option to specify whether the system adjusts the extended quantity for yield. Yield is the ratio of usable output from a process to its input. Valid values are:

Blank The system does not adjust the extended quantity for yield.

1 The system adjusts the extended quantity for yield.

10. Requested Quantity

Use this processing option to specify the required quantity of the parent item in the bill of material inquiry.

11. Unit of Measure as Input

Use this processing option to specify the unit of measure of the parent item in which the requested quantity is entered.

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

To fully cover the information requirements of an enterprise, companies sometimes use products from different software and hardware providers. Interoperability between different products is important to successfully implementing the enterprise solution. Full interoperability between different systems results in a flow of data between the systems that is seamless to the user. The 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 (R47002C). 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

Shop Floor Management provides the following interoperability programs:

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

- Inbound Hours and Quantities Processor (R31122Z1)
- Inbound Inventory Issues Processor (R31113Z1)
- Inbound Completion Processor (R31114Z1)
- Inbound Super Backflush Processor (R31123Z1)

Inbound Inquiry Programs

- Inbound Hours and Quantity Inquiry (P31122Z1)
- Inbound Inventory Issues Inquiry (P3111Z1)
- Inbound Work Order Inquiry (P4801Z1)
- Inbound Super Backflush Inquiry (P3112Z1)

Purge Programs

- Inbound Hours and Quantity Purge (R31122Z1)
- Inbound Inventory Issues Purge (R3111Z1P)
- Inbound Completion Purge (R4801Z1)
- Inbound Super Backflush Purge (R3112Z1P)
- Outbound Work Order Purge (R4801Z1P)

Outbound Extraction Programs

- Outbound Work Order Extraction (R4801Z1X)
- Outbound Operation Status Extraction (R4801Z2X)
- Item Balance Extraction (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 Guide* 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 this system 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 this system. 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 this system cannot write data to the interface tables in the format that is required by the external system. In this case, this system 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 Guide* 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 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. Table F47002 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.

See Also

- *Receiving Transactions from External Systems* in the *Inventory Management Guide* 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 Inbound Hours and Quantities Inquiry program (P31122Z1) to update the Work Order Time Transactions table (F31122).

Note

When you run the Inbound Flat File Conversion program (R47002C) and it completes successfully, the system automatically starts the transaction process, if 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 that are specified for the interface table.

The transaction process performs the following steps:

- Validates the data in the interface table (for example, F31122Z1) to ensure that the data is correct and conforms to the format that is 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 program (P012501)
- Marks in the interface tables those transactions that are successfully updated to the application tables

If the report indicates errors, access the Employee Work Center program from the Workflow Management menu (G02) and review the messages in the message center. 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.

Processing Options for Inbound Completion Processor (R31114Z1I)

Versions

1. Enter the version of Inventory Completions (P31114). If left blank ZJDE0001 will 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.
-

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.

Reviewing and Revising Inbound Transactions

Running one of the transaction processes, such as the Inbound Work Order Inquiry (P4801Z1), 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 program (P012501), which indicates the transaction number for the transaction in error.

Use the inbound inquiry programs to review and revise inbound transactions, as well as 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.

► **To review and revise inbound transactions**

From the Shop Floor Management Interoperability menu (G31311), choose Inbound Hours and Quantity Inquiry.

Note

This task provides an example of typical steps you might perform to review or revise inbound transactions.

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 record you want to review or revise, 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 Inquiry (P4801Z1), run the transaction process again.
5. If the system identifies other errors, repeat steps 1 - 4 until no more transaction errors appear.

See Also

- *EDI Document Inquiry and Revision in the Data Interface for Electronic Data Interchange Guide* for information about reviewing and revising inbound transactions

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. '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, "JDEII" will be used.
Process

1. Name of Inbound Subsystem UBE to call to process Inbound transactions. If left blank, default is 'R31113Z11'.
 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 'R31123Z11'.

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 (P48013)
- Enter/Change Rate Schedule (P3109)
- Order Processing (R31410)
- Inventory Issues (P31113)
- Hours and Quantities Update (R31422)
- Work Order Completions (P31114)

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 the Enter/Change Order program with the interoperability processing option turned on, the system places a copy of updated work order data in the Outbound Work Order Header interface table (F4801Z1). 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 *Setting Up Data Export Controls* in the *Interoperability Guide*.

Lead Times

Determining lead time is an essential part of any manufacturing or scheduling process. For any product that you purchase or manufacture, you encounter a time lag between when you order or start it, and when you receive or finish it. To account for the lag, you must estimate the extra time (lead time) and allow for it in your planning.

Cumulative lead time 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 calculates the appropriate order start date, based on the methods used to define the level lead time or lead time per unit for the product. Many factors can influence your company's lead time policy, including the following:

- Manufacturing environment (assemble-to-order, make-to-order)
- Fixed or variable quantities
- Serial or overlap operations
- Fixed or variable time
- Number of shifts and operators
- Factoring by efficiency
- Protection

Whether your company uses fixed or variable lead time depends on whether you have consistent work order quantities for a manufactured item. If your work order quantities vary significantly, you use variable lead time. A significant variation is any amount that requires more or less lead time. Items with short lead times can have larger fluctuations than items with long lead times. You specify fixed or variable lead time on the Additional System Information forms in the Item Master program (P4101) and the Item Branch/Plant program (P41026). The system calculates lead times for parent and component items based on this information combined with the work center information and routing instructions that are set up in the Product Data Management system. At any point in your planning and scheduling process, you can change lead time values manually.

The system subtracts fixed lead times directly from the requested date on the work request to calculate the start date of production. Fixed lead time remains the same, regardless of the quantity produced. However, variable lead time adjusts according to the quantity produced.

For any manufactured product, the system calculates the following four types of lead time:

Level lead time	The number of workdays required to complete the product after all items are available.
Manufacturing lead time	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.
Cumulative lead time	The number of workdays required to acquire items and complete a product, from its lowest-level components to the final item. Cumulative lead time is the level lead time for a product plus the longest cumulative lead time of any of its components.

Per unit lead time

The sum of the run times, as defined by the prime load codes for the work centers, factored by the routing time basis and converted to the lead time per unit. You use this lead time calculation when the Fixed/Variable option in the Item Master and the Item Branch/Plant programs is set to variable lead time.

The Shop Floor Management system uses the following information to calculate lead times:

- Serial or overlap operations
- Fixed or variable lead time indicator
- Routing labor, setup, queue, move, and machine run hours
- Work center prime load code
- Number of employees or machines per work center
- Hours per work day

Lead Time Concepts

The following table explains important lead time terms and concepts that you need to understand:

Machine hours	The number of machine hours that is required to produce the amount from the time basis code.
Labor hours	The number of labor hours that is required to produce the amount from the time basis code.
Setup hours	The number of hours that is 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.
Queue hours	The number of hours that a job waits at a work center before setup or work is performed on it.
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 to be used for machine or labor hours entered for every step in the routing instructions, such as 25 hours per 1000 pieces.
Resource units	The available amount of capacity in a work center for the months in the calendar. As the system calculates the operation start and due dates, it uses the available hours to calculate the operation start dates. You maintain the resource units in the Enter/Change Resource Units program (P3007).

Prime load code

A code that indicates whether a work center is labor-intensive or machine-intensive. The prime load code also indicates whether the system uses the number of employees or the number of machines to determine the daily resource units in the Work Center Resource Units table (F3007). You maintain the prime load codes in the Enter/Change Work Centers program (P3006). For calculating lead times, the following prime load code values are valid:

- L = run labor hours
- M = machine labor hours
- B = run and setup hours
- C = machine and setup hours
- O = Other

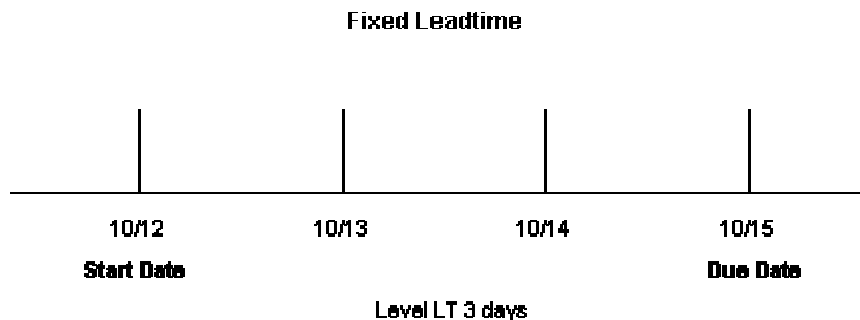
Purchased parts

A part bought from a supplier. For any purchased part, you specify the level lead time, which is equal to the cumulative lead time. By default, the manufacturing lead time, lead time per unit, total queue and move hours, and setup times for purchased parts are zero.

Work Order Start Dates

When an item has a fixed lead time, the system uses the item's level lead time value to backschedule the work order start date. For back scheduling, the start of a work order is based on the due date of the order.

For example, suppose that the system generates a planned order with a requested due date of 10/15. The level lead time is three days for this product, so the system calculates the start date by counting back three 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.



When an item has a variable lead time, the system uses the following calculation to determine the lead time days:

$$\text{Variable lead time} = (\text{Lead time per unit} \times \text{order quantity} / \text{TIMB}^*) + \text{setup} + \text{total queue/move} =$$

The system reads the time basis code (TIMB) from the Item Branch File table (F4102).

The calculation uses the following values:

Due date 10/15
Lead time per unit 32 hours
Order quantity 1000
Setup 1 hour
Total queue/move 9 hours
Work hours per day 8 hours

$$((32 \times 1000 / 10,000) + 1 + 9) / 8 = 2 \text{ days}$$

To determine the start date, the system counts back the lead time days from the due date of planned orders. The system backschedules the due date, 10/15, two days to determine the start date of 10/13.

Note

Lead time per unit does not use crew size to calculate lead time for an item with a labor-based work center. However, lead time per unit does use the number of employees in the work center to calculate lead time.

Operation Start Dates

The system calculates the operation start dates with the average number of hours per operation.

For a fixed lead time, the system calculates the operation hours using the following information:

- Level lead time
- 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 lead time to ensure that the start date of the first operation is the same as the start date of the work order. When the job moves to a different work center in the same day, the system decreases the resource units available by the percentage of the work day remaining. The system 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 last operation due date on the day before the work order due date.

The system uses the following formula to calculate average time per operation:

$$\frac{\text{Level lead days} \times \text{work hours per day} \times \text{employees or machine}}{\text{number of operation sequences (blank operation sequence codes only)}} = \text{Average time per operation}$$

The work hours per day are retrieved from the Job Shop Manufacturing Constants table (F3009)

The following table shows the values used in this calculation.

Work order due date	05/01/05		
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		

To determine variable lead times, the system schedules the actual hours from the work order routing instructions according to the same resource unit rules used for fixed lead time.

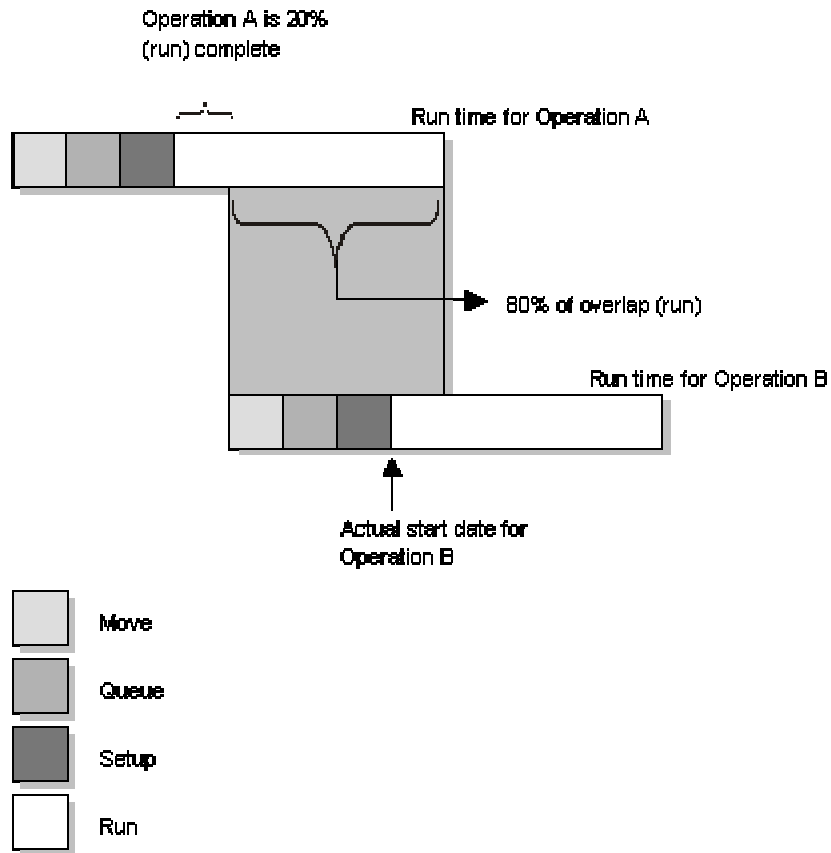
The system uses the prime load code to determine the hours to use. The hours are then applied to the Work Center Resource Units table, similar to fixed lead time. The system applies the queue time from the work order routing instructions at the beginning of an operation and the move time at the end of an operation.

Overlapping Operations

To compress lead times, operations can be scheduled to overlap. Overlapping operations occur when two or more operations in a routing instruction run at the same time. The percentage of overlap is the amount of time that these operations can run concurrently. You can define the point at which 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 defined.

In the following example, Operation B has an 80 percent overlap, so Operation B can begin when 80 percent of Operation A remains to be finished, or when Operation A is 20 percent complete. Operations A and B are both active as they overlap.

Overlapping Operations



When 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 percent of overlap is specified in the routing instructions, the work order routing instruction includes specified operations that overlap. For example, an overlap percentage of 80 percent for an operation means that the next operation can start when 20 percent of the previous operation is complete.

Work order complete date	05/01
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	04/27
complete	04/29	04/29
Operation 20		
start	04/30	04/27
complete	05/02	04/30

Using data from the previous tables, the system advances the complete date of the previous operation by 75 percent of 24 hours, or 18 hours. The system then recalculates the start date using 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) (w/o overlap)	<----->					
OP 20 (24 hrs) (w/o overlap)				<----->		
OP 10 (w/ overlap)	<----->					
OP 20 (w/ overlap)	<-			-->		

Calculating Lead Times

From the Advanced Product Data Management menu (G3031), choose Leadtime Rollup.

When you run the Leadtime Rollup program (R30822A), the system updates the following values in the Item Branch File table (F4102):

- Level lead time (if using manufacturing lead time quantity)
- Manufacturing lead time
- Cumulative lead time

- Lead time per unit
- Total queue and move hours
- Setup hours

Level Lead Time

For a manufactured product, level lead time is the number of workdays that is required to complete the product after all of the items are available. Level lead time 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 example shows you where the level lead times occur for a manufactured item and a purchased item:

The system uses the following formula to calculate level lead time.

$$\frac{\sum \{ [\{ (M \text{ or } L) / (E \text{ or } M) \} / \{ (EF \text{ or } UT) * (CUM \text{ Yield}) \}] * MLQ \} / TIMB \} + \text{Setup} + \text{Total Queue \& Move}}{\text{Work Hours per Day}}$$

The work hours per day are retrieved from Job Shop Manufacturing Constants table (F3009). The system reads the time basis code from the Routing Master File table (F3003).

The following table defines the values used in the formula.

M or L	Machine or labor hours based on the prime load code
SUM	Sum of all operations
TIMB	Time basis code
MLQ	Manufacturing lead time quantity
E or M	Number of employees or machines in the work center
Setup	Information from the routing
Queue	Queue plus move time from the routing or work center
EF or UT	Efficiency or utilization from the work center
CUM Yield %	Yield from the routing

Manufacturing Lead time

Manufacturing lead time 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. Manufacturing lead time includes the following:

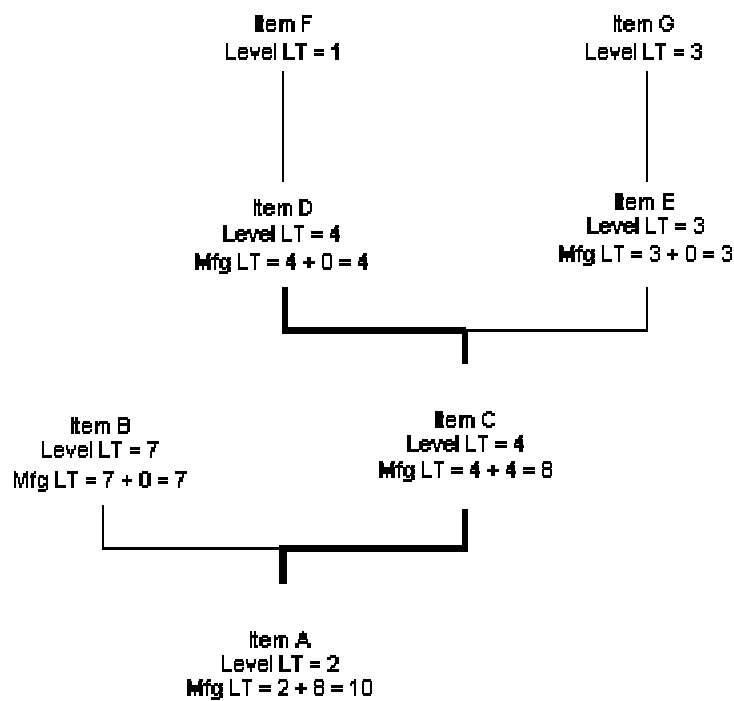
- Order preparation time
- Queue time
- Setup time

- Run time
- Move time
- Inspection time
- Putaway time

Manufacturing lead time is the total of the level lead time for an item plus the longest manufacturing lead time for any of its components. Lead time for purchased items is not included in manufacturing lead time calculations.

The following example, which depicts the calculation for manufacturing lead time, shows you where the manufacturing lead time occurs in the process for a manufactured item:

Manufacturing Leadtime Calculation



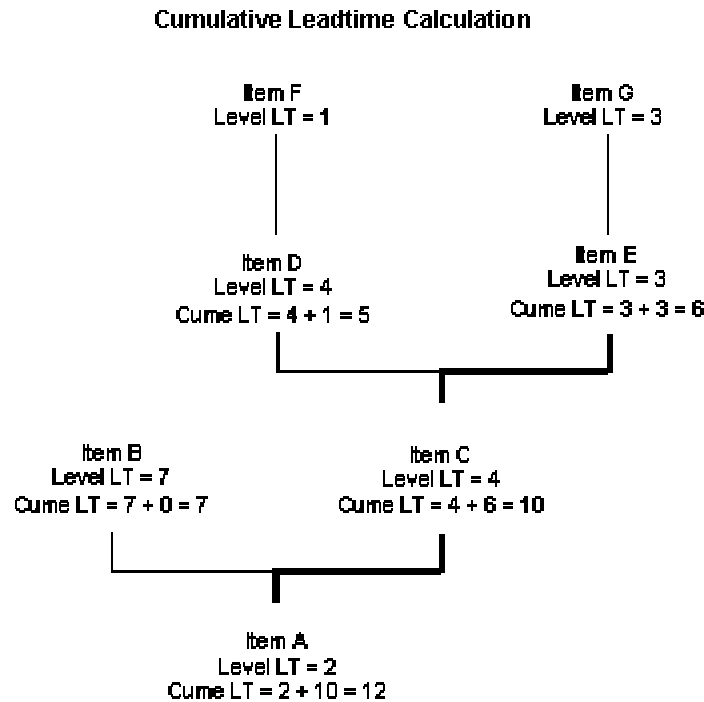
Bold line = Longest manufacturing leadtime for any of the product's items
Items A, B, C, D, and E are manufactured items
Items F and G are purchased items

Cumulative Lead time

Unlike manufacturing lead time, cumulative lead time includes the lead times for purchased items. It includes both the time to acquire purchased items and the time to complete the product.

Cumulative lead time is the number of workdays that are required to acquire items and complete a product, from its lowest-level components to the final item. Cumulative lead time is the level lead time for a product plus the longest cumulative lead time of any of its components. The cumulative lead time for a purchased item is its level lead time.

The following flow chart depicts the calculation for cumulative lead time.



Bold line = Longest manufacturing leadtime for any of the product's items
Items A, B, C, D, and E are manufactured items
Items F and G are purchased items

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 together the move hours per routing and the queue hours per routing.

In the following example, the total queue and move hours are nine hours.

OP 30 OP 60 OP 80
 (1+2) (2+4) (0+0) = 9

Lead Time Per Unit

The lead time per unit is the sum of the run times, as defined by the prime load codes for the work centers, factored by the routing time basis and converted to the lead time per unit. The lead time per unit sets valid start dates for orders planned in other-than-normal planned order quantity. When you run the lead time rollup program, the system measures the lead time per unit in hours.

The system uses the following formula to calculate the lead time per unit:

$$\sum \frac{\{((M \text{ or } L)/(E \text{ or } M)) / ((EF \text{ or } UT) * (CUM \text{ Yield}))\}}{TIMB1} / TIMB2$$

The system reads the time basis code 1 (TIMB1) from the Item Branch File table (F4102) and the time basis code 2 (TIMB2) from the Routing Master File table (F3003).

If the processing option to override the number of employees or machines in the work center is set to one, the system uses the following formula:

$$\sum \frac{\{((M \text{ or } L)/(1)) / ((EF \text{ or } UT) * (CUM \text{ Yield}))\}}{TIMB1} / TIMB2$$

The following table defines the values used in the formula.

M or L	Machine or labor hours based on the prime load code
SUM	Sum of all operations
TIMB1	Time basis code from the Item Branch File table
TIMB2	Time basis code from the routing
E or M	Number of employees or machines in the work center
EF or UT	Efficiency or utilization from the work center
CUM Yield %	Yield from the routing

Setup Hours

Setup hours indicate the time that is required to prepare the machinery to run a specific item. To calculate setup hours, divide the setup by the number of employees or machines for each routing, and then add the values together. This formula 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 hours:

Setup Hours

$$\frac{\text{Setup}}{\text{Employees or machines}} = \frac{1}{1} + \frac{2}{1} + \frac{6}{2} = 6 \text{ setup hours}$$

OP 30 OP 60 OP 80

