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J D E D W A R D S

Equipment-Plant Maintenance

Release
OneWorld® Xe



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Overviews

The Equipment/Plant Management system allows you to integrate all aspects of equipment and machinery maintenance with the rest of your business operations.

This section provides overview information about the equipment maintenance industry, as well as information about how the Equipment/Plant Management system operates.

Overviews consists of the following:

- Industry Overview
- Equipment/Plant Management Overview

Industry Overview

To understand the critical role that Equipment/Plant Management plays in your business, you should understand the ways in which maintenance affects businesses, and how businesses can more efficiently track, manage, and maintain their equipment assets.

This chapter introduces you to industry concepts related to Equipment/Plant Management. In addition, this chapter outlines several problems inherent in a maintenance environment, as well as J.D. Edwards solutions through Idea to Action.

The industry overview consists of:

- Industry Environment and Concepts for Equipment/Plant Management
- Idea to Action: The Competitive Advantage

Industry Concepts for Equipment/Plant Management

A Need for Managing Maintenance

The following scenarios illustrate typical occurrences in the Equipment Management industry and the need for managing maintenance.

Scenario A

As the production manager of a profitable automotive parts manufacturing line in a very competitive market, you try to meet your customer's requirements in a just-in-time (JIT) environment. Deadlines are tight and you've just received another large contract. The maintenance manager has insisted that scheduled repairs be performed on the primary production line. The maintenance is past due, but you cannot afford to take the line down at this time. You have production deadlines to meet, and the line seems to be running just fine.

As you prepare to go home for the evening, your production supervisor rushes into your office wearing a look of panic on his face. The line is down. A critical part has failed; it is not stocked, and it will take three days to arrive. Another full day is required to install the part and recalibrate the line. The cost of the repair is

not large -- eight hours of maintenance labor, plus the cost of the part. However, other costs are significant: lost production time, idle workers, decreased customer satisfaction, and the potential of losing that new contract. To make matters worse, the maintenance manager informs you that the part that failed had been due for maintenance. Had it been maintained properly, it would not have failed. The total downtime for the planned maintenance would have been two hours.

Scenario B

You manage a large fleet of service vehicles that are used to maintain and install gas and electric utilities. As a contractor to the largest public utility in the area, you must keep your costs down and respond to project needs efficiently and effectively. To keep your fleet in top condition, you have installed a system that helps you manage the maintenance of all equipment. The system schedules critical preventive maintenance activities, collects vital information that allows you to predict problems, helps you deal more efficiently with unscheduled problems, and captures parts and labor costs. As a result, you have been able to reduce equipment downtime. When contract volume of your firm grew by 157 percent, you were able to support it without adding any new equipment. In addition, your repair costs dropped by 50 percent.

The scenarios above lead to an obvious conclusion. You can spend a small amount of time and money to prevent problems, or you can spend a large amount of time and money when problems occur. From an equipment/plant maintenance perspective, performing preventative maintenance almost always beats the cost of downtime.

Industry Problems

Most industries have equipment and facilities (buildings) that require some type of maintenance. Healthcare facilities have medical equipment, backup electricity generators, and other critical machines. Manufacturing plants have equipment and facilities that must be operational, often around the clock. Distribution centers have material-handling equipment, refrigeration systems, and vehicles ranging from forklifts to trucks and trailers. Construction companies have vehicles, heavy equipment, and tools that must be maintained and possibly relocated to various project sites. Even a standard office has copiers, fax machines, and computers that need regular maintenance to ensure ongoing productivity.

These types of industries have made substantial investments in the equipment and facilities that are vital for running their businesses. With that in mind, two of the most important objectives for a company are to:

- Minimize repair costs. Equipment breakdowns and facility shutdowns can cost millions of dollars in costs related to repairs, poor quality, and lost production.
- Maximize equipment availability. Reliable equipment ensures maximum production, on-time delivery, and good customer service.

To meet these objectives, a company's management and maintenance departments must work towards developing and supporting preventive maintenance programs.

Preventive, Predictive, and Corrective Maintenance

Preventive maintenance ensures that equipment is working properly and that the maintenance performed minimizes downtime and reduces expensive breakdowns. Preventive maintenance can be based on a variety of parameters such as a specific date, period of time (for example, every 30 days), distance driven, hours operated, or volume processed. Initial schedules should be based on manufacturer recommendations or previous experience with the specific type of equipment. The intent is to perform maintenance before the equipment breaks down. A “run until it breaks” attitude is costly. A breakdown can result in associated parts being ruined and additional repair costs. Unscheduled downtime leaves workers standing idle and delays production schedules.

Lack of preventive maintenance also affects quality. When a machine is running, its alignment, degree of precision, or efficiency may be drifting. This results in sub-standard product or excessive waste. For example, in aggregate production (sand, gravel, and crushed stone), an out-of-alignment loading device can result in lost product due to spillage. Poor maintenance can also affect safety. This same spillage can lead to excessive sand blowing, resulting in potential inhalation health hazards, damaged equipment, and buried electrical cables. Most companies include safety as one of their top priorities. Well-maintained equipment means a safer work environment.

Predictive maintenance is based on key operating parameters. The operating parameters are determined based on the equipment's optimal state of operation. Current readings are compared to initial or baseline readings to determine the amount of deviation. Using this data, you can make informed decisions about how much maintenance is required and when maintenance should be performed. For example, various techniques can be used to predict mean time between failures on bearings, shafts, and other parts subject to heavy wear. Six major diagnostic tools used for predictive maintenance programs, typically performed on a regular schedule, are:

- Vibration analysis
- Thermography - checks heat-generating points to detect thermal anomalies

- Fluid analysis - analyzes fluids from gearboxes, transformers, or other equipment and components to determine wear or material degradation
- Visual and auditory inspections
- Operational dynamics analysis - checks equipment to ensure that it meets design specifications - for example, ensuring that a damper is receiving its designed 50 percent airflow
- Electrical monitoring

Corrective maintenance includes any task that is:

- **Unscheduled.** A task that is performed only when needed. For example, equipment needs to be washed only when it is dirty enough to affect its operability.
- **Unplanned.** A machine breaks or no longer functions properly, due to unforeseen causes.

The goal of preventive and predictive maintenance is to minimize corrective maintenance. Unplanned events are the most costly because they might occur when they have the most impact on production and labor needs.

Regardless of the maintenance type being performed, the tracking, scheduling, and management of equipment and facility maintenance can be a daunting task if you use only a paper system. The main purpose of maintenance management is to automatically alert you when a maintenance operation must occur, based on a variety of criteria. A computerized system is key to meet this need. An unscheduled event or a corrective maintenance action must be tracked. Recurring problems can help you to identify opportunities to schedule preventive or predictive maintenance activities. In turn, this allows you to reduce unplanned downtime and provide the means to plan and perform the right maintenance at the right time.

Cost Management

Consider the following statistics from a report in a leading manufacturing periodical: “Maintenance costs account for an average of 8% of a company’s revenues. The average manufacturing cost of goods sold is 28% direct maintenance cost. Downtime costs are typically four to five times greater than maintenance costs. Thus, on average, a 10% improvement in maintenance costs results in 36% increase in profitability. For the U.S., between \$300 billion and \$500 billion per year is spent in manufacturing on maintenance.”

(Keeping Up, Running & Profitable with CMMSs (Computerized Maintenance Management Systems), Automotive Manufacturing & Production, 110:8 (August 1998): 68).

To minimize costs, companies concentrate on several key areas, all of which are supported by an integrated maintenance system:

- A minimum of unscheduled downtime. Downtime results in lost productivity. Goods are not produced or shipped, workers stand idle waiting for equipment to become available again, and customer satisfaction is affected when delivery schedules are not met.
- An emphasis on maintaining quality. Poorly performing equipment leads to waste, damaged goods, product not meeting quality standards, increased customer returns, and decreased customer satisfaction.
- Better material and capacity planning. A maintenance schedule can include information on parts to be used, labor to be consumed, amount of downtime to be incurred, and when the maintenance will occur. Even work orders for unscheduled maintenance can be considered in planning. By including this information, you ensure that production planning is more accurate and that parts are ordered and available when needed.
- Ability to track parts and labor costs. To troubleshoot problems such as inefficiencies in personnel or vendor parts not working as expected, the integrated Procurement and Payroll systems manage costs of parts and labor, the hours needed to do repairs, and parts usage. Information from these systems allow you to improve work load levels and training, and to find alternate parts that work better and longer, and for less cost.

Idea to Action: The Competitive Advantage

The following are examples of typical problems with equipment maintenance, the business activator that resolves each problem, and the return on investment.

How can I integrate the financial management of my assets with the costs that are associated with equipment maintenance?

OneWorld is a single integrated system. Asset master information can be shared by all functional areas of maintenance, production, and financial management. For example, initial purchase price, depreciation, and maintenance costs are available by asset.

Additional benefits of integration include the reduction of setup time across multiple disciplines, and labor saved for data entry duplication. Access to shared information results in better planning and management. For example, informed decisions are more likely to occur with respect to equipment replacement. When information shows that quarterly maintenance for a motor exceeds the cost of the motor, you might consider replacing the motor rather than repairing it.

How do I track the location of my mobile equipment?

Location tracking includes current, planned, and historical location information, dates and times, and equipment status. In addition, you can track multiple items within an asset at different locations.

Visibility of historical, current, and planned locations reduces the time required to physically track equipment. This information helps you to reduce customer problems by knowing where equipment is at all times, and improves planning management by documenting future locations.

Equipment location and tracking is especially useful in the construction industry or with project-intensive services where work is done at multiple offsite locations.

How do I record and track static information about my equipment?

You can store static information from manufacturing specifications or other specific information in user-defined formats. In addition, you can store permit and licensing information by using pre-existing table formats.

You can maintain key information online for easy accessibility for both inquiries and custom reports. Online access eliminates labor wasted in searches for key information.

License and permit information is important to companies that manage fleets of vehicles or construction companies with mobile equipment.

How do I record and track supplemental data about my equipment?

You can set up supplemental data in a variety of user-defined formats. You can define and collect supplemental data for individual pieces of equipment or for work orders. You can verify data against user-defined information. You can extract this information for analysis to help improve the management of equipment and preventive maintenance (PM) schedules.

Critical data includes date and time stamps and comments. You can use this information to identify problems in advance, which results in timely repairs, reduced labor requirements, and reduced downtime.

This operation is useful in industries that use predictive maintenance programs, or where critical preventive maintenance tasks are used to collect information to ensure proper equipment function.

How can I maximize the efficiency of my maintenance personnel to accommodate repetitive maintenance tasks?

You can set up user defined codes for service types (maintenance tasks). Service types can be associated with one or many assets. The schedules are determined for the asset and service type. Use service types to reduce setup time and labor and to provide consistency across tasks.

I have many pieces of equipment that require the same types of maintenance. How can I reduce the duplication of similar maintenance tasks?

Use model preventive maintenance schedules to include the scheduling and work order information needed for a particular service type and a type of equipment, based on category codes. You can copy the model PM schedule to other equipment or assets that have the same or similar category codes.

Model PMs help reduce data entry, information maintenance, and labor that is associated with data input. Model preventive maintenance schedules also provide consistency across maintenance tasks, which is useful in industries with vehicle fleets or large numbers of similar pieces of equipment.

My equipment often has multiple maintenance tasks with due dates that overlap or that are close together. How can I maximize the downtime that is associated with these tasks?

Associated service types allow you to link service types based on how close to one another they are scheduled to occur. This scheduling reduces equipment downtime by grouping tasks and optimizing labor time. The system identifies opportunities for grouping different maintenance tasks with the intent of minimizing downtime and reducing the possibility of skipping important tasks.

How do I track the costs that are associated with unscheduled maintenance tasks?

Unscheduled service tasks have the same system features available as scheduled service tasks. You can create service types, attach them to an asset, and issue a corrective work order for tracking costs. This ensures traceability and enables troubleshooting by tracking equipment problems and capturing nonscheduled maintenance costs for cost analysis.

How do I ensure that I do not incur costs that are associated with warranty repairs?

You can identify warranty service types by asset. Warranty service can be scheduled or available as an unscheduled task. When a work order is created, a warning message indicates a possible warranty conflict.

Warranty service types minimize in-house expenses by having work performed by the supplier or manufacturer as part of the original contract for the purchased equipment.

I have many pieces of identical equipment that all require the same maintenance tasks at the same time. How can I reduce the time and paperwork that is associated with these tasks and track my costs at a higher level?

Maintenance loops use a primary asset, such as a production line, to schedule a particular type of preventive maintenance. All equipment associated with the production line can be associated with that preventive maintenance. When the preventive maintenance is due, only one work order is generated, but all equipment is included and the preventive maintenance becomes part of the individual asset's history. All costs are tracked to the primary asset with the originally scheduled task, such as the production line.

Maintenance loops minimize setup costs and paperwork by generating only one work order and scheduling only one asset. Maintenance loops allow you to trace information by recording the preventive maintenance performed against all associated items.

How can I integrate the management of my MRO (Maintenance Repair Operations) and OEM (Original Equipment Manufacturer) parts inventory with the rest of my maintenance management program?

OneWorld is a single, integrated system. You can manage parts and part lists with the Inventory Management and Product Data Management systems. Parts information can be associated with both corrective and preventive maintenance work orders.

Integration minimizes the costs incurred by maintaining duplicate systems. It also eliminates errors by providing current and accurate parts information to the user.

How can I ensure that the parts and labor costs that are associated with a piece of equipment are reflected in the equipment's balance sheet as well as the individual work orders?

Work orders are generally associated with a particular asset or piece of equipment. You can issue parts against the work order. Through time entry, you can indicate what labor was performed on the work order. The costs are then reflected against both the work order and the equipment, which provides you with accurate information on the cost of a piece of equipment over its lifetime. This information helps you to plan and manage preventive maintenance scheduling and asset replacement.

Equipment/Plant Management Overview

You can use the maintenance features of the Equipment/Plant Management system to manage all aspects of equipment and machinery maintenance in your organization, such as:

- Planning
- Scheduling resources
- Purchasing parts and materials
- Tracking the status of preventive and corrective tasks

System Integration

From Equipment/Plant Management, you can link to the other J.D. Edwards systems that your organization uses. For example, use the General Accounting system to record maintenance charges against work orders. Use the Work Order Processing system to track and monitor schedules by work order. Other systems that you can link to include the following:

- Fixed Assets
- Inventory Management
- Procurement
- Shop Floor Management
- Accounts Payable

Because J.D. Edwards systems are integrated, you need to enter the vital information about a piece of equipment only one time. When you create equipment masters and supplemental information for a piece of equipment, the system stores the information in the Asset Master table (F1201). Many J.D. Edwards system that you use can then access the information.

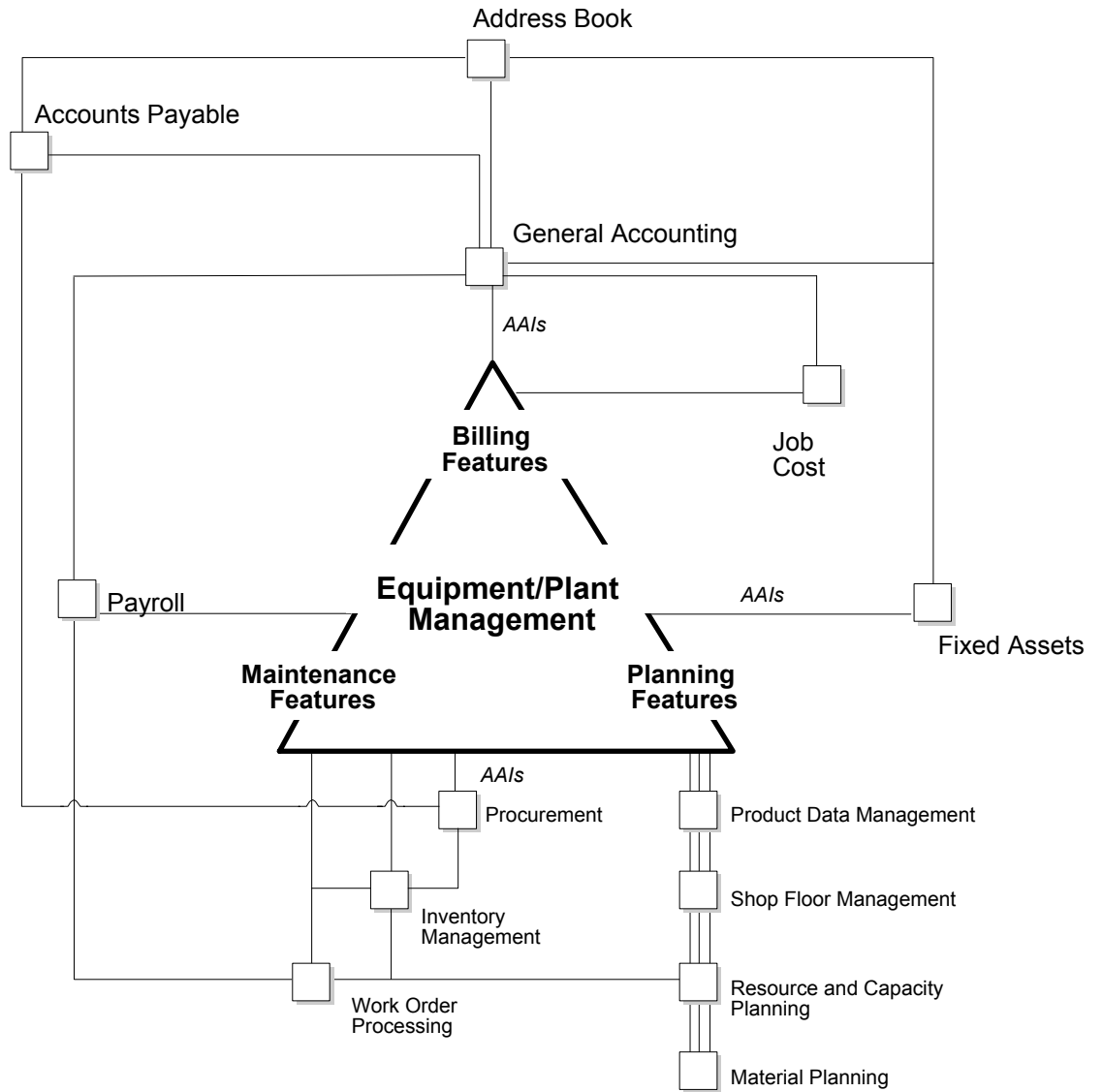
System integration also helps ensure that equipment information is consistent throughout your organization. This saves considerable time and money, especially when you need to update or revise equipment information.

Note: This guide describes features and functions that depend on the installation of the complete Equipment/Plant Management system, which includes the following systems:

- 05 - Time Accounting
- 07 - Payroll
- 30 - Product Data Management
- 31 - Shop Floor Management
- 33 - Resource and Capacity Planning
- 34 - Material Planning
- 40 - Inventory Base and Order Processing
- 41 - Inventory Management
- 43 - Procurement

Your company might not have purchased all of these systems. Check with your system administrator to verify which systems have been purchased and installed.

The following graphic illustrates the system integration between the Equipment/Plant Management system and other J.D. Edwards systems. The accompanying table briefly describes how many of the systems are used within the context of Equipment/Plant Management.



Address Book

Every J.D. Edwards system works with the Address Book system to retrieve up-to-date employee, supplier, and other applicable name and address information.

General Accounting When you enter equipment transactions (including billing transactions), you must process them through the general ledger.

You enter all statistical values, such as miles, gallons, and hours into the general ledger.

When you charge a job for equipment use, the system searches the Account Master for the appropriate rate and account to bill.

Job Cost You can use job cost to assist you in managing your projects and jobs, and to monitor the costs and revenues associated with them.

Accounts Payable You can enter equipment charges through the Accounts Payable system.

When you process equipment parts orders through the Procurement system, the system automatically enters the equipment number from the purchase order to the accounts payable voucher.

Payroll You can use Payroll to do the following:

- Enter equipment time for billing purposes
- Charge for labor associated with operating or repairing equipment
- Charge labor to a work order using a specific labor routing step

Fixed Assets The Fixed Assets system shares many tables with Equipment/Plant Management, such as the following:

- Asset Master table (F1201) - Stores equipment master information
- Asset Account Balances table (F1202) - Stores equipment account balance information

Equipment/Plant Management also uses automatic accounting instructions from the Fixed Assets system.

Work Orders

You can use the Work Orders system to track, schedule, and report on preventive and corrective equipment maintenance activities.

You can attach parts lists and detailed instructions (routings) to the work order to assist in planning labor and parts requirements.

Inventory Management

You can use the Inventory Management system to do the following:

- Track and take inventory of repair parts
- Attach parts lists to work orders

Procurement

You can create purchase orders directly from the work order parts list and from other maintenance planning functions within Equipment/Plant Management.

A purchase order includes the equipment number, which the system automatically enters in related forms and tables, such as the following:

- Accounts payable entry
- General ledger
- Equipment ledger

Equipment/Plant Management Features

The maintenance features of the Equipment/Plant Management system are designed to meet equipment maintenance needs in a variety of ways. For example, you can use the system to do the following:

- Enter and search for equipment information
- Track equipment movement and status, and assign equipment to multiple locations
- Track the maintenance history of each piece of equipment and target potential problem machines to minimize equipment downtime
- Coordinate maintenance activities based on preventive and corrective maintenance schedules
- Coordinate maintenance activities with materials and labor resources

- Maintain detailed cost accounting records for equipment
- Produce reports on a wide range of equipment-related topics

Equipment Information and Search

The following table describes several of the types of information that you can use in Equipment/Plant Management to locate, organize, and track the availability and repair status of equipment.

Parent and component relationships	<p>A parent piece of equipment consists of other parts or components. It can also be a component of another piece of equipment.</p> <p>A parent can also be a virtual or logical piece of equipment with component relationships to other logical equipment. For example, a manufacturing line could be a parent and the associated manufacturing machinery would be components of the manufacturing line.</p> <p>Use parent and component relationships to group components in the system. You can track the history of a piece of equipment's immediate parent or any of its components. The system accommodates up to 25 levels of components. This is useful if you use complex or interchangeable equipment assemblies.</p>
Equipment numbers	<p>You can identify equipment by any or all of the following:</p> <ul style="list-style-type: none">• Equipment number• Unit number• Serial number
Location	<p>You can search for and track equipment based on its historical, current, or planned location. This is helpful if you need to review equipment that is used at a particular job site or reroute equipment between job sites.</p>
Category codes	<p>You can define up to 23 category codes to classify equipment for reporting and data selection purposes. For example, you can perform online searches for equipment based on category codes that represent major accounting class, major equipment class, manufacturer, model year, and so on.</p>

Other user defined codes You can assign three additional user defined codes, as follows:

- Finance methods
- Equipment status codes
- Equipment message types

For example, you can set up equipment status codes to apply to each piece of equipment, such as the following:

- Down
- Standby
- Working
- Available

Licenses and certifications

You can record and track license and permit information for each piece of equipment. This is helpful if you dispatch equipment to job sites that are located in different licensing authorities.

Online message logs

You can use online message logs to enter messages about a piece of equipment. Standard message types include the following:

- Planned maintenance
- Actual maintenance
- Problem reports

You can also enter additional remarks about any piece of equipment.

Equipment Location Tracking

You can locate and report on the availability and working status of equipment. You can also do the following:

- Revise location tracking information
- Transfer one or more pieces of equipment
- Consolidate equipment from multiple locations

Detailed Equipment Cost Accounting

You define the chart of accounts for your equipment cost and revenue to meet your unique needs, such as matching a parent company's accounting structure. You can view these accounts at a summarized or detailed level at any time.

Reporting

Equipment/Plant Management provides you with a wide variety of reports that offer you a comprehensive view of your equipment needs and processes. You can customize any report to fit your company's reporting needs and simplify the fulfillment of various governmental reporting requirements. The following examples are a partial listing of the predefined reports available:

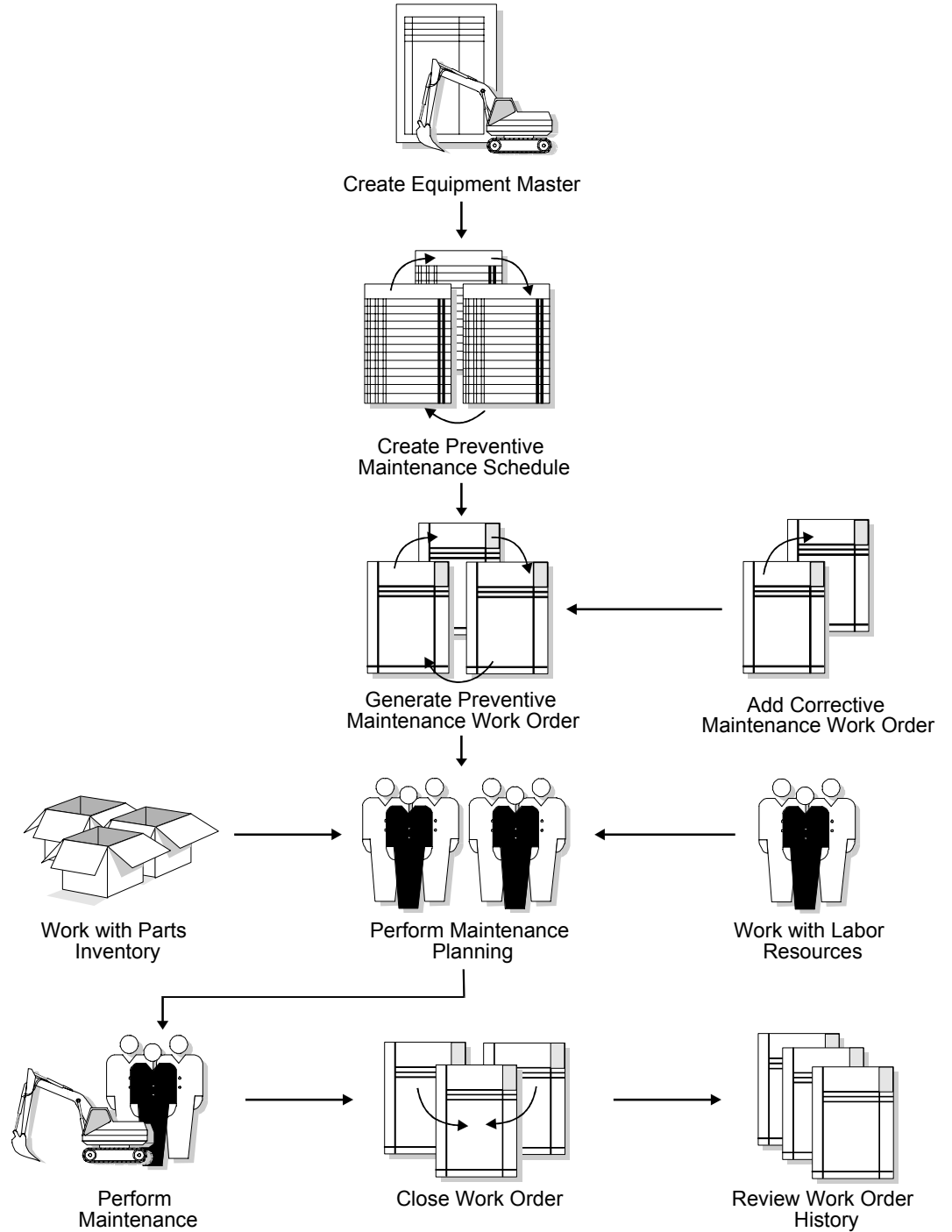
- Work Order Cost Summary
- Work Order Cost Detail
- Maintenance Schedule
- Equipment Parts List
- Specification Data
- Location Tracking
- Equipment Variance

In addition to standard reports, you can create custom reports, using virtually any data within the system.

Equipment/Plant Management Process Flow

The following graphic illustrates the flow of the primary events and processes within Equipment/Plant Management:

Equipment/Plant Management Overview



Equipment/Plant Management Tables

Primary Tables and Descriptions

Asset Master (F1201)	Stores basic information about each piece of equipment, such as the following: <ul style="list-style-type: none">• Equipment number• Description• Account coding• Category codes
Asset Account Balances (F1202)	Stores the account balance amount or unit for each equipment account.
Location Tracking (F1204)	Stores location information for a piece of equipment, including the following: <ul style="list-style-type: none">• Equipment number• Location• Start effective date• Ending date• Equipment status• Transfer number• Location code, which indicates the type of location, such as planned, current, or history
Maintenance Schedule (F1207)	Stores information about each occurrence for a type of service, such as the following: <ul style="list-style-type: none">• When the service is to be performed• When the service was last completed• Current status• References to any associated work order

Work Order Master (F4801)	Stores static information about each work order, such as the following: <ul style="list-style-type: none">• Description of work• Budgeted amount and hours• Equipment worked on• Charging information
Account Ledger (F0911)	Stores general ledger journal entries and provides an audit trail for both the Asset Account Balances table (F1202) and the Account Balances table (F0902).

Secondary Tables and Descriptions

Supplemental Database Setup (F00090)	Stores supplemental database information. Equipment/Plant Management uses the following supplemental databases: <ul style="list-style-type: none">• AM - Asset Management• WO - Work Orders
Supplemental Database Data Types (F00091)	Stores data types for supplemental databases.
Supplemental Data (F00092)	Stores supplemental data in either columnar or narrative format about equipment or work order.
Specification Data Table (F1216)	Stores static equipment information, such as power requirements, size, capacity, and other nameplate information.
Specification Cross Reference Table (F1215)	Stores, by equipment class, the valid values of each field in the Specification Data Table (F1216).
Equipment Messages Table (F1205)	Stores user-generated messages regarding equipment maintenance.
Equipment License Master (F1206)	Stores license and permit information for equipment.
Equipment Model PM Schedule (F12071)	Stores model maintenance schedules.

Location History Text (F1210)	Contains text for location history records.
Parent History (F1212)	Contains the history of parents for a component.
Meter Reading Estimates (F1306)	Maintains the estimated meter readings that the system uses to schedule maintenance activities.
Status History (F1307)	Maintains a history of status changes to equipment and work orders.
Equipment Routes (F1308)	Stores equipment maintenance loop information by associated equipment and service type.
Equipment Category Code Mapping (F1391)	Maintains the rules by which the system automatically assigns equipment and business unit category codes when you create master records for new equipment or create work orders for equipment.
Maintenance Rules (F1393)	Defines when preventive maintenance will be scheduled and provides default values to work orders.
PM Projections (F13411)	Maintains information about projected PMs by service type for each piece of equipment.
Work Order Record Types (F48002)	Stores types of text associated with work orders.
Work Order Parts List (F3111)	Maintains information about parts related to specific work orders.
Work Order Routing Instructions (F3112)	Maintains information about the labor steps related to specific work orders.
Work Order Instructions (F4802)	Stores description text and the various record types that are defined in the user defined codes, such as Description of Request and Final Disposition.
Work Order Status Action (F4826)	Maintains information about the order of allowed statuses through which a work order must pass.
Work Order Approval Routing (F4827)	Maintains reject statuses for work orders, according to work order type.

Bill of Material Master (F3002)	Stores information about the parts needed to perform a specific type of maintenance.
Routing Master (F3003)	Stores detailed instructions by labor step for a specific type of maintenance.
Forecast Table (F3460)	Stores the forecast data that the Material Requirements Planning (MRP) program uses for calculation.
Default Accounting Constants (F12002)	Maintains default account information by company and asset cost account.
Default Depreciation Constants (F12003)	Maintains default information by company and asset cost account of all depreciation books and values.
User Defined Codes (F0005)	Contains all user defined system values.
Address Book Master (F0101)	Contains tax assessor and equipment user address information.
Account Master (F0901)	Maintains general ledger account data.
Automatic Accounting Instructions Master (F0012)	Contains information used to define the interfaces between Equipment/Plant Management and the General Accounting chart of accounts.

Equipment/Plant Maintenance Menu Overview

J.D. Edwards systems are menu driven. System functions are organized according to their frequency of use. Access Equipment/Plant Maintenance menus from the Equipment/Plant Management menu (G13).

Menu Overview - Equipment/Plant Maintenance

Equipment/Plant Management G13



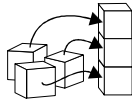
Daily Processes

- * Equipment Information G1311
 - * Supplemental Data G1318
- * Cost Inquiries and Reports G1312
- * Equipment Location Tracking G1314
- * Equipment/Plant Maintenance G1315
- * Equipment Work Orders G1316
 - * Work Order Processing G1317



Periodic Processes

- * Maintenance Planning G1322
- * Material Planning G1323
- * Labor Planning G1324



Setup Processes

- * Equipment/Plant Management Setup G1341
- * User Defined Codes G1342
- * Supplemental Data G1344
- * Preventive Maintenance G1345
- * Work Order Setup G4841
- * Planning Setup G1346



Advanced and Technical Processes

- * Advanced Operations G1331
- * Fixed Assets Global Updates G1231
- * Work Order Purge G3131

Equipment Information

Equipment Master Information

Equipment master information is the primary data associated with the equipment in your system and is made up of many equipment masters. You create an equipment master for each piece of equipment in your system. The equipment master establishes the basic information about a piece of equipment, such as the following:

- Identification numbers
- Description
- Category codes
- Account coding
- Dates
- Location
- Status

You must identify every piece of your equipment in the system before you can use the maintenance features in Equipment/Plant Management. After you create equipment masters for your equipment, you can use the information to do the following:

- Search for equipment status, location, and activity online
- Track historical, current, and planned physical locations for a piece of equipment
- Relocate equipment
- Keep detailed maintenance and project logs
- View assembly components individually or in groups
- Revise parent and component relationships
- Revise equipment status

Equipment master information consists of the following tasks:

- Creating an equipment master
- Working with equipment information
- Working with equipment locations

How Does the System Use Equipment Master Information?

Master information about your equipment is central to several J.D. Edwards systems in addition to the maintenance features in Equipment/Plant Management. When you establish master information about your equipment, you should consider the following topics:

- Types of equipment identification information
- Category codes and equipment identification
- Equipment identification numbers
- Parent and component relationships

These topics are summarized below.

Types of Equipment Identification Information

Equipment identification consists of the following four types of information:

- Equipment master
- Supplemental data
- Specification data
- Message logs

To use the system's management features, such as scheduling equipment for preventive maintenance and tracking maintenance costs, you must create an equipment master for every piece of equipment. You can also include supplemental data and message logs to further define equipment in the system.

Equipment Master

The equipment master is a repository of the standard information related to a specific piece of equipment. To manage equipment inventory, costs, warranties, billing, preventive maintenance, and so on, you must create an equipment master for every piece of equipment in your system.

In Equipment/Plant Maintenance, you use the equipment master to do the following:

- Set up equipment for maintenance processing
- Set up parent/component relationships and track components as both equipment and inventory

- Link parts inventory to specific equipment

For example, you can set up PM schedules for a large ventilation fan. You can identify a motor from inventory as one of the components of a fan. You can set up PM schedules for the motor and attach parts lists to both the motor and the fan.

Supplemental Data

You can use supplemental data to record information that is important to your organization but is not included on the equipment master. Supplemental data is entirely user defined. You can use columnar and text formats to enter supplemental data. To prevent users from viewing information for which they are not authorized, you can also establish security by user identification.

Specification Data

You can use specification data to record and track static information not included on the equipment master. For example, you might need to store nameplate data to which you can refer for correspondence regarding warranties.

Message Logs

Use message logs to communicate information such as status and condition about a piece of equipment. You can associate message logs with equipment to record operator notes or maintenance problems. You can also attach tickler dates to maintenance-due messages so that they will appear at specified dates or intervals based on units such as miles or hours.

Depending on the type of information that you want to maintain, you can use equipment messages to meet any of your information needs. Use equipment messages to do the following:

- Note special procedures for scheduled or preventive maintenance tasks
- Report on actual maintenance
- Log problems or complaints about a specific piece of equipment

Category Codes and Equipment Identification

You can define up to 23 category codes to meet your organization's information needs. Use these category codes in the equipment master to further describe equipment and group similar types of equipment for ease of tracking, reporting, and data selection throughout the system.

If you use Equipment/Plant Maintenance with the Fixed Assets system, the two systems access the same category code tables. Equipment/Plant Maintenance users frequently use the first 10 category codes as selection criteria for several tasks, such as selecting equipment for updating meter readings, updating PM schedules, and so on. You should reserve as many of the first 10 category codes in the equipment master as you need for equipment maintenance purposes.

Equipment Identification Numbers

You can use up to three kinds of numbers to identify equipment throughout your system:

- Equipment number
- Unit number
- Serial number

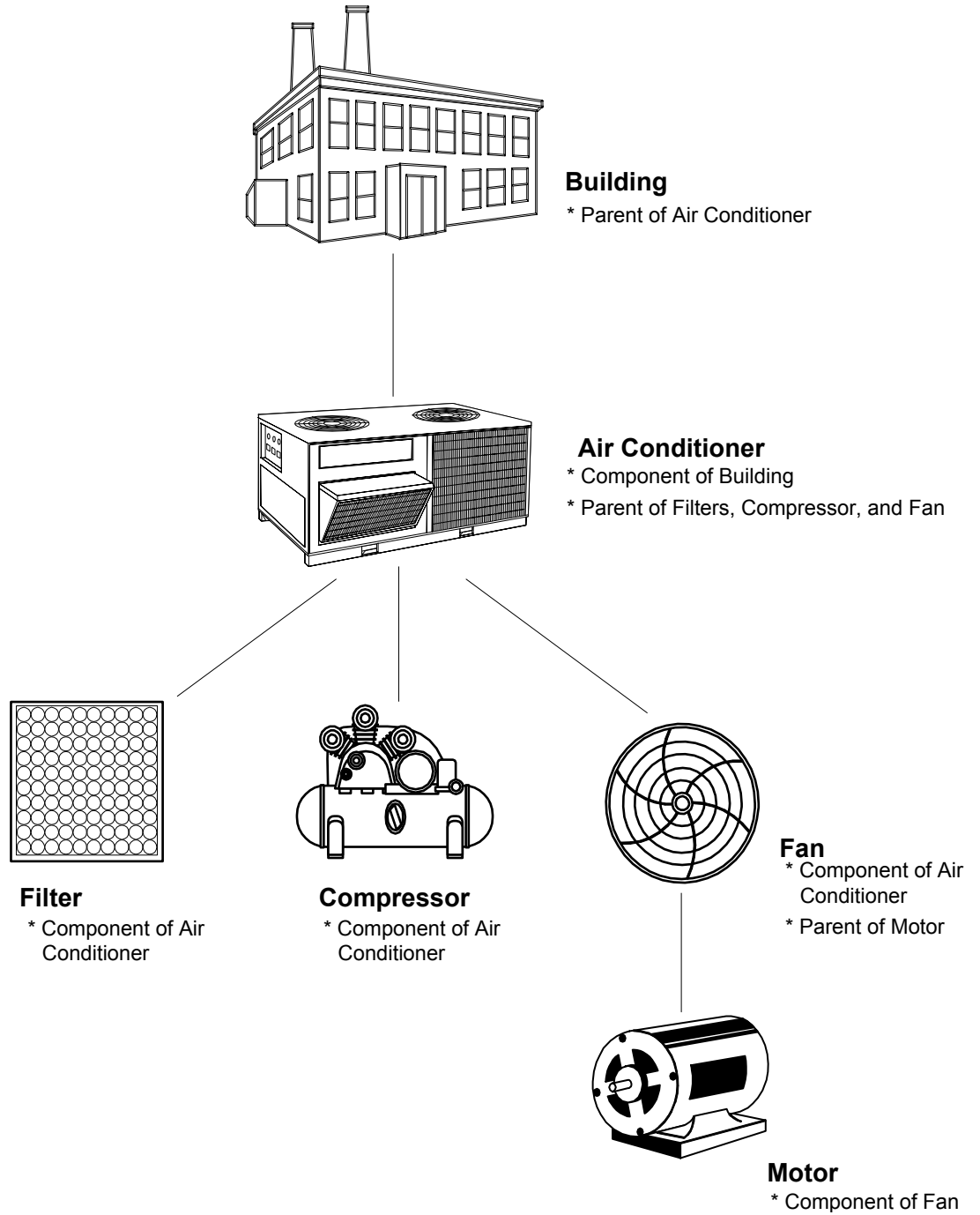
Every equipment master in your system must include an asset number. You can also enter unit and serial numbers. You must define which of these numbers is used as the primary number for identifying equipment in your system. Any identification number that you assign to a piece of equipment on the equipment master must be unique throughout your entire system.

Parent and Component Relationships

You can set up parent and component relationships to group pieces of equipment. For example, when you create master information, you can identify a building as a parent of other equipment. One of its components might be an air conditioner. A component can also be the parent of other equipment. For example, the air conditioner might be the parent of a number of components, including a motor, filters, and a compressor. Those components, in turn, might be the parents of still other components, and so on.

You can establish up to 25 hierarchical levels of parent and component relationships. The system assigns each component a number according to its level in the hierarchy. This is particularly useful to track and report on complex equipment assemblies.

The following graphic illustrates a typical relationship between parent and component equipment:



Creating an Equipment Master

The equipment master is a record of basic information about a piece of equipment, such as its description and its identification numbers. In addition, the equipment master includes category code information, account coding information, and a variety of details about the equipment's location, status, and certain associated dates. You must create an equipment master for every piece of equipment that you plan to manage throughout the system.

You can enter an assortment of related equipment information for a piece of equipment as well. For example, you can enter supplemental and specification information, as well as information about permits and licenses.

Equipment master information is stored in the Asset Master table (F1201). The system accesses this table every time you request any type of transaction for a piece of equipment.

Creating an equipment master consists of the following tasks:

- Entering basic equipment information
- Entering supplemental information
- Entering specification information
- Entering permit and license information

See Also

- *Understanding User Defined Codes* for more information about using category codes to classify equipment
- *Mapping Equipment Category Codes* for more information about setting up category code default values for your system

Entering Basic Equipment Information

When you create an equipment master, you first establish basic information about the equipment, such as the following:

- Identification numbers

- Description
- Account coding
- Category codes

Depending on your business needs, you can use up to three kinds of numbers to identify equipment throughout your system. For example, different branches of your company might refer to equipment in different ways. Accounting personnel might prefer to identify equipment by equipment number, whereas maintenance personnel might need to refer to equipment by serial numbers or company-assigned unit numbers.

When you enter basic equipment information, the system automatically inserts default information that you have set up elsewhere, such as the following:

- Balance record information
- Category codes
- Depreciation information

Note: If you use Equipment/Plant Maintenance with the Fixed Assets system, the two systems access the same category code tables. Equipment/Plant Maintenance users frequently use the first 10 category codes as selection criteria for several tasks, such as selecting equipment for updating meter readings and updating PM schedules. You should reserve as many of the first 10 category codes in the equipment master as you need for equipment maintenance purposes. You can use Category Code Mapping to set up your system to use the default values for the category codes to which you want to assign equipment.

Basic equipment information is part of the equipment master and is stored in the Asset Master table (F1201).

Entering basic equipment information consists of the following:

- Entering identification information
- Entering location information
- Assigning category codes to equipment

See Also

- *Working with Version Detail for Interactive Versions* in the *OneWorld Foundation Guide*

► To enter identification information

From the Equipment Information menu (G1311), choose Equipment Master.

1. On Work With Assets, click Add to access Asset Master Revisions.

The screenshot shows a software window titled "Equipment Master - [Asset Master Revisions]". The window has a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", and "Abo". There are also "Links", "Additi...", "OLE...", and "Internet" options. The main area contains several input fields:

- "Last Asset Number Entered" field at the top.
- "Identification" section with fields for "Asset Number", "Unit Number", "Serial Number", and "Parent Number".
- "Description" section with a large text input field.
- "Accounting Information" section with fields for "Company Number", "Responsible BU", "Account Number", "Date Acquired", "Date Disposed", and "AFE".
- "Status" section with a dropdown menu and a "Date" field.
- "Subledger Inact." checkbox.
- "Employee" field.
- "Inventory Number" field at the bottom.

2. On Asset Master Revisions, complete the following fields:

- Description
- Company
- Responsible BU
- Account Number
- Date Acquired

3. Complete the following optional fields:

- Unit Number
- Serial Number
- Parent Number
- Status

4. Complete the following optional maintenance field and click OK:
 - Inventory Number

After you click OK, the system displays a blank Asset Master Revisions form. The asset number for the equipment master that you created appears in the following field:

- Last Asset Number Entered
5. Make a note of the new asset number and click Cancel.
 6. On Work With Assets, complete the following field in the Query by Example row to locate the record for the equipment:
 - Asset Number
 7. Choose the record for the equipment, and from the Row menu, choose Asset Master Information and then Depreciation Information.

LT	Ledger Type Description	Depr Meth	Depr Method Description	Life Mos	Depr Info	Meth Comp	Start Depr	Meth %
AA	General Ledger	01	Straight Line	60		I	1/1/05	
D1	Federal Tax -Book1	04	150% DB Crossover	84	Y	I	1/1/05	
D3	Earn. & Profit-MACR	12	MACRS - 10 Year	120	Y	C	1/1/05	
D4	Alter. Minimum-200%	05	200% DB Crossover	120	Y	I	1/1/05	
D5	MACRS Alternative	13	MACRS Alternative - 10	120	Y	R	1/1/05	

8. On Depreciation Information, verify the default account number for the following optional billing-related field and click OK:
 - Revenue Account

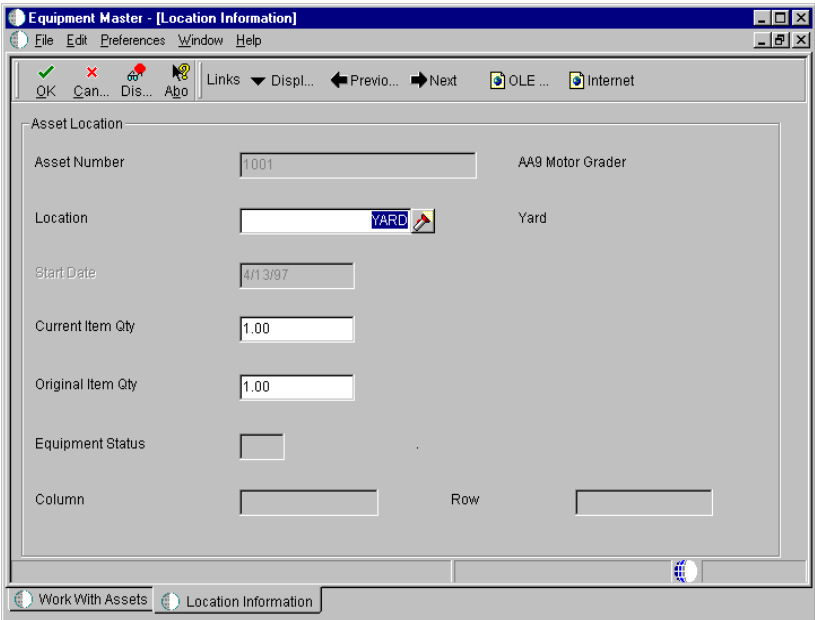
You set up the default value for this field in Depreciation Default Coding. See *Setting Up Depreciation Default Coding* for more information.

After you enter equipment fundamentals, you can enter location information as well as category codes, and tax and financing information.

► To enter location information

From the Equipment Information menu (G1311), choose Equipment Master.

1. On Work With Assets, complete the steps to locate a piece of equipment. See *Searching for Equipment*.
2. Choose the record and then from the Row menu, choose Asset Location Info and then Location.



3. On Location Information, complete the following fields:

- Location
- Start Date

The fields above might already contain default values from processing options.

- Current Item Qty
- Original Item Qty

After you enter location information for a piece of equipment, you can assign category codes and enter additional information, such as financing and tax information.

► To assign category codes to equipment

From the Equipment Information menu (G1311), choose Equipment Master.

1. On Work With Assets, complete the steps to locate a piece of equipment.
See *Searching for Equipment*.
2. Choose the record and then from the Row menu, choose Asset Master Info and then Cat Codes 1-20.

Category Codes	
Asset Number	1001 AA9 Motor Grader
Acctg Class	80 Heavy Equipment Cat. Code 11
Equip Class	3TM MOTOR GRADERS Cat. Code 12
Manufacturer	CAT Caterpillar Cat. Code 13
Model Year	05 2005 Cat. Code 14
Usage	HR Hours Cat. Code 15
Cat. Code 6	Cat. Code 16
Cat. Code 7	Cat. Code 17
Cat. Code 8	Cat. Code 18
Cat. Code 9	Cat. Code 19
Rate Group	Cat. Code 20

3. On Asset Master - Category Code Revisions, complete any of the fields to assign category codes to a piece of equipment.
4. From the Form menu, choose Additional Information.

5. On Additional Asset Information, complete any of the following fields to assign additional category codes:
 - Category Code 21
 - Category Code 22
 - Category Code 23

6. Complete any of the following fields to further identify the equipment and click OK:
 - Remarks
 - New or Used
 - Financing Method
 - State/Province
 - Tax Entity
 - Investment Tax Credit

Field	Explanation
Company	<p>A code that identifies a specific organization, fund, entity, and so on. The company code must already exist in the Company Constants table (F0010) and must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>Note: You can use Company 00000 for default values, such as dates and automatic accounting instructions. You cannot use Company 00000 for transaction entries.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The system uses the company number from the parent master record as a default value for the Company Number field when you set up parent/component relationships.</p>
Responsible BU	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p> <p>.....<i>Form-specific information</i>.....</p> <p>If you want the asset or accumulated depreciation business units to use the default value for the responsible business unit, the responsible business unit and company number must be in the same company. You set up the default business unit on the Fixed Assets Constants form.</p>
Account Number	<p>A field that identifies an account in the general ledger. You can use one of the following formats for account numbers:</p> <ul style="list-style-type: none"> • Standard account number (business unit.object.subsidiary or flexible format) • Third G/L number (maximum of 25 digits) • 8-digit short account ID number • Speed code <p>The first character of the account indicates the format of the account number. You define the account format in the General Accounting Constants program.</p>

Field	Explanation
Date Acquired	<p>The date your company acquired the equipment. If you use J.D. Edwards Fixed Assets, the system also uses this date as the date on which to start depreciation for the equipment. If you want the system to calculate depreciation from a date other than the date acquired, you can change the start depreciation date on the Depreciation and Accounting Values form.</p>
Unit Number	<p>An alternate identification code that a company assigns to assets. This is commonly the number stenciled on the equipment. You can enter alphanumeric unit numbers up to 12-characters long. You are not required to use a unit number to identify equipment. Every equipment unit number must be unique.</p>
Serial Number	<p>A 25-character alphanumeric number that you can use as an alternate asset identification number. You might use this number to track assets by the manufacturer's serial number. You are not required to use a serial number to identify an asset. Every serial number that you enter must be unique.</p>
Parent Number	<p>An identification code for an asset that you can enter in one of the following formats:</p> <ol style="list-style-type: none"> <li data-bbox="792 963 1357 1026">1 Asset number (a computer-assigned, 8-digit, numeric control number) <li data-bbox="792 1031 1406 1058">2 Unit number (a 12-character alphanumeric field) <li data-bbox="792 1062 1414 1089">3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p> <p>.....<i>Form-specific information</i>.....</p> <p>A number that identifies the immediate parent asset in a parent/component relationship. For example, a car phone and radar detector are components that belong to a car. If you leave this field blank, the system uses the asset's primary identification number. If you change the parent number, the system displays a window so you can enter the date on which you assigned the asset a new parent.</p>

Field	Explanation
Status	<p>A user defined code (12/ES) that identifies the equipment or disposal status of an asset, such as available, down, or disposed.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The system updates the value in this field when you run the Asset Disposal program to dispose of the asset.</p>
Inventory Number	<p>A number that the system assigns to an item. It can be in short, long, or third item number format.</p> <p>For process work orders, the item number is the process.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is a number assigned in the Inventory Management system that identifies equipment repair parts, parts lists, and routings that relate to this asset or piece of equipment. For example, the number could identify a replacement part for which inventory is maintained. This number could also identify the parts list and routing used to maintain this piece of equipment. The inventory number is informational only and is edited against the Inventory Master.</p>
Last Asset Number Entered	<p>An 8-digit number that uniquely identifies an asset.</p>
Asset Number	<p>An 8-digit number that uniquely identifies an asset.</p>
Revenue Account	<p>A field that identifies an account in the general ledger. You can use one of the following formats for account numbers:</p> <ul style="list-style-type: none"> • Standard account number (business unit.object.subsidiary or flexible format) • Third G/L number (maximum of 25 digits) • 8-digit short account ID number • Speed code <p>The first character of the account indicates the format of the account number. You define the account format in the General Accounting Constants program.</p>
Location	<p>The current physical location of an asset. Location must be a valid business unit or job number in the Business Unit Master table (F0006).</p>

Field	Explanation
Start Date	<p>The date on which an address, item, transaction, or table becomes active, or the date from which you want transactions to appear. The way the system uses this field depends on the program. For example, the date that you enter in this field might indicate when a change of address becomes effective, or it could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, and so on.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The date that an asset was transferred to its current location.</p> <p>Note: After you create the master record, you must use the Asset Transfer or Transfer Processing programs to make changes to this field.</p>
Current Item Qty	<p>This is the current number of units for an asset. The current item quantity is used in conjunction with the original quantity. The Current Item Quantity field should always reflect the current or remaining amount of units.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The default value for this field is 1. If you dispose of a portion of an asset's original quantity, you should adjust the current quantity downward to reflect the amount actually remaining. If you change the current quantity for an asset, a window appears so that you can enter a location and effective date for the quantity change. If you split an asset, the system automatically updates this field.</p>
Original Item Qty	<p>The original number of units for an asset. If assets are purchased and accounted for in quantities (more than one), you can specify the original quantity purchased. For example, if you purchase 100 office chairs, you would set up one asset item with an original quantity of 100. Then, as you disposed of office chairs, you would adjust the current quantity to reflect the current balance. This adjustment allows you to track assets purchased in bulk quantity on one master record.</p>
Amount - Investment Tax Credit	<p>The amount of investment tax credit (ITC) to be considered in depreciation calculations.</p>
New or Used	<p>A code of N indicates a new asset. A code of U indicates a used asset. This code is used in computing the ITC limitation on the acquisition of used assets.</p>
Financing Method	<p>A user defined code (12/FM) that designates how a fixed asset was acquired. For example, financed or purchased outright.</p>

Field	Explanation
State/Province	A user defined code (00/S) for the state or province. This code is usually a postal service abbreviation.
Tax Entity	The address number of the tax authority to which property taxes are paid.

See Also

- *Working With Equipment Locations*
- *Searching for Equipment*

Processing Options for Asset Master Information (P1201)

Edits

1. Enter a '1' to require the entry of a unit number when doing an add.

Selection Value _____

Defaults

1. Enter a '1' to default the location from the responsible business unit.

Selection Value _____

2. Enter a '1' to default the location start effective date from the date acquired. This will only occur if the location start effective date is left blank. Leave blank to default the location start effective date from the system date.

Selection Value _____

3. Enter a '1' to default the cost account information from the parent asset when adding children assets.

Selection Value _____

4. Enter a '1' to automatically create asset account balances (F1202). Leave blank to not create asset account balances. Note: Account balances are needed to track cost, depreciation, etc. on an asset.

Selection Value _____

Export

1. Enter the transaction type for the export transaction. If left blank,

interoperability processing will not be performed.

Transaction Type _____

- 2. Enter the outbound processor version to call when performing interoperability processing. If left blank, XJDE0002 will be used.

Version _____

What You Should Know About Processing Options

Accessing processing options for Asset Master You use Work With Interactive Versions (P983051) to access the processing options for this program (P1201). Equipment/Plant Management shares this program with the Fixed Asset system.

See *Working With Interactive Versions* in the *OneWorld Foundation Guide*.

Entering Supplemental Information

You can enter a variety of supplemental information for a piece of equipment. Use supplemental information to further track, review, and report on the equipment in your system. You set up and maintain supplemental information by defining supplemental data types and entering information appropriate for each supplemental data type. You define as many supplemental data types as you need. For example, you might set up supplemental information for motor graders that includes supplemental data types such as vibration readings, oil readings, condition reports, and so on.

When you define supplemental data types, you specify the format in which you want to record and track information. Valid formats include the following:

Code For supplemental data types in code format, you enter information in predefined columns. When you enter information in code format, you can also associate narrative information with it.

Narrative For supplemental data types in narrative format, you enter free-form text.

When you need to review supplemental information for a piece of equipment, you can quickly determine whether a particular supplemental data type contains

information. On Work With Supplemental Data, a check mark appears in the leftmost field (unlabeled) next to rows for which supplemental data in code format has been entered. In addition, regardless of the data format, if narrative data exists for a supplemental data type, a paper clip appears when you place the mouse pointer over the field. Equipment users use the supplemental database for Asset Management (AM).

Entering supplemental information consists of the following tasks:

- Entering supplemental data in code format
- Entering supplemental data in narrative format

Before You Begin

- Set up supplemental data types for supplemental information. See *Defining Supplemental Data Types*.

Entering Supplemental Data in Code Format

When you enter supplemental data in code format, the information appears in predefined columns. For example, the form for entering oil readings might have columns for oil contaminant, date, description, and amount.

To ensure consistency of data entry, the fields that require supplemental data are typically associated with specific user defined code tables, or generic rates and messages tables. Any value that you enter in one of these fields must be included in the associated user defined code table or generic rates and messages table. For example, assume that you have set up a supplemental data type for oil readings that includes a field for oil contaminants. Further, assume that you associated the field for oil contaminants with a user defined code table. The user defined code table might list all of the valid oil contaminants for which you analyze data. If you attempt to enter a contaminant that is not included in the user defined code table, an error message appears.

► To enter supplemental data in code format

From the Supplemental Data menu (G1318), choose Data Entry.

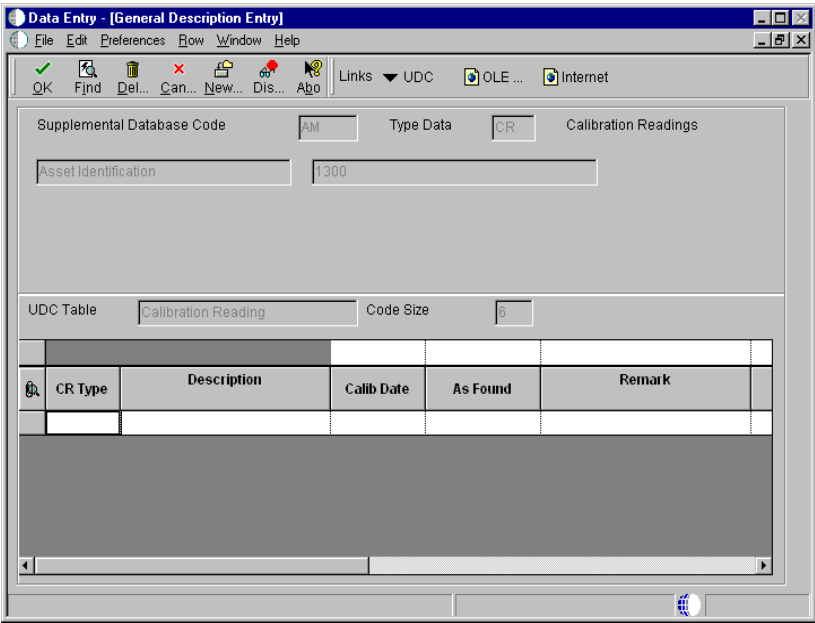
1. On Work With Supplemental Data, to display a list of valid supplemental data types for a piece of equipment, complete the following field with the equipment number for the piece of equipment and click Find:

- Supplemental Database Code

The name of this field corresponds to the Row Description for the Generic Numeric Key 1 on Supplemental Database Setup. J.D. Edwards defines this field as Asset Identification for the Asset Management database. Regardless of how equipment constants are set up, you must enter an equipment number.

2. Choose the row for the supplemental data type where you want to enter supplemental data and click Select.

Supplemental data types that are in code format contain a C in the Data Mode field.



3. On General Description Entry, complete the appropriate fields for this supplemental data type in the detail portion of the form and click OK.
4. To enter additional narrative information about the data, choose the row for the supplemental data type on Work With Supplemental Data, and then choose Attachments from the Row menu.

The system displays Media Objects.

Field	Explanation
Supplemental Database Code	A code that you use to set up databases for groups of related supplemental data types. This code differentiates the supplemental data types for various systems. For example, the Employee (E) supplemental database contains data types that you use to track additional employee information, such as education and job skills. The supplemental database code is used only in the OneWorld version of the Supplemental Database.

See Also

- *Working With Media Objects* in the *OneWorld Foundation Guide* for more information about entering narrative information

Entering Supplemental Data in Narrative Format

When you enter supplemental data in narrative format, you enter free-form text. For example, you might set up a supplemental data type for transportation notes in narrative format and use it to record general information regarding equipment relocation.

You can determine whether narrative data exists for a particular supplemental data type by the presence of a paper clip in the leftmost field (unlabeled) on Work With Supplemental Data when you place the mouse pointer over the field.

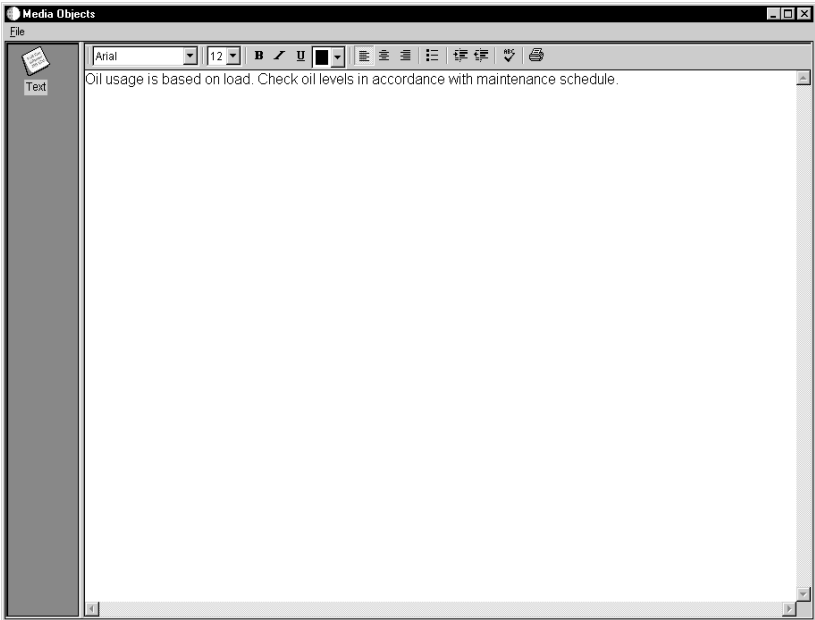
► To enter supplemental data in narrative format

From the Supplemental Data menu (G1318), choose Data Entry.

1. On Work With Supplemental Data, to display a list of valid supplemental data types for a piece of equipment, complete the following field with the equipment number for the piece of equipment and click Find:
 - Supplemental Database Code

The name of this field corresponds to the Row Description for the Generic Numeric Key 1 on Supplemental Database Setup. J.D. Edwards defines this field as Asset Identification for the Asset Management database. Regardless of how equipment constants are set up, you must enter an equipment number.

- 2. Choose the row for the supplemental data type to which you want to enter supplemental data and click Select.
Supplemental data types that are in narrative format contain an N in the Data Mode field.



- 3. On Media Objects, choose Add from the File menu, then choose Text.
- 4. Enter the appropriate information, and then choose Save & Exit from the File menu.

Processing Options for Supplemental Data (P00092)

Processing

- 1. Select the Supplemental Database Code for the system you would like to create a central information index for. _____
- 2. Enter a '1' if the system should not assign an ending effective date when the field is left blank. _____

What You Should Know About Processing Options

Choosing a supplemental database code Equipment users use the supplemental database for Asset Management.

Entering Specification Information

Use specification data to enter static information for each piece of equipment. For example, you might set up specification data to record and report on the information from the equipment's nameplate and the manufacturer's specification sheets.

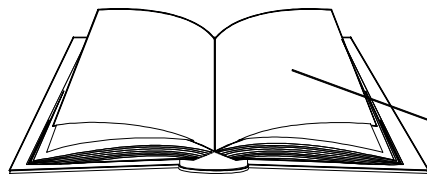
The following graphic illustrates where you can obtain the static information on the equipment.

Equipment name plate

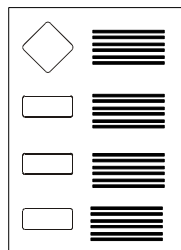
AC Motor			
Frame 120			
H.P.	1 1/2	Type	PEB15
Cycles	60	Volts	240
RPM	3450	Phase	3
		Amps	3.0

Serial # 1105A768479

Machinery Manual



Specifications Sheet



Equipment nameplates A nameplate is the metal plate attached to a piece of equipment. The nameplate often includes information about the equipment, such as the following:

- Model number
- Power requirements
- Manufacture date

Specification sheets Specification sheets come from the equipment manufacturer. Specification sheets include specific information about a piece of equipment, such as the following:

- Operating and safety instructions
- Power
- Dimensions

You can define the specification data that you want to keep, in which positions the data is entered, and the length of the data fields. You can also set up the specification database so that the system will edit the data against user defined code tables.

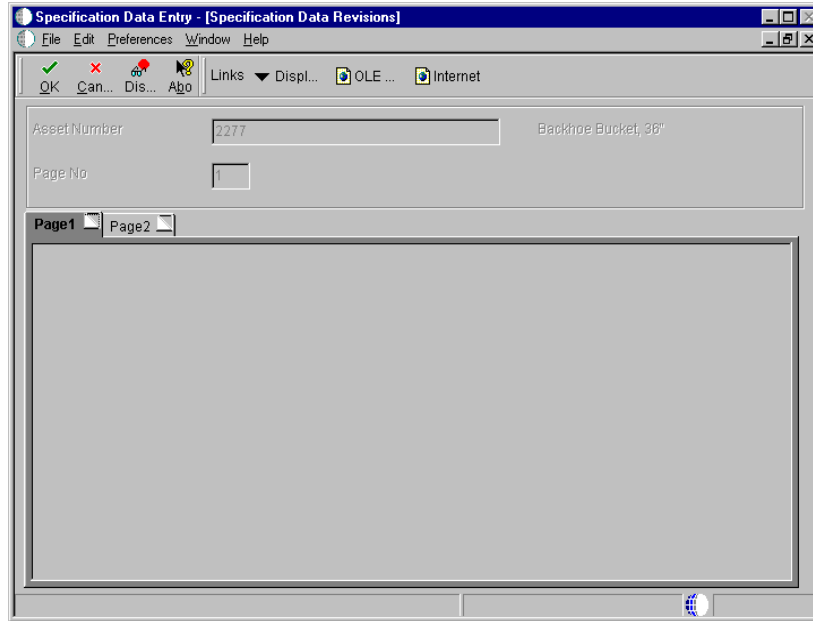
Before You Begin

- Set up specification types for specification information. See *Setting Up Specification Data*.

▶ To enter specification information

From the Supplemental Data menu (G1318), choose Specification Data Entry.

1. On Work With Specification Data, complete the following fields and click Add to access Specification Data Revisions:
 - Asset Number
 - Page Number



2. On Specification Data Revisions, complete all appropriate fields and click OK.

The fields that appear on this form vary, depending on how you set up Specification Cross Reference Revisions. Work With Specification Data reappears. Exit or enter another equipment number for which you want to enter specification information.

Field	Explanation
Asset Number	An 8-digit number that uniquely identifies an asset.
Page No	This is the page number within the Specification Sheets. The Specification Data file (F1216) contains only 32 fields per page. If a particular class of equipment needs more than 32 fields to store the static data, you will have to create a new page number with the file.

See Also

- *Setting Up Specification Data*

Entering Permit and License Information

Enter permit and license information to record permits, licenses, and certificates for equipment. You can also track renewal dates and multiple state licenses. For example, you can track certification information for equipment, such as bridge cranes, and license renewal information for equipment that you transport to areas under different licensing authorities.

► To enter permit and license information

From the Equipment Information menu (G1311), choose Permit/License Information.

1. On Permit/License Information, complete the following field and click Find:
 - Equipment Number
2. Complete the following fields:
 - State
 - License Number
3. Complete the following optional fields and click OK:
 - Renewal Date
 - Amount - License Fee
 - Address Number - Licensing Agency

Field	Explanation
Equipment Number	<p>An identification code for an asset that you can enter in one of the following formats:</p> <ol style="list-style-type: none"> 1 Asset number (a computer-assigned, 8-digit, numeric control number) 2 Unit number (a 12-character alphanumeric field) 3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p>
ST	A user defined code (00/S) for the state or province. This code is usually a postal service abbreviation.
License Number	The license number, used in combination with the license state, and renewal date fields, allows you to enter specific vehicle licensing data.

Equipment-Plant Maintenance

Field	Explanation
Renewal Date	The license renewal date, used in combination with the license state, number and agency fields, allows you to enter specific vehicle licensing data. You can then print a tickler report of license renewals by state using the License Renewal report (P12423).
License Fee	The license fee amount for this piece of equipment.
Issuing Agency	Identifies the agency responsible for issuing this license. This is an address book number, which allows for a telephone number and address information.

Working with Equipment Information

After you create equipment masters, you can perform a variety of tasks to manage the information about the equipment. For example, you can do the following:

- Search for specific pieces of equipment or groups of related equipment
- Review a list of additional equipment information based on a particular supplemental data type
- Attach and review messages about the equipment
- Change the location and status of equipment
- Track relationships between parent equipment and component equipment

Working with equipment information consists of the following tasks:

- Searching for equipment
- Reviewing supplemental information
- Working with message logs
- Tracking equipment status
- Working with parent and component information

Searching for Equipment

You can use Equipment Search to locate any piece of equipment. For example, if you need to transfer a piece of equipment, but you don't know its identification number, you can locate the equipment by entering the description of the equipment on Equipment Search. You can also use the other equipment information that you know, such as equipment status or location, to search for all pieces of equipment that share the same characteristics.

The following graphic illustrates the criteria by which you can search for equipment, and many of the features that you can access directly from Equipment Search:



Search for Equipment by:

- Company
- Equipment Status
- Description
- Responsible Business Unit
- Location
- Category Codes



Exit to:

- Equipment Master
- Location Transfer
- Parent History Inquiry
- Search Like Equipment
- Message Log
- Cost Summary
- Location History
- License Tracking
- Work Order Backlog
- Equipment Backlog
- Supplemental Data
- PM Schedule
- Completed PM
- Supplemental Data

When you search for equipment, you can locate multiple pieces of similar equipment or individual pieces of equipment. The more fields you complete on the search forms, the more you narrow your search.

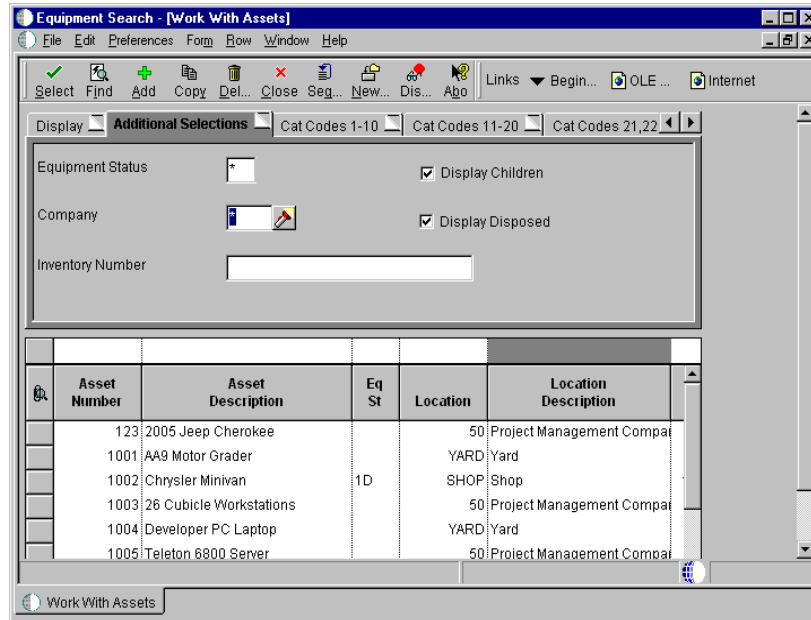
For example, if you need to see a list of all of your company's backhoes, you can enter as much information as you know about the backhoes. The system searches the equipment information databases and displays all equipment that meets the criteria that you enter in the fields.

► To search for equipment information

From the Equipment Information menu (G1311), choose Equipment Search.

1. On Work With Assets, click the Display tab.
2. Complete any combination of the following fields:

- Skip To Description
 - Resp. Business Unit
 - Location
 - Skip To Asset
3. Click the Additional Selections tab.



4. Complete any combination of the following fields to further narrow your search to specific equipment:
- Equipment Status
 - Company
 - Display Children
 - Display Disposed
 - Inventory Number
5. Click the Cat Codes 1-10 tab.
6. Complete any of the Category Code fields to further narrow your search to specific equipment.

After you enter category code information, you can click either of the remaining Category Code tabs and enter additional category codes to further narrow your search.

7. Click Find.

All equipment that matches your search criteria appears in the detail portion of the form.

8. To review the equipment master for a particular piece of equipment, choose its record, and then click Select.

Asset Master Revisions appears for the piece of equipment.

Field	Explanation
Resp. Business Unit	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>
Location	<p>The current physical location of an asset. Location must be a valid business unit or job number in the Business Unit Master table (F0006).</p>
Skip To Asset	<p>An identification code for an asset that you can enter in one of the following formats:</p> <ol style="list-style-type: none"> 1 Asset number (a computer-assigned, 8-digit, numeric control number) 2 Unit number (a 12-character alphanumeric field) 3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p>

Field	Explanation
Equipment Status	A user defined code (12/ES) that identifies the equipment or disposal status of an asset, such as available, down, or disposed.
Company	<p>A code that identifies a specific organization, fund, entity, and so on. The company code must already exist in the Company Constants table (F0010) and must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>Note: You can use Company 00000 for default values, such as dates and automatic accounting instructions. You cannot use Company 00000 for transaction entries.</p>
Display Children	<p>A code that indicates whether you want children (components) to appear with their associated parent assets. Valid codes are:</p> <ul style="list-style-type: none"> On Both children and parent assets appear Off Only parent assets appear
Display Disposed	<p>A code that indicates whether you want disposed assets to appear. Valid values are:</p> <ul style="list-style-type: none"> On All selected assets appear, regardless of their disposal status Off Disposed assets do not appear
Inventory Number	<p>A number that the system assigns to an item. It can be in short, long, or third item number format.</p> <p>For process work orders, the item number is the process.</p>

See Also

- *Entering Basic Asset Information* in the *Fixed Asset Guide* for the processing options for this program

Reviewing Supplemental Information

You can review a list of additional equipment information based on a particular supplemental data type. For example, assume that you have set up a supplemental data type for capacity. You can review a list of all equipment for which you have assigned the supplemental data type for capacity. You can use date selections to limit the amount of information that the system displays. You can also review a list of the additional information by supplemental data type that you assigned to individual pieces of equipment. For example, you can review information for all supplemental data types that you assigned to a particular motor grader.

Reviewing supplemental information consists of the following tasks:

- Reviewing supplemental information by data type
- Reviewing supplemental information by asset

► To review supplemental information by data type

From the Supplemental Data menu (G1318), choose Supplemental Data Inquiry by Data Type.

1. On Supplemental Inquiry by Data Type, complete the following field:
 - Type Data
2. To limit the information that the system displays, complete the following optional fields and click Find:
 - Effective Date
 - Ending Effective Date
 - Skip to UDC

Field	Explanation
Type Data	A code that you assign to supplemental data so that you can group data by categories.
Effective Date	The effective date is used generically. It can be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.
Ending Effective Date	The date on which the item, transaction, or table becomes inactive or through which you want transactions to appear. This field is used generically throughout the system. It could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.

► To review supplemental information by asset

From the Supplemental Data menu (G1318), choose Supplemental Data Inquiry by Asset.

1. On Supplemental Inquiry by Asset, complete the following field:
 - Equipment Number

2. To limit the information that the system displays, complete the following optional fields and click Find:
- Beginning Date
 - Ending Date
 - Parent Number
 - Company
 - Location

Field	Explanation
Equipment Number	<p>An identification code for an asset that you can enter in one of the following formats:</p> <ol style="list-style-type: none"> 1 Asset number (a computer-assigned, 8-digit, numeric control number) 2 Unit number (a 12-character alphanumeric field) 3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p>
Beginning Date	Beginning date of a recurring scheduled job. (i.e. Every Monday, beginning Jan. 1)
Ending Date	Use this field to specify the ending date of a recurring scheduled job. For example, run every Wednesday until 12/15.
Parent Number	<p>A parent number groups related components together. Each item of property and piece of equipment can be associated with a parent item, if desired. For example, a mobile telephone can be associated with a specific automobile (the parent), a printer can be associated with a computer (the parent), or a flat bed can be associated with a specific truck chassis (the parent).</p> <p>NOTE: If this is a data entry field, the default value is the asset number. For example, if the asset number is 123, the system assigns 123 to the parent number.</p>

Field	Explanation
Company	<p>A code that identifies the company that owns or is assigned to an asset or group of assets. You set up companies in the system to represent a reporting level that has a complete balance sheet and any intercompany transactions with other companies. You can define a specific organization, entity, partnership, and so on, as a company. You use company numbers and names to define the companies in your system.</p> <p>Note: Use Company 00000 only for default values, such as dates and automatic accounting instructions (AAIs). You cannot use Company 00000 when entering transactions.</p>
Location	<p>The current physical location of an asset. Location must be a valid business unit or job number in the Business Unit Master table (F0006).</p>

Working with Message Logs

You can use message logs to enter short text messages that pertain to a piece of equipment. You can also set up tickler dates or units to specify when you want to receive a reminder message for the equipment.

For example, you can indicate a unit meter reading, such as miles or hours, or a specific date when you want an equipment operator to receive a reminder message for the scheduled maintenance of a piece of equipment.

Working with the equipment message log consists of the following tasks:

- Entering an equipment message
- Reviewing equipment messages

Entering an Equipment Message

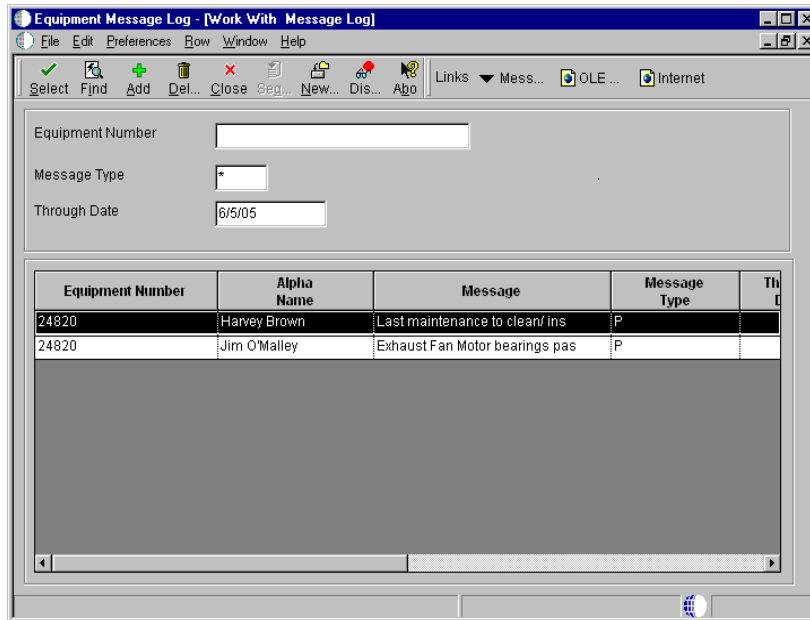
You can classify messages by setting up message types, such as planned and actual maintenance, and problem reports. Use the information that you enter to do the following:

- Track problems and complaints about specific equipment
- Supplement scheduled or preventive maintenance
- Report on actual maintenance

You set up and maintain message types in user defined code table 12/EM.

► To enter an equipment message

From the Equipment Information menu (G1311), choose Equipment Message Log.



The Work With Message Log form shows a summarized view of all messages for a particular piece of equipment. You can click Add to enter a new message or you can enter an asset number to display messages and choose a message to review in detail.

1. On Work With Message Log, click Add to access Message Log.

2. On Message Log, complete the following fields:
 - Equipment Number
 - Message From
3. Type a message in the message portion of the form.
4. Complete only one of the following fields:
 - Tickler M/H
 - Tickler Date

If you do not enter a value for Tickler Miles/Hours, the system enters the current date in the Tickler Date field. Any value that you enter in the Tickler Date field overrides the date assigned by the system.

5. Complete the following optional field:
 - Message Type

The Message Type field might already contain a default value.

Field	Explanation
Message From	The text that names or describes an address. This 40-character alphabetic field appears on a number of forms and reports. You can enter dashes, commas, and other special characters, but the system cannot search on them when you use this field to search for a name.

Field	Explanation
Tickler M/H	The meter reading, in units such as miles or hours, at which you want to receive a reminder message about an asset. If you use this field, you must run the Update Message Log program on a regular basis.
Tickler Date	The date that you want to receive a reminder message about an asset.
Message Type	A user defined code (12/EM) that identifies the type of message, such as A for Actual Maintenance or T for Lease Terms. You use different message types for reporting and control purposes.

See Also

- *Understanding User Defined Codes*

Reviewing Equipment Messages

You should periodically review messages to ensure that you have the most current information about a piece of equipment. If a message exists for a piece of equipment, a checkmark appears in the leftmost field (untitled) in the equipment's row on Work With Assets. You can access the Work With Message Log form directly from Work With Assets or from a menu selection.

After you review a message, you can send the message to another piece of equipment if necessary. This is especially useful if the contents of a message can apply to multiple pieces of equipment and you need to quickly copy the message to each piece of equipment.

► To review equipment messages

From the Equipment Information menu (G1311), choose Equipment Message Log.

1. On Work With Message Log, complete the following field:
 - Equipment Number
2. To limit the messages that appear, complete the following fields and click Find:
 - Through Date

- Message Type

3. To review a message in detail, choose the message and click Select.

The screenshot shows a window titled "Equipment Message Log - [Message Log]". The window has a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", "Ago", "Links", "Asset...", "OLE...", and "Internet". The main area contains several input fields: "Equipment Number" (24820), "Message Type" (P), "Message From" (Harvey Brown), "Tickler M/H" (empty), "Send To Asset" (empty), and "Tickler Date" (5/1/05). Below these fields is a text area labeled "Message" containing the text: "Last maintenance to clean/ inspect spray heads indicate that the heads will need replaced within the next six months." At the bottom of the window, there are fields for "User" (DEMODATA), "Date" (4/29/97), and "Time" (1143).

4. To attach the message to another piece of equipment, complete the following field and click OK:

- Send To Asset

You can change other information about the message before you attach it to another piece of equipment.

See Also

- *Searching for Equipment*

Processing Options for Equipment Message Log (P1205)

Defaults

Equipment Message Type _____

Process

1. Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

Select Product _____

Tracking Equipment Status

You can review the history of a piece of equipment by the statuses that have been assigned to it, such as available, down, working, and standby. This is especially useful to maintain an audit history of operational statuses and to determine the amount of time that a piece of equipment has been idle due to downtime.

When you access Work With Status History, in addition to the statuses that have been assigned to a piece of equipment, you can also review the following:

- The ending time (if applicable) and beginning time for each status, as well as the associated dates
- The total hours associated with each occurrence of a particular status
- The lifetime meter reading at the time of the status change for any of the statistical accounts that you have defined, such as hours, fuel, or miles
- The cumulative hours for all occurrences of a particular status over the life of the equipment
- Remarks entered when you changed the status of the equipment

From Work With Status History, you can access Downtime Analysis, from which you can determine the mean or average time between equipment failures. This is especially useful when comparing actual equipment downtime with manufacturers' specifications and analyzing the effectiveness of your maintenance program for a particular piece of equipment.

Processing options allow you to revise existing remarks for any status change, enter a new remark, or protect the Remark field from future revisions.

Tracking equipment status consists of the following tasks:

- Reviewing the status history of equipment
- Tracking mean time between failures for equipment

► **To review the status history of equipment**

From the Equipment Information menu (G1311), choose Status History.

On Work With Status History, complete the following field and click Find:

- Equipment Number

A history of each status assigned to the piece of equipment, from its inception to the present, appears.

► **To track mean time between failures for equipment**

From the Equipment Information menu (G1311), choose Status History.

1. On Work With Status History, complete the following field and click Find:
 - Equipment Number
2. To access Downtime Analysis, choose Analysis from the Form menu.

The screenshot shows a software window titled "Status History - [Downtime Analysis]". The window has a menu bar with "File", "Edit", "Preferences", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", "Ab...", "Links", "Displ...", "OLE...", and "Internet". The main content area contains several input fields and labels: "Equipment Number" with the value "1300", "Start Effective Date" with the value "10/31/03", "Ending Effective Date" with the value "7/13/00", "Equipment Downtime Status" (empty), and "Mean Time Between Failures" with the value "0.00". The text "Backhoe, Caterpillar 426" is displayed below the Equipment Number field.

3. On Downtime Analysis, complete the following fields and click OK:
 - Start Effective Date
 - Ending Effective Date
 - Equipment Downtime Status

The mean time between failures appears for the piece of equipment.

Field	Explanation
Start Effective Date	The date on which an address, item, transaction, or table becomes active, or the date from which you want transactions to appear. The way the system uses this field depends on the program. For example, the date that you enter in this field might indicate when a change of address becomes effective, or it could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, and so on.
Ending Effective Date	The date on which the item, transaction, or table becomes inactive or through which you want transactions to appear. This field is used generically throughout the system. It could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.
Equipment Downtime Status	A user defined code (12/ES) that identifies the equipment or disposal status of an asset, such as available, down, or disposed.

Processing Options for Status History (P1307)

Process

1. Enter a '1' to protect the Remarks field. Enter a '2' to protect the Remarks field if it is not blank. Leave blank to allow modifications to the Remarks field.

Protect Remarks _____

2. Enter the Work Day Calendar to use for the calculation of the number of days for Equipment Analysis.

Work Day Calendar _____

3. Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

Select Product _____

Working with Parent and Component Information

After you establish parent and component relationships in the equipment master, you can review all the components for a specific piece of equipment. You can track up to 25 levels of component relationships for a particular parent piece of equipment. Review parent and component information so that you can do the following:

- Report on equipment costs at the parent or component level
- Track all components that have been assigned to a parent, or the parents to which a specific component has been assigned

Working with parent/component information consists of the following tasks:

- Reviewing parent and component history
- Working with equipment components

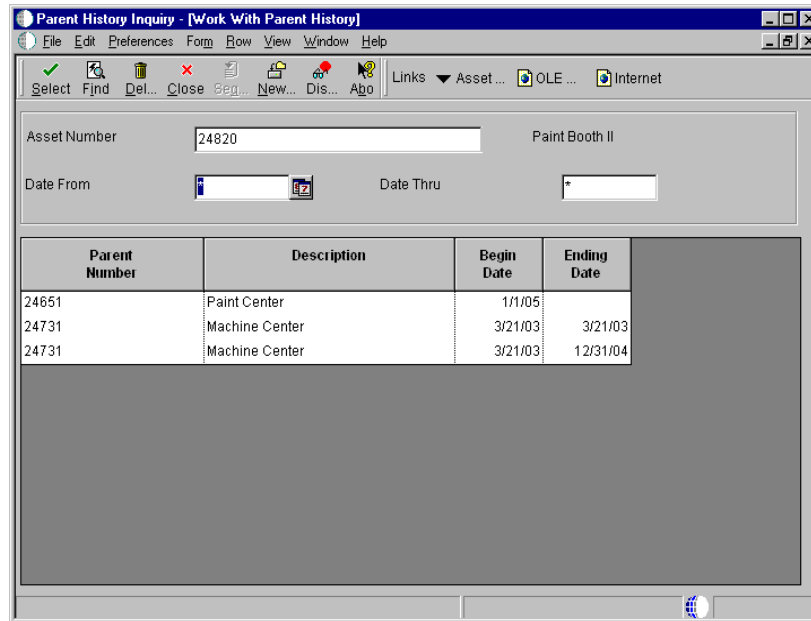
Reviewing Parent and Component History

Use Parent History Inquiry to review parent and component history. You can toggle between parent and component history to display all current or previous parents for a component or all current or previous components for a parent. Use date fields to limit your search to selected dates or leave the date fields blank to review the entire history of a component or parent.

► To review parent and component history

From the Equipment Information menu (G1311), choose Parent History Inquiry.

1. On Work With Parent History, complete the following field and click Find:
 - Asset Number
2. To alternately view parent or component formats, choose either Parent Format or Component Format from the View menu.



Working with Equipment Components

You can use *Work With Equipment Components* to display and revise up to 25 levels of component information for a selected piece of equipment. This is particularly useful for complex equipment assemblies, such as a production line. After you locate a component, you can display its immediate parent or display its components. In addition, you can revise the parent information for individual components and change the sequence of the components.

Working with current equipment components consists of the following tasks:

- Reviewing equipment components
- Revising the parent information for a component
- Changing the sequence of components

► To review equipment components

From the *Equipment Information* menu (G1311), choose *Equipment/Component Relations*.

1. On *Work With Equipment Components*, complete the following field and click *Find*:
 - Asset Number

2. To limit the level of components that appear, complete the following field:
 - Display Level

Related Tasks

Searching for similar equipment

After you have reviewed components for a particular piece of equipment, you can use Work With Equipment Components to search for similar equipment. For example, if you need to find motors within your system similar to a motor that you inquired about, you can use the Search Like Equipment selection from the Row menu to locate other motors in your organization. The system searches for similar equipment, based on the category codes of the equipment about which you inquired.

► To revise parent information for a component

From the Equipment Information menu (G1311), choose Equipment/Component Relations.

1. On Work With Equipment Components, complete the following field and click Find:
 - Asset Number
2. Choose the component whose parent number you want to revise and then click Select.

The screenshot shows a software dialog box titled "Equipment/Component Relations - [Asset Master Revisions]". It contains several input fields for asset information. The "Parent Number" field, located in the "Identification" section, is highlighted with a blue selection box. Other fields include "Asset Number" (24820), "Unit Number" (PB2), "Serial Number", "Description" (Paint Booth II), "Company Number" (00200), "Responsible BU" (M30), "Account Number" (200.2095), "Date Acquired" (1/1/97), "Date Disposed", "AFE", "Status" (AV), "Available - On Job Site Date" (6/1/05), "Time" (12:00:00), "Subledger Inact.", "Active Subledger", "Employee", and "Inventory Number".

3. On Asset Master Revisions, complete the following field and click OK:
- Parent Number

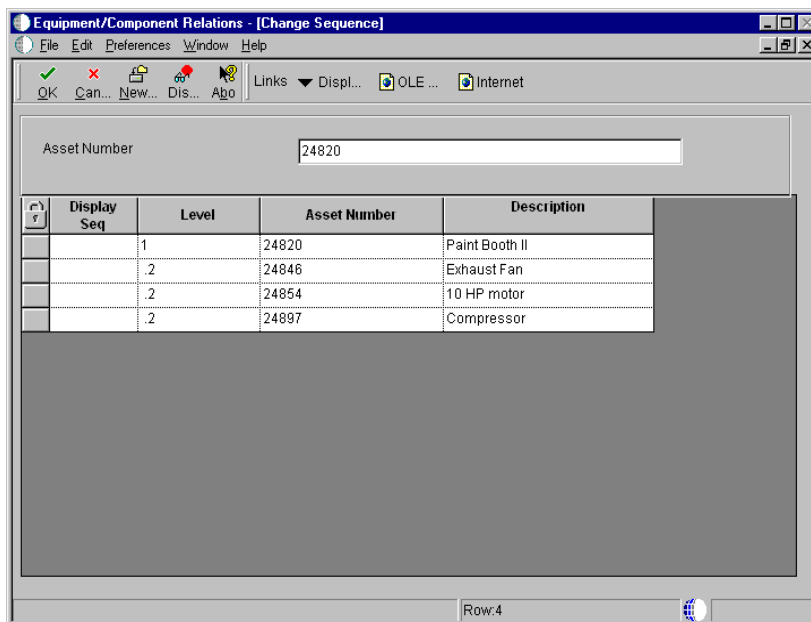
The screenshot shows a software dialog box titled "Equipment/Component Relations - [Parent Change Date]". It contains a large text area with the instruction "Enter the Date this Asset Changed Parent:". Below this, the "Effective Date" field is highlighted with a blue selection box and contains the date "7/13/00".

4. On Parent Change Date, complete the following field and click OK:
- Effective Date

► To change the sequence of components

From the Equipment Information menu (G1311), choose Equipment/Component Relations.

1. On Work With Equipment Components, complete the following field and click Find:
 - Asset Number
2. From the Form menu, choose Change Sequence.



3. On Change Sequence, complete the following field for each component, the sequence of which you want to change, and then click OK:
 - Display Seq

Processing Options for Equipment/Component Relations (P12011)

Defaults

1. Enter the default display level

Display Level _____

2. Enter the default asset number

Asset Number _____

Versions

Enter the default DREAM writer versions

1. Asset Master (P1201) _____
2. Location Inquiring (P12215) _____
3. Backlog Management (P48201) _____
4. Cost Summary (P122101) _____
5. Parent History (P12212) _____

Working with Equipment Locations

You can record equipment location information to indicate where and when equipment is physically moved. You can update equipment location information for planned and current relocations and keep a log of all historical relocations. For example, you can do the following:

- Record equipment relocations from one job or business unit to another
- Create location transactions for single pieces of equipment or groups of equipment
- Relocate equipment from multiple locations to a single location to consolidate multiple tracking records
- Review historical, current, and planned location tracking information
- Record equipment relocations out of sequence
- Associate text with equipment location transactions

Working with equipment location consists of the following tasks:

- Entering location information
- Revising location information

Entering Location Information

You enter equipment location information into the system so you can track equipment locations as you physically transfer equipment from one job site or business unit to another. If you have multiple quantities of an equipment item, such as scaffolding, you can also do the following:

- Relocate quantities of the same equipment item to more than one current location
- Relocate quantities of the same equipment item to a single location from more than one current location

When you update the location information for a piece of equipment, the system automatically updates the following fields in the Asset Master table (F1201):

- Equipment Status

- Location and Start Date (if the current transfer beginning date is greater than the existing location/start date and you have only one current location)

When you relocate partial quantities of a piece of equipment, the system changes the location code of the original location record to a history record for the full quantity of the equipment. In addition, the system creates separate location records for the equipment, as follows:

- For the partial quantity of equipment that remains at the original location, the system creates a new location record with a location code of current
- For the partial quantity of equipment that you relocate, the system creates a new location record with a location code of current

When equipment has multiple current locations, the Location and Start Date fields in the equipment master are blank. The system message *Multiple Current Locations* appears in the location description line.

The system automatically consolidates multiple current locations when you enter location information for multiple pieces of the same equipment that have identical billing information. For example, for equipment that is in multiple locations, if you enter location information that includes identical relocation dates, times, and billing information, the system creates a single location record for the equipment and applies a location code of current to the record.

When you change location information for equipment that is a parent, the system automatically relocates all components that are at the same location as the parent to the new location.

When you enter location information into the system, the system updates the Location Tracking table (F1204).

► To enter location information

From the Equipment Location Tracking menu (G1314), choose Work With Locations.

1. On Work With Locations, complete the following field and click Find:
 - Asset Number
2. Choose the asset and choose Location Transfer from the Row menu. If more than one asset is displayed and you want to transfer all the assets showing, choose Transfer from the Form menu.

Equipment Number	Equipment Description	Location	Location Description	L C	Beg Dat
1002	Chrysler Minivan	SHOP	Shop	C	

3. Choose Clear from the Form menu to clear the information from the equipment's last location.

Note: If you do not clear the information from the form before executing the transfer, information from the last location will be carried to the new location.
4. In the Transfer portion of the form, complete the following required fields:
 - To Location
 - Effective Date
5. In the Transfer portion of the form, complete the following optional fields:
 - From Location
 - Time Stamp - Beginning
 - Transfer Number
6. To transfer one piece of equipment, choose the asset and choose Transfer Rows from the Row menu. To transfer more than one piece of equipment, use the Control key or Shift key to select the assets, then choose Transfer Rows from the Row menu.

Note: Only the assets that have a value of C (current) in the Location Code field will be transferred. Assets with a value of H (historical) in the Location Code field will not be transferred because those records are shown as an audit trail for the transfer program.

Field	Explanation
To Location	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>
Effective Date	<p>The effective date is used generically. It can be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The location start date for this piece of equipment.</p> <p>When you specify dates for location information, note the following guidelines:</p> <ul style="list-style-type: none"> • The system will not accept location information if the relocation date is after the equipment's disposal date. • Any location information that you enter with a date after the system date must have a location code of Planned (P).
From Location	<p>Identifies a separate entity within a business for which you wish to track costs, for example, a warehouse location, job, project, work center, or branch/plant. The business unit field is alphanumeric.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, and so forth, for responsibility reporting. The system provides reports of open A/P and A/R by business unit, for example, to track equipment by responsible department.</p> <p>Business Unit Security can prevent you from inquiring on business units for which you have no authority.</p>
Beginning Time	<p>The amount of time between the date and time that you enter the call and the date and time that you assign the call.</p>
Transfer Number	<p>A number that identifies a transfer record for an asset or group of assets. You can assign this number to new transfer records. If you leave this field blank when you perform a location transfer, the system assigns the transfer record a number from Next Numbers.</p>

Related Tasks

Entering location information out of sequence

You enter location information out of sequence when you record the relocation of equipment from a location where it does not currently reside. If you do not change the From Location field, the system sorts the location records by date and determines whether to create a new location tracking line or update an existing location record.

For example, the system indicates Yard as the current location of a truck. You have physically transferred the truck to job site B, but due to paperwork delays you have not entered the transfer date into the system. Meanwhile, you need to relocate the truck from job site B to job site C.

If you enter the new location information for the truck indicating the relocation from job site B to job site C, the system creates a history location for job site B and a current location for job site C. The history location for job site B indicates a duration of zero because you have not indicated when the truck was relocated from the Yard to job site B.

When you enter the relocation information regarding the transfer from the Yard to job site B, the system revises the location dates for Yard and job site B. The system also updates the duration that the equipment was actually at job site B.

Processing Options for Location Transfer (P12115)

Display

Enter a '1' to suppress the display of the meter reading fields. Leave blank to display them.

1. Display Meters _____

Process

Enter a '1' to NOT update the following child fields when transferring the parent. Leave blank to update the child's field with the parent's field when transferring the parent..

1. Update child's Rate Code _____

2. Update child's Billing Amount _____

Defaults

Enter the Default values for the following fields.

1. Location Code _____

2. Location _____

Revising Location Information

You can use Location Revisions to review and revise location tracking information for a piece of equipment. You can review current, planned, and historical location information for individual pieces of equipment, or review all information for a particular location. You can enter specific dates to limit the information that the system displays. You can also delete current and planned location information.

After you review location information for a piece of equipment, you can make revisions to individual equipment locations. For example, you can revise the status of the equipment, meter reading information, or transfer number. You can also enter text messages for specific locations. For example, you might want to note specific instructions or explanations for a location.

You can also delete individual location information for current and planned locations. When you delete current location information, the system causes the most recent historical location to revert to the current location. When you specify that the system delete current location information for a piece of equipment that has more than one current location, it deletes all of the current locations with the same date and makes the prior equipment locations current.

Before You Begin

- Verify that the equipment master includes a beginning location and start date. See *Entering Location Information* for information about using Location Transfer to update beginning location and start date fields on the equipment master.

► To revise location information

From the Equipment Location Tracking menu (G1314), choose Work With Locations.

1. On Work With Locations, to specify the location information that you want to revise, complete any combination of the following fields in the header area of the form and click Find:
 - Asset Number
 - Location
 - Transfer Number
 - From Date
 - Thru Date
 - Location Code
2. Choose the record that you want to revise and click Select.

The screenshot shows a software window titled "Work With Locations - [Location Revisions]". The window has a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", and "Abt". There are also icons for "Links", "Account", "OLE...", and "Internet". The main area of the window has three tabs: "Location Information", "Transfer Information", and "Billing Information". The "Location Information" tab is selected and contains the following fields:

- Asset Number: 1002
- Location: SHOP
- Location Code: C
- Start Effective Date: 2/9/99
- Beginning Time: 00:00:00
- Ending Date: (empty)
- Ending Time: 00:00:00

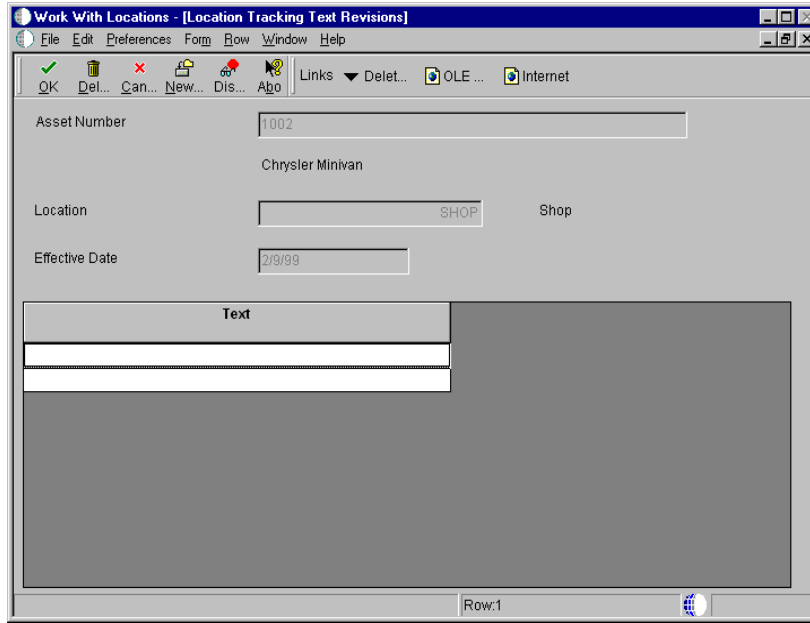
The text "Chrysler Minivan" is displayed next to the Asset Number field, and "Current Location" is displayed next to the Location Code field.

3. On Location Revisions, complete any of the following fields:
 - Ending Date
 - Ending Time

You can change only the ending dates and ending times for current and planned locations.

4. Click the Transfer Information tab and complete any of the following fields:

- Transfer Number
 - Equipment Status
 - Remark
 - Curr Meter Reading
 - Orig Meter Reading
 - Column
 - Row
5. Click the Billing Information tab.
 6. Complete any of the following optional fields under the Billing Information heading, and then click OK.
 - Transfer Action Code
 - Equipment Rate Code
 - Business Unit
 - Object Account
 - Subsidiary
 - Subledger
 - Subledger Type
 - Billing Amount
 7. On Work With Locations, choose Text from the Row menu to enter location tracking text for the selected piece of equipment.



8. On Location Tracking Text Revisions, type a message in the Text area and click OK.
9. To return to Work With Locations, click Cancel.
10. On Work With Locations, click Close.

Field	Explanation
Asset Number	<p>An identification code for an asset that you can enter in one of the following formats:</p> <ol style="list-style-type: none"> 1 Asset number (a computer-assigned, 8-digit, numeric control number) 2 Unit number (a 12-character alphanumeric field) 3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p>

Field	Explanation
Location Code	<p>A code that indicates the type of location record. You can enter the following valid values:</p> <ul style="list-style-type: none"> C Current. Displays only the current location for an asset. H Historical. Displays all previous locations for an asset. P Planned or scheduled. Displays only the planned location dates for an asset. You enter planned locations for an asset in the Equipment/Plant Management system. * Displays all locations (current, planned, and historical) that meet your search criteria. <p>The default value for this field is C.</p> <p>NOTE: You cannot change historical (type H) location records. The system automatically updates location records to type H when you change the location and start date of an asset.</p>
Ending Date	The date that the asset was removed or returned from a particular location.
Ending Time	The amount of time between the date and time that you enter the call and the date and time that you assign the call.
Transfer Number	A number that identifies a transfer record for an asset or group of assets. You can assign this number to new transfer records. If you leave this field blank when you perform a location transfer, the system assigns the transfer record a number from Next Numbers.
Equipment Status	A user defined code (12/ES) that identifies the equipment or disposal status of an asset, such as available, down, or disposed.
Curr Meter Reading	The current meter reading of the piece of equipment. This field is informational only.
Orig Meter Reading	The original meter reading when the piece of equipment started at the job. This field is informational only.
Column	A code that identifies a location in a warehouse. This code is used in conjunction with a bin and lot identifier, to indicate a specific, tangible storage area within a warehouse or yard.
Row	A specific storage location within a warehouse or store. The system uses the bin with an aisle location to identify a storage area whose width, depth, and height can be readily measured.

Field	Explanation
Transfer Action Code	<p>For Equipment Location Billing clients only. This code indicates whether a piece of equipment was rented or sold to the job to which it was transferred, or sold to the job and subsequently bought back. When you rent equipment to a job, the Location Billings program bills the job continuously, using the rental rates that you set up the Rental Rates form (P1301) to determine the amount to bill. When you sell equipment to a job, the Location Billings program bills the job one time, using the equipment's replacement value as the amount to bill. When you sell equipment to a job and subsequently buy back the equipment, the system bills the job for the difference between the equipment's replacement cost and the buyback percentage of the replacement cost. You define the buyback percentage in Rental Rules.</p> <p>Valid codes are:</p> <ul style="list-style-type: none"> 1 Rented to the job 2 Sold to the job 3 Sold to the job and subsequently bought back 4 Future Use <p>Note: This field is used only in Equipment Management. It is not used in Fixed Assets.</p>
Equipment Rate Code	<p>A user defined code (00/RC) that indicates a billing rate, such as DY for daily, MO for monthly, and WK for weekly. You can set up multiple billing rates for a piece of equipment.</p> <p>If you leave this field blank, the system searches for a valid billing rate in the following sequence:</p> <ul style="list-style-type: none"> 1. Account Ledger Master (F0901) - This table contains the most detailed rate information. You can assign multiple rates for a job. For example, you can set up separate rates for different equipment working conditions. 2. Job or Business Unit Master (F0006) - This table contains less detailed rate information than the Account Ledger Master. You can only set up a single rate for a job based on this table. 3. Rental Rules (F1302) - This table contains the least detailed rate code information. The system searches this table according to the criteria you establish when setting up the table.

Field	Explanation
Business Unit	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>
Object Account	<p>The portion of a general ledger account that refers to the division of the Cost Code (for example, labor, materials, and equipment) into subcategories. For example, dividing labor into regular time, premium time, and burden.</p> <p>Note: If you are using a flexible chart of accounts and the object account is set to 6 digits, J.D. Edwards recommends that you use all 6 digits. For example, entering 000456 is not the same as entering 456, because if you enter 456, the system enters three blank spaces to fill a 6-digit object.</p>
Subsidiary	<p>A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.</p>
Subledger	<p>A code that identifies a detailed auxiliary account within a general ledger account. A subledger can be an equipment item number or an address book number. If you enter a subledger, you must also specify the subledger type.</p>
Subledger Type	<p>A user defined code (00/ST) that is used with the Subledger field to identify the subledger type and how the system performs subledger editing. On the User Defined Codes form, the second line of the description controls how the system performs editing. This is either hard-coded or user defined. For example:</p> <ul style="list-style-type: none">A Alphanumeric field, do not editN Numeric field, right justify and zero fillC Alphanumeric field, right justify and blank fill

Processing Options for Work With Locations (P12215)

Update

Enter a '1' to allow Updates to Planned Locations Only. Enter a '2' to allow Updates to Current Locations Only.

Leave blank to allow Updates to all Locations.

1. Update _____

Maintenance Costing

Maintenance Costing

Because the Equipment/Plant Management system is closely integrated with the General Accounting system, you can enter and track costs for your equipment, review the costs, and print a variety of equipment cost reports. The system identifies costs that are specific to equipment based on the fixed asset range (FX range) of accounts in the automatic accounting instructions (AAIs). The FX range of accounts include the following:

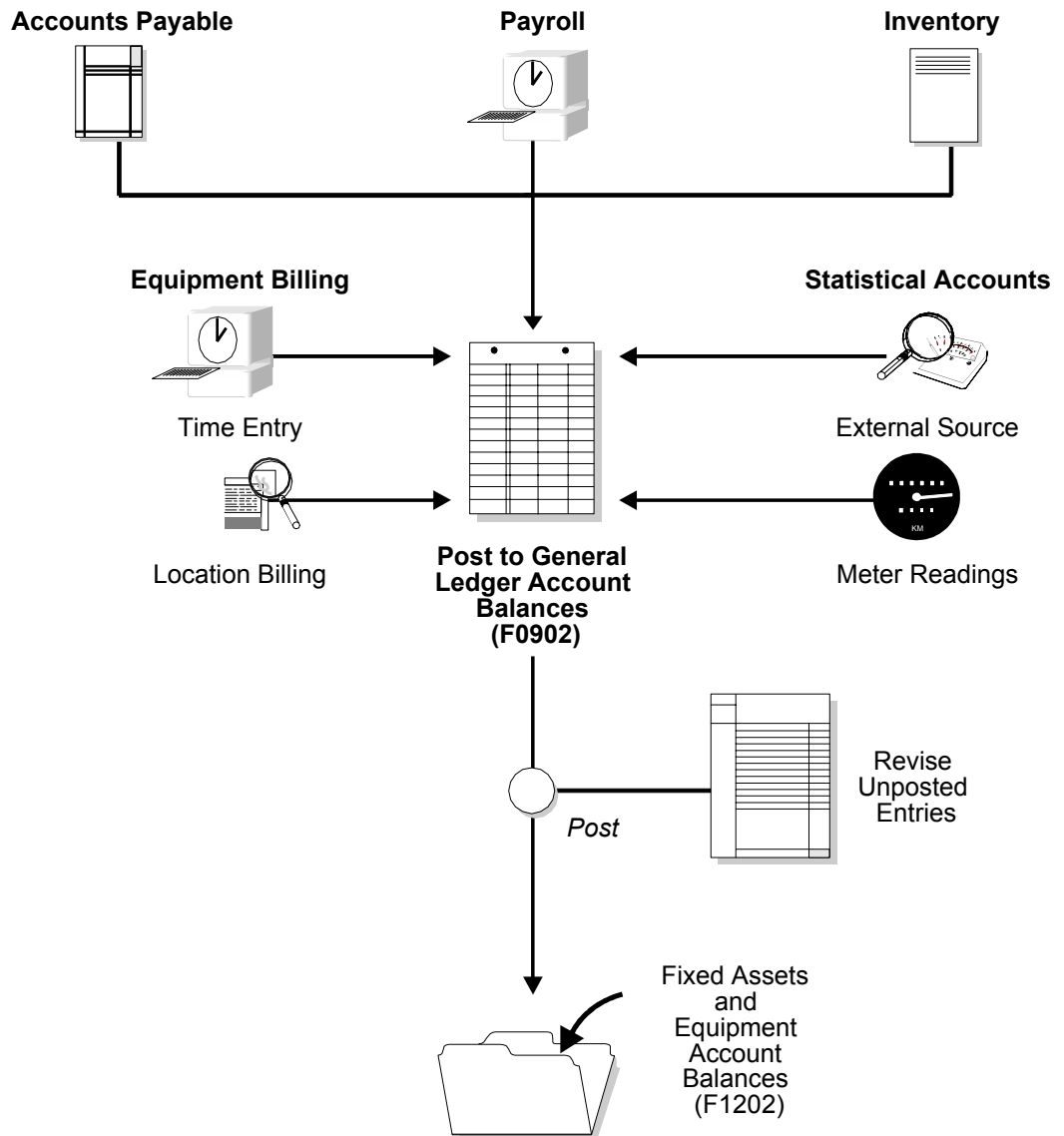
Maintenance expense accounts	Maintenance accounts track costs associated with the upkeep of equipment, such as labor and parts.
Operating expense accounts	Operating expense accounts track costs associated with operating the equipment, such as fuel, licensing, and certification.
Equipment revenue accounts	Equipment revenue accounts track the revenue generated by a piece of equipment.
Statistical accounts	Statistical accounts track units, such as hours, miles, and gallons, that are associated with the use a piece of equipment. Although statistical accounts are within the FX range of accounts, they are not used for maintenance costing.

Although typically most maintenance costs for equipment enter the system through maintenance work orders, you can enter equipment costs through any J.D. Edwards system that creates journal entries for business transactions in the Account Ledger table (F0911), such as:

- General Accounting
- Accounts Payable
- Payroll
- Inventory Management
- Procurement
- Work Order Management

Equipment-Plant Maintenance

The following graphic shows the types of journal entries that affect equipment costs, and how those entries are assigned to equipment:



After the system creates journal entries for the equipment costs that you enter, you post the entries to the general ledger, and then to equipment. When you post journal entries to the general ledger, the system updates the Account Balances table (F0902). When you post to equipment, the system updates the Asset Account Balances table (F1202). You can manually post journal entries to equipment, or you can set up your system to post the journal entries to equipment when you post the entries to the general ledger.

After you enter journal entries and post them to the proper accounts, you can review your costs using a variety of programs and reports.

Maintenance costing consists of the following tasks:

- Working with the general ledger
- Adding costs to work orders
- Reviewing maintenance costs

Working with the General Ledger

You can revise equipment journal entries that have been posted to the general ledger but have not yet been posted to equipment. For example, you might want to review journal entries to ensure that all of the necessary equipment information, such as equipment numbers, is included. You can also work with G/L journal entries to prevent certain transactions that are within the FX range of accounts in the AAIs from posting to equipment. For example, if you have transactions that you record to make corrections to the general ledger, you might want to prevent them from posting to equipment. In addition, you can print a report that shows transactions that have not been posted to equipment. When you are satisfied with the integrity of the journal entries, you can post them to equipment.

Working with the general ledger consists of the following tasks:

- Revising unposted journal entries
- Splitting unposted journal entries
- Printing the Journal Entries report
- Posting G/L journal entries to equipment

Revising Unposted Journal Entries

Use Revise Unposted Entries to make changes to journal entries before they are posted to equipment. For example, you can do the following:

- Revise or add an equipment number to a journal entry
- Revise or add a description to further explain a journal entry
- Create an equipment master for a journal entry that includes an asset cost account for a piece of equipment that isn't yet in the system
- Revise the hold or pass code on a journal entry to prevent it from posting to equipment

Note: To ensure the integrity of your transaction records and audit trails, the system prevents changes to account information that has already been posted to the general ledger, such as the following:

- G/L account number
- Amount
- G/L date

► To revise unposted journal entries

From the Posting G/L to Fixed Assets menu (G1212), choose Revise Unposted Entries.

1. On Work With Unposted Entries, to locate a journal entry, complete any of the fields in the header area of the form and click Find.
2. To add or revise the description for a transaction, complete the following field in the detail area of the form:
 - Name - Alpha Explanation
3. To change the hold code for a transaction, complete the following field in the detail portion of the form:
 - H C
4. To prevent a transaction from posting, turn on the Fixed Asset Post/Passed Code (PC) field in the header area of the form:
 - P C
5. To review existing master information for a piece of equipment or to interactively create an equipment master for a particular transaction, choose the record for the transaction and choose Asset Master from the Row menu.

The system displays Work With Assets, from which you can search for or create equipment masters.

Field	Explanation
H C	<p>The Alternate G/L Posting Codes are used for transactional posting other than the normal G/L posting.</p> <p>This hold code is used in conjunction with the F/A system. Only those records with a “batch rear end” value of blank, G/L post code of P and hold code value of blank will be selected in the Post Unposted F/A Entries program.</p> <p>If there are records that have been posted to G/L, but should not be posted to F/A, you can update this hold code to any character other than X or *. The X code is reserved for F/A Time Entry. The * code is reserved for selection of all hold codes in Revise Unposted Entries (P12102).</p> <p>.....<i>Form-specific information</i>.....</p> <p>This field appears twice on Work With Unposted Entries.</p> <p>Hold Code. Enter a value in this field to locate specific transactions.</p> <p>HC. The value in this field is informational only. Use Revise Unposted Entries to revise the hold code for individual records.</p>

Field	Explanation
P C	<p>The valid post codes for fixed asset transactions are as follows:</p> <p>Blank Unposted. Transaction has not yet been posted to the Item Balances table (F1202).</p> <p>P Pass. Transaction does not fall within the FX range of accounts as set up in automatic accounting instructions (AAIs) and will not post to fixed assets. You can manually update this field to P through the Revise Unposted Entries program (P12102). Use P in this field when the account number is within the fixed asset range of accounts, but you do not want the transaction to post to fixed assets. You can change this field from blank to P or from P to blank.</p> <p>* Posted. Transaction has been posted to the Item Balances table. You cannot change this value.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This field appears twice on the Work With Unposted Entries form.</p> <p>FA Pass Code. Enter a value in this field to locate specific transactions. Transactions with an asterisk (*) in this field have already been posted to fixed assets. These transactions do not appear on Revise Unposted Entries. To view all fixed asset transactions, regardless of post code, enter @ in this field.</p> <p>PC. Use this field to manually update a transaction to a P status.</p>

See Also

- *Creating an Equipment Master*

Processing Options for Revise Unposted Entries (P12102)

Update

1. Enter '1' to allow the posting of cost to a different account than defined in the Asset Master. Leave blank (default) to prevent posting of cost to a different account defined in the Asset Master.

Allow Different Cost

Versions

1. Enter the version of Order Inquiry

Details (P4310) to call when the form exit is selected. Leave blank (default) to call version ZJDE0006.

Version _____

Splitting Unposted Journal Entries

You can split a journal entry into two or more entries before you post them to equipment. You might split unposted journal entries when an accounts payable invoice for multiple pieces of equipment is distributed to one account, but you need to capitalize each piece separately.

For example, an invoice for computers can be distributed in the full amount to the G/L asset account for computers. However, you might want to capitalize each computer separately in equipment. You can split the original journal entry for computers into several pieces of equipment, such as central processing unit, printer, monitor, and keyboard.

Note: When you split a journal entry into two or more entries, the new totals must equal the total amount of the original journal entry.

► To split unposted entries

From the Posting G/L to Fixed Assets menu (G1212), choose Revise Unposted Entries.

1. On Work With Unposted Entries, to locate a specific journal entry, complete any of the fields in the header portion of the form and click Find.
2. Choose the record for the journal entry and then choose Split from the Row menu.

Asset Number	Amount	Units	Explanation-Remark
	4,000.00		

3. On Split Journal Entry, complete the following fields:
 - Asset Number
 - Amount
 - Name - Remark Explanation
4. Complete the following optional field and click OK:
 - Units

See Also

- *Revising Unposted Journal Entries* for the processing options for this program

Printing the Journal Entries Report

From the Posting G/L Entries to Fixed Assets menu, (G1212), choose Unposted Fixed Asset Transactions.

You can print the Unposted Fixed Asset Transactions report to view a list of all transactions that have been posted to the general ledger but not to equipment. The FX range of accounts in the AAIs identifies the beginning and ending range of asset accounts that can post to equipment. The Unposted Fixed Asset Transactions report is a printed version of Revise Unposted Entries.

If you post a journal entry that does not include an equipment number, the *No Item Master Record* message appears on the report. You should create an equipment master for the equipment and attach the new equipment number to the journal entry.

See Also

- *R12301, Unposted Fixed Asset Transactions* in the *Reports Guide* for a report sample

Posting G/L Journal Entries to Equipment

After you verify the information in the unposted equipment journal entries, you must post the entries to the Asset Account Balances table (F1202). All journal entries that are within the FX range of accounts in the AAIs must be posted to the Asset Account Balances table to update the Equipment/Plant Management system with current transaction records.

Posting G/L journal entries to equipment consists of the following tasks:

- Posting a batch of journal entries
- Verifying the post process

Posting a Batch of Journal Entries

From the Posting G/L to Fixed Assets menu (G1212), choose Post G/L Entries to Fixed Assets.

Before G/L journal entries can be posted to equipment, the system verifies that each entry includes the following:

- A G/L post code of P (posted to the Account Ledger table)
- An account that is within the FX range of accounts that you set up in the AAIs
- A fixed asset post code of blank
- A valid equipment number or an account that is within the cost account range (FA range) of accounts in the AAIs
- A hold code of blank

When you run the Post G/L Entries to Assets program, the system posts all equipment journal entries to the Asset Account Balances table (F1202) and marks each transaction as posted.

Verifying the Post Process

After the post process is complete, the system generates a Post Unposted Fixed Asset Entries report. You can review this report to verify the results of the post. The report indicates all journal entries that were not posted and the reason why. It also notes any automatic processes that might have occurred during the post.

Three messages can appear in the Message Area column on this report:

Asset Master Record Created

This message indicates that the system created an asset master and its corresponding balance record for a posted transaction. If you do not create these records for a piece of equipment before you run the post program, the system automatically creates them under the following circumstances:

- The equipment number is blank in the Account Ledger table (F0911).
- The object account is within the FA range of accounts in the AAI's.
- You use the Post G/L Entries to Assets program to run the post.

The system creates asset masters and balance records based on the values that you enter when you set up equipment.

Asset Number Assigned

If you did not assign an equipment number to an unposted journal entry, this message indicates that the system has automatically assigned an equipment number based on the FA range of accounts in the AAI's.

Unable to Post - The record is not in the Asset Master Table

This message indicates that you did not assign an equipment number to an unposted journal entry and the system was unable to assign a number automatically.

You can also verify the results of the post to equipment online. To review posted equipment transactions and the effects of the post on other account information, access the following forms:

Equipment Search	Review new equipment and corresponding equipment masters that are generated by the post. This is particularly useful if you split a general ledger transaction before running the Post G/L Entries to Assets program.
Cost Summary	Review how the new transactions affect cost accounts and balances.

See Also

- *Posting G/L Journal Entries to Fixed Assets* in the *Fixed Assets Guide* for the processing options for this program

Reviewing Maintenance Costs

To help manage maintenance-related costs within your organization, you can review inception-to-date, year-to-date, and month-to-date account balances for individual pieces of equipment. You can also do the following:

- Review one subledger or all subledgers for a specific piece of equipment
- Review detailed or summarized account balance information
- Display equipment account balances in currency amounts or in units and per unit costs
- Review maintenance costs by shop or job

Reviewing maintenance costs consists of the following tasks:

- Reviewing equipment costs
- Reviewing shop costs by cost account
- Reviewing shop costs by repair code
- Reviewing shop costs using Job Status Inquiry
- Reviewing work order costs

You can review maintenance costs either by cost account or repair code. When you review by cost account, the system displays all accounts in object account order. When you review by repair code, the system displays accounts in subsidiary account order, beginning with the account that you indicate.

Cost account

A cost account is an object account that typically represents a type of cost. Examples of cost accounts include the following:

- Labor
- Parts
- Materials

Review maintenance costs by cost account when you need an abbreviated income statement and balance sheet for a specific piece of equipment or for a shop.

Repair code

A repair code is a subsidiary account that represents a subdivision of a cost account. You can use repair codes to keep detailed records of the accounting activity for a particular cost account. Examples of repair codes include the following:

- Preventive maintenance
- Emergency repairs
- Electrical repairs
- Mechanical repairs

Review maintenance costs by repair code when you need a managerial perspective of costs related to a specific type of repair.

See Also

- *Posting G/L Journal Entries to Equipment* for more information about how costs and expenses are assigned to equipment

Reviewing Equipment Costs

To help manage costs related to equipment maintenance within your organization, you can review inception-to-date, year-to-date, and month-to-date account balances for individual pieces of equipment. You can also do the following:

- Review one subledger or all subledgers for a specific piece of equipment
- Review detailed or summarized account balance information

You can view equipment costs either by cost account or repair code. When you review costs and expenses by cost account, the system displays all accounts in object account order. By reviewing costs by cost account, you get a financial perspective of business costs. For example, you can review the following:

- Acquisition costs
- Depreciation amounts
- Maintenance expenses
- Operating expenses

When you review costs by repair code, the system displays accounts in subsidiary account order, beginning with the account that you indicate. For example, you

might have a cost account for labor. You can set up repair codes to track labor costs for different types of repairs, such as preventive maintenance repairs, emergency repairs, electrical repairs, and mechanical repairs, within the labor cost account.

View costs by repair code to access the following:

- All repair costs for a particular piece of equipment
- Subsidiary accounts to review costs associated with a certain type of repair
- Object accounts, such as labor, parts, or materials specific to a particular repair code

You can use processing options to assign default values for the following:

- Ledger type
- Detailed or summarized information
- Amounts or statistical units

► To review equipment costs

From the Cost Inquiries and Reports menu (G1312), choose Cost Summary by Cost Account.

1. On Work With Cost Summary, choose a tab to review costs by cost account or repair code.
2. Complete one of the following fields:
 - To review account information by specific account, use this field:
 - Skip to Account or Code
 - To review costs for a specific piece of equipment, use this field:
 - Asset Number
3. Complete the following optional fields.
 - From Date/Period
 - Thru Date/Period
 - Ledger Type

- Click the Additional Selection Tab.

The screenshot shows a software window titled "Cost Summary by Cost Account - [Work with Cost Summary]". The "Additional Selections" tab is active, displaying several input fields: "Units/Unit Cost" (with a dropdown menu), "Detail/Summary" (with a dropdown menu set to "D"), and "Subledger" (with a dropdown menu). To the right, there are radio buttons for "Total by Code (Subsidiary)" and "Total by Account (Object)", with the latter being selected. Below these fields is a table with the following data:

Account	Code	Account Description	Inception To Date	Year To Date	Period To Date	Business Unit
1355	02200	Equipment	5,000.00	5,000.00	5,000.00	5
1355	02600	Equipment	6,125.00	6,125.00	6,125.00	5
2030		Heavy Equipment	46,108.00			
		Net Book Value	57,233.00	11,125.00	11,125.00	
8422		Operating Portion	11,125.00	11,125.00	11,125.00	Y
		Revenue Earned	11,125.00	11,125.00	11,125.00	
		Total	46,108.00			

- Complete the following optional fields:

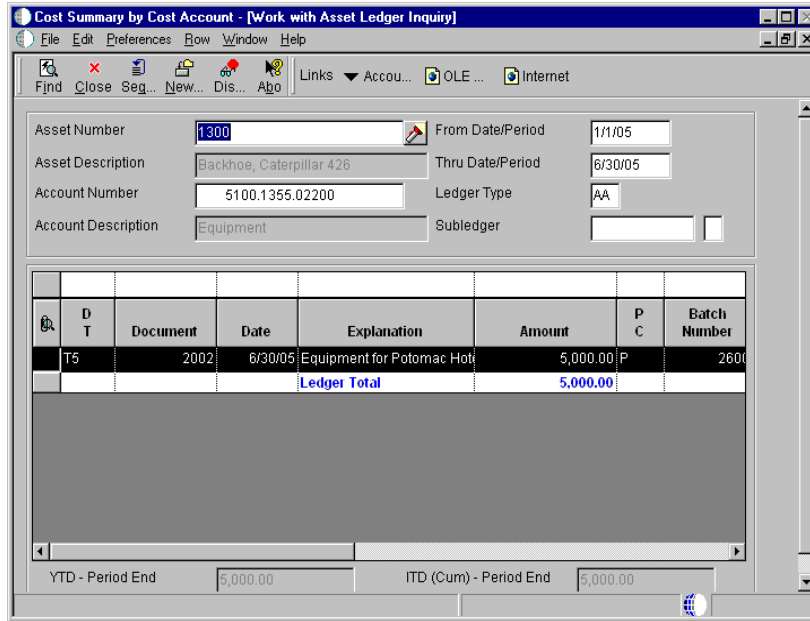
- Units/Unit Cost
- Detail/Summary
- Subledger
- Subledger Type

You can use processing options to populate this form with certain default values. Any values that you enter on this form will override the default values that you assign with processing options.

- To specify how totals are displayed, click one of the following options and click Find:

- Total by Code (Subsidiary)
- Total by Account (Object)

- To review the posted transactions for an individual account balance, choose the record and then choose Asset Ledger Inquiry from the Row menu.



Field	Explanation
Ledger Type	A user defined code (09/LT) that specifies the type of ledger, such as AA (Actual Amounts), BA (Budget Amount), or AU (Actual Units). You can set up multiple, concurrent accounting ledgers within the general ledger to establish an audit trail for all transactions.
Units/Unit Cost	<p>A code that determines whether the system displays amounts or statistical units. You can use statistical units to track equipment information for a piece of equipment. Valid values are:</p> <ul style="list-style-type: none"> N Display currency amounts. This is the default value. Y Display statistical units such as hours. The statistical units you define for this code are stored in the AT00 automatic accounting instruction. A Display statistical units such as those used to indicate fuel consumption. The statistical units you define for this code are stored in the FMA automatic accounting instruction. B Display statistical units such as miles. The statistical units you define for this code are stored in the FMB automatic accounting instruction. Equipment can accumulate usage amounts based on hours, miles, fuel, and so on. When you display equipment costs by units or unit cost, the first account listed shows the number of units that have accumulated for that piece of equipment. The remaining account balances reflect actual amounts divided by the total units or a per unit cost for each account.

Field	Explanation
Detail/Summary	<p>A code that you enter with one of the following values:</p> <ul style="list-style-type: none">D No summarizationO Object account level of summarization when sequencing by objectR Subsidiary account level of summarization when sequencing by subsidiaryS Complete summarization by Automatic Accounting Instruction object account <p>When sequencing by object account, D and O are valid values. S is valid only for Fixed Assets. When sequencing by subsidiary account, D is a valid value. R is valid only for Equipment Management.</p> <p>Note: If you wish to see the transaction ledger for a particular account, you cannot summarize. If you are displaying miles or units, these amounts are always summarized.</p>

See Also

- *Reviewing Asset Costs* in the *Fixed Assets Guide* for information on the processing options for this program

Reviewing Shop Costs by Cost Account

Each cost account (object account) represents a type of cost. When you review costs by cost accounts, you get a financial perspective of business costs. For example, you can set up individual cost accounts for labor, parts, and materials. When you review shop costs by cost account, you see the total of each type of cost for a shop or business unit.

You can display all shop costs, and you can review cost account balances for costs, such as labor, parts, and material, for an entire shop. You can compare actual amounts with budget amounts or amounts for any other two ledger types. Additionally, you can review account ledger information for individual accounts.

► To review shop costs by cost account

From the Cost Inquiries and Reports menu (G1312), choose By Cost Account.

1. On Trial Balance/Ledger Comparison, complete the following field:
 - Business Unit
2. To review account balance information for the current period, turn on the following option:
 - Period/Cum

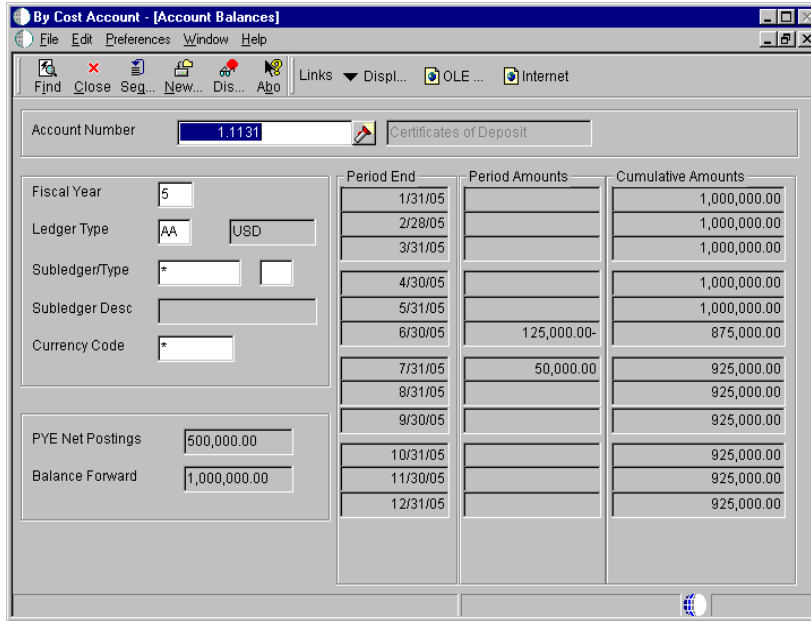
If you turn off this option, the amounts that appear are year to date.

3. To specify the ledgers that you want to compare, complete the following fields:
 - Ledger Type 1
 - Ledger Type 2
4. Complete the following optional field for each ledger type that you specified in the previous step and click Find:
 - Date as of

Account amounts appear for the ledger types that you specified, as well as the variance between the amounts.

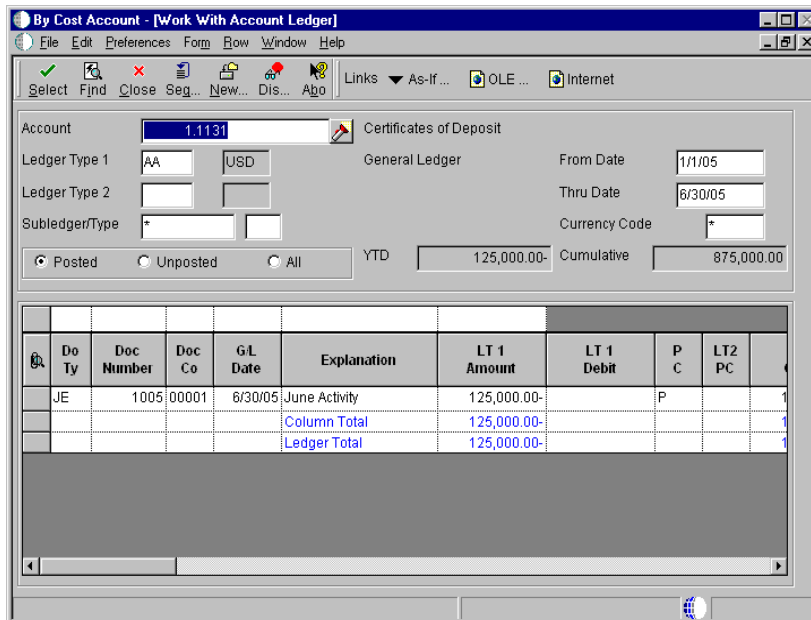
5. To limit the information that appears, complete the following field:
 - LOD
6. To review period and cumulative amounts for a particular account, choose its record and then choose Balances from the Row menu.

The Account Balances form appears.



7. Click Close to return to Trial Balance/Ledger Comparison.
8. On Trial Balance/Ledger Comparison, to review account ledger information for a specific account, choose its record and then choose Ledgers from the Row menu.

Work With Account Ledger appears. From this form, you can review a variety of information, including individual journal entries.



Field	Explanation
LOD	<p>A number that summarizes and classifies accounts in the general ledger. You can have up to 9 levels of detail. Level 9 is the most detailed and Level 1 is the least detailed. Levels 1 and 2 are reserved for company and business unit totals. When you are using the Job Cost system, Levels 8 and 9 are reserved for job cost posting accounts. Example:</p> <ul style="list-style-type: none"> 3 Assets, Liabilities, Revenues, Expenses 4 Current Assets, Fixed Assets, Current Liabilities, and so on 5 Cash, Accounts Receivable, Inventories, Salaries, and so on 6 Petty Cash, Cash in Banks, Trade Accounts Receivable, and so on 7 Petty Cash - Dallas, Petty Cash - Houston, and so on 8 More Detail 9 More Detail <p>Do not skip levels of detail when you assign a level of detail to an account. Nonsequential levels of detail cause rollup errors in financial reports that are run at a skipped level.</p>

Processing Options for Trial Balance / Ledger Comparison (P09210)

Defaults

Enter default ledger types. If ledger type 1 is left blank, AA will be used. If ledger type 2 is left blank, BA will be used. Ledger Type 2 is only valid for format 2.

Ledger Type 1 _____
 Ledger Type 2 _____

When exiting to another form, select the ledger to load in the form that is being exited to. To load ledger type 1 enter a 1(default), to load ledger type 2 enter a 2.

Exit to Ledger 1 or 2 _____

Enter the default calculation method for the variance column: 0 = Add, 1 = Subtract (default), 2 = Divide, 3 = Multiply.

Calculation Method _____

Zero Amounts

Enter a 1 to suppress the display of posting accounts that have a zero balance.

Supress Zero Amounts _____

Add Ledgers

Enter additional ledgers to be added to the amounts that will display for ledger one and ledger two.

Additonal Ledger One _____

Additonal Ledger Two _____

Reviewing Shop Costs by Repair Code

Review shop costs by repair code when you need to review costs for a particular repair code. Repair codes (subsidiaries) represent a subdivision of cost accounts. You can use repair codes to keep detailed records of the accounting activity for a cost account. For example, for a particular cost account, such as labor, you might need to compare electrical repair costs to costs associated with mechanical repairs. Additionally, you can review account ledger information for individual accounts.

You use processing options to specify the type of information that you want to appear. For example, you can review the following types of information:

- Actual amounts and unit quantities
- Budget amounts and unit quantities

► To review shop costs by repair code

From the Cost Inquiries and Reports menu (G1312), choose By Repair Code.

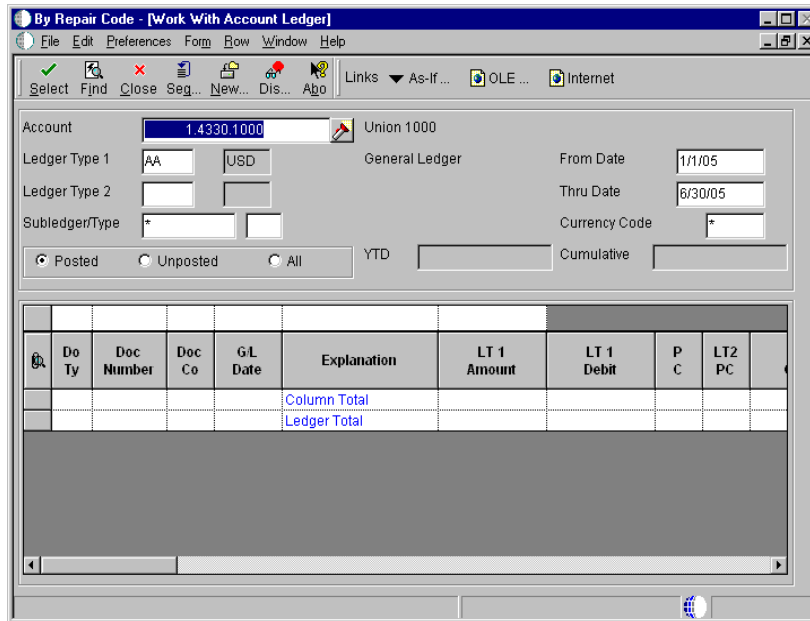
1. On Work With Job Status Inquiry - Basic, complete the following field:
 - Job Number
2. To specify the time period for which you want to review costs, on the Additional Selections tab, turn on one of the following options under the To Date heading:
 - Inception
 - Cumulative
 - Period

3. To further limit the information that appears, complete any of the following optional fields and click Find:

- Period/Date
- Level of Detail
- Subledger

4. To review account ledger information for a specific account, choose its record and then choose Account Ledger from the Row menu.

Work With Account Ledger appears. From this form, you can review a variety of information, including individual journal entries.



Field	Explanation
Job Number	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p> <p>.....<i>Form-specific information</i>.....</p> <p>You must use the project number in the Job Number field when reviewing project information.</p>
Inception	<p>Specifies the type of totals that are displayed on the form. Valid values are:</p> <ul style="list-style-type: none"> C Cumulative (year-to-date). I Inception-to-date (job-to-date). With this code, projected costs include all budgets, commitments, and actual costs. P Period (financial period-to-date).
Period/Date	<p>This entry field designates either a period within the current fiscal year or a specific date.</p> <p>To designate a period of the current fiscal year for the selected company, enter a number from 1 to 14. For example, enter 10 for period 10 of the current year.</p> <p>To designate a date, use your company's fiscal date pattern. For example, enter 01/01/99 for the fiscal date of January 1, 1999.</p>

Field	Explanation
Level of Detail	<p>A number that summarizes and classifies accounts in the general ledger. You can have up to 9 levels of detail. Level 9 is the most detailed and Level 1 is the least detailed. Levels 1 and 2 are reserved for company and business unit totals. When you are using the Job Cost system, Levels 8 and 9 are reserved for job cost posting accounts. Example:</p> <ul style="list-style-type: none"> 3 Assets, Liabilities, Revenues, Expenses 4 Current Assets, Fixed Assets, Current Liabilities, and so on 5 Cash, Accounts Receivable, Inventories, Salaries, and so on 6 Petty Cash, Cash in Banks, Trade Accounts Receivable, and so on 7 Petty Cash - Dallas, Petty Cash - Houston, and so on 8 More Detail 9 More Detail <p>Do not skip levels of detail when you assign a level of detail to an account. Nonsequential levels of detail cause rollup errors in financial reports that are run at a skipped level.</p>
Subledger	<p>A code that identifies a detailed auxiliary account within a general ledger account. A subledger can be an equipment item number or an address book number. If you enter a subledger, you must also specify the subledger type.</p>

Processing Options for Job Status Inquiry-Basic (P512100)

Display 1

1. Enter the default Cost Code Range

From Cost Code _____
 Thru Cost Code _____

2. Enter the default Cost Type Range

From Cost Type _____
 Thru Cost Type _____

3. Enter a '1' to restrict entry to the account ranges specified above. Leave blank to allow changes in account ranges.

Job Cost Restrict Ranges _____

Display 2

1. AA Ledger

Enter '1' to display Actual Amount _____

2. AU Ledger

Equipment-Plant Maintenance

Enter '1' to display Actual Unit _____

3. JA Ledger-BORG

Enter '1' to display Original
Budget Amounts _____

4. JA Ledger

Enter '1' to display Revised
Budget Amounts _____

5. JU Ledger-BORG

Enter '1' to display Original
Budget Units _____

6. JU Ledger

Enter '1' to display Revised
Budget Units _____

Display 3

1. PA + AA Ledgers

Enter '1' to display Total
Commitment Amounts _____

2. PA Ledger

Enter '1' to display Open
Commitment Amounts _____

3. PU + AU Ledgers

Enter '1' to display Total
Commitment Units _____

4. PU Ledger

Enter '1' to display Open
Commitment Units _____

Display 4

1. HA Ledger

Enter '1' to display Projected
Final Amounts _____

2. HU Ledger

Enter '1' to display Projected
Final Units _____

3. Revised Budget Amount Ledgers-BORG

Enter '1' to display Original
Budget Amounts _____

4. Revised Budget Amount Ledgers

Enter '1' to display Revised
Budget Amounts _____

5. Revised Budget Unit Ledgers-BORG

Enter '1' to display Original
Budget Units _____

6. Revised Budget Unit Ledgers

Enter '1' to display Revised
Budget Units _____

Display 5

1. F% Ledger or, if zero, AA/HA Ledgers

Enter '1' to display Percent
Complete _____

2. JA-AA Ledgers

Enter '1' to display Budget
Variance Amounts _____

3. JU-AU Ledgers

Enter '1' to display Budget
Variance Units _____

4. HA-JA Ledgers

Enter '1' to display Projected
Final Over/Under Amounts _____

5. HU-JU Ledgers

Enter '1' to display Projected
Final Over/Under Units _____

Version Exits

1. Enter the Progress Entry version for
the related exit. The default is
version 'ZJDE0001'.

Progress Entry Version _____

2. Enter the Budget Revisions version
for the related exit. The default is
version 'ZJDE0001'.

Budget Revisions Version _____

3. Enter the Job Progress Entry version
for the related exit. The default is
version 'ZJDE0001'.

Job Progress Entry Version _____

4. Enter the 'Select' Button exit of a
'1' for Progress Entry (default) or
a '2' for Account Ledger Inquiry.

Reviewing Shop Costs using Job Status Inquiry

The Job Cost system provides a more flexible online inquiry for reviewing all of the information related to your projects or jobs. You can review predefined job information or you can set up columns to view specific information and save your columnar format for future viewing.

For example, you can set up formats to review the following:

- Actual amounts and unit quantities
- Original and revised budget amounts and quantities
- Total and open commitments, amounts, and quantities
- Projected final amounts and quantities
- Projected over or under amounts and quantities
- Percentage of completion information for each account

Before You Begin

- Set Up Job Status Inquiry. See *Setting up Job Status Inquiry* in the *Job Cost Guide*.

► To review shop costs using Job Status Inquiry

From the Cost Inquiries and Reports menu (G1312), choose Job Status Inquiry.

1. On Job Status Inquiry, complete the following fields and click Find to review all accounts for the job.
 - Business Unit
 - Column Version
 - From Date/Period
 - Thru Date/Period
2. To specify the accounts that you want to review, click each of the tabs, complete the appropriate fields, and click Find.

See *Reviewing Job Information by User Defined Columns* in the *Job Cost Guide* for information about completing the fields that appear for each tab.

3. To review specific information about an account, choose the account, then choose one of the following options from the Row menu:
 - To review account ledger information, choose General Accounting, then Account Ledger.
 - To review account balance information, choose General Accounting, then Account Balances.
 - To review original budget information, choose Budgets, then Budget Original.
 - To review revised budget information, choose Budgets, then Budget Revisions.
 - To review attachments, choose Attachments.

Processing Options for Job Status Inquiry (P512000)

Display

1. Account Sequence _____
 Blank = Job, Cost Code, Cost Type
 A = Alternate Cost Code, Cost Type
 C = Cost Code, Cost Type, Job
 O = Job, Cost Type, Cost Code
 T = Cost Type, Cost Code, Job
 1 = Account Category Code 1
 2 = Account Category Code 2
 3 = Account Category Code 3
2. Default Cost Code Range _____
 From Cost Code _____
 Thru Cost Code _____
3. Default Cost Type Range _____
 From Cost Type _____
 Thru Cost Type _____
4. Restrict Account Range _____
 Blank = Allow account ranges outside the cost code and cost type ranges.
 1= Restrict account ranges to the cost code and cost type ranges.
5. Column Version _____
6. Restrict Column Version _____
 Blank = Restrict changes and additions to Column Versions.
 1 = Allow changes and additions to Column Versions.

7. Header Accounts _____
Blank = Display header accounts
1 = Do not display header accounts

Version Exits

1. Account Progress Entry _____
2. Job Progress Entry _____
3. Original Budget _____
4. Budget Revisions _____
5. Scheduling Workbench _____
6. Select Button Exit _____
Blank = Select exits to the
Account Progress Entry program.
1 = Select exits to the Job
Progress Entry program.
2 = Select exits to the Account
Ledger Inquiry program.

See Also

- *Setting Up Job Status Inquiry* for more information on defining inquiry columns in the *Job Cost Guide*

Reviewing Work Order Costs

You can review a wide variety of information related to work order costs. For example, you might need to review all work orders that are over budget, or review all current costs that are associated with a project to determine future budgeting requirements.

Reviewing work order costs consists of the following tasks:

- Reviewing work order transactions
- Reviewing work order costs from Backlog Management
- Reviewing work order costs by category code
- Reviewing costs by parent work order
- Reviewing estimated and actual work order amounts

Reviewing Work Order Transactions

Review work order transactions to track specific costs at the individual work order level. Use Cost by Work Order to review all posted and unposted general ledger transactions associated with a work order.

You can use date selections to limit the number of transactions that appear. You can also specify a ledger type to review actual amounts or budget amounts.

Before You Begin

- Verify that Summary Document Types (user defined code 48/DC) are set up. See *Understanding User Defined Codes*.

► To review work order transactions

From the Equipment Work Orders menu (G1316), choose Equipment Work Order Cost.

1. On Work With Cost by Work Order, complete the following field:
 - Order Number
2. To limit the G/L transactions that the system displays, complete the following fields and click Find:
 - Date/Period From
 - Date Thru - G/L
 - Ledger Type

Reviewing Work Order Costs from Backlog Management

You can use Backlog Management to review a summary of estimated and actual costs for a specific group of work orders. This is especially useful when you need a quick cost summary for work orders that match a variety of search criteria that you refine as needed. After you refine your search to the specific group of orders, you can review the following:

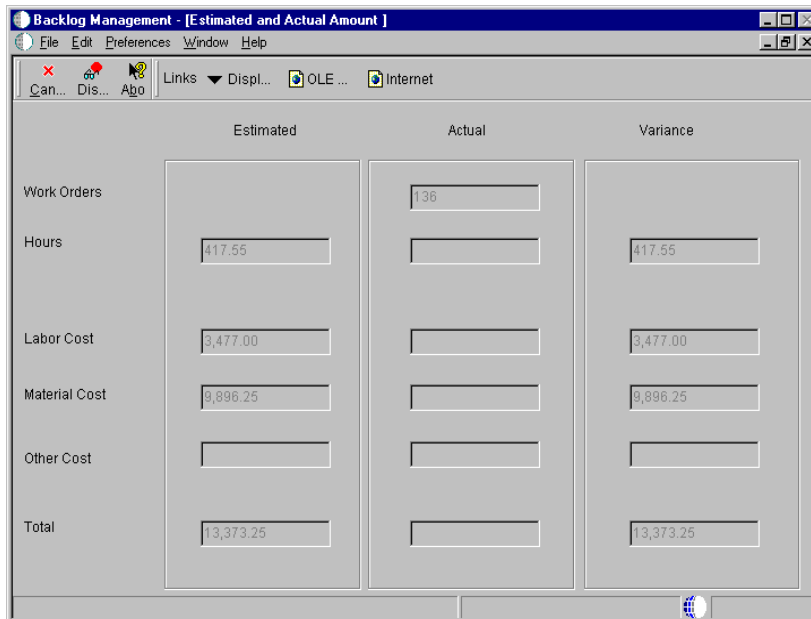
- The number of work orders that match your search criteria
- The estimated and actual hours for the work orders, as well as the variance

- The average amount of time needed to complete each work order
- The estimated and actual costs for labor, materials, and other costs, as well as the variance
- A total of the estimated costs, the actual costs, and the variance of the total costs

► To review work order costs from Backlog Management

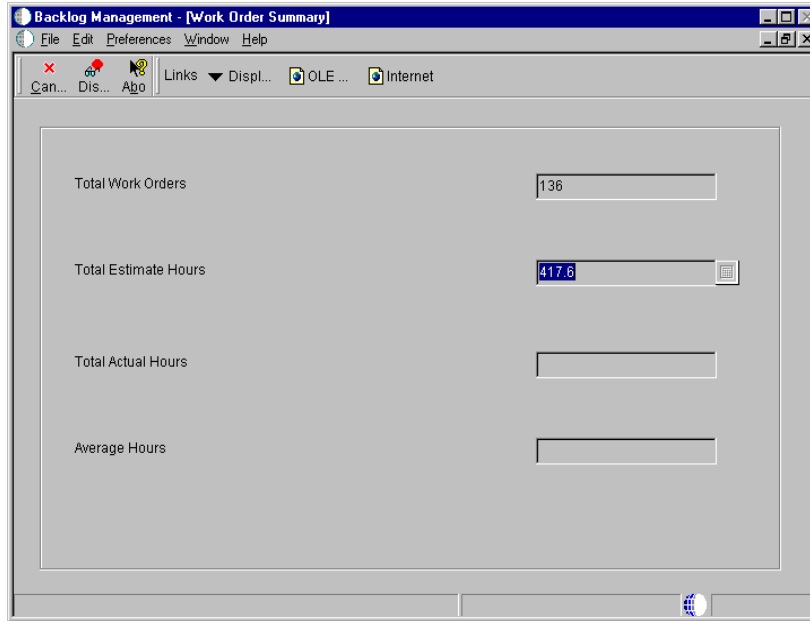
From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the steps to locate a work order or group of work orders.
See [Locating Work Orders using Backlog Management](#).
2. From the Form menu, choose Estimate to Actual.



	Estimated	Actual	Variance
Work Orders		136	
Hours	417.55		417.55
Labor Cost	3,477.00		3,477.00
Material Cost	9,896.25		9,896.25
Other Cost			
Total	13,373.25		13,373.25

3. On Estimated and Actual Amount, review the information and then click Cancel to return to Work With Work Orders.
4. On Work with Work Orders, choose WO Summary from the Form menu to review additional information about the work orders that you selected.



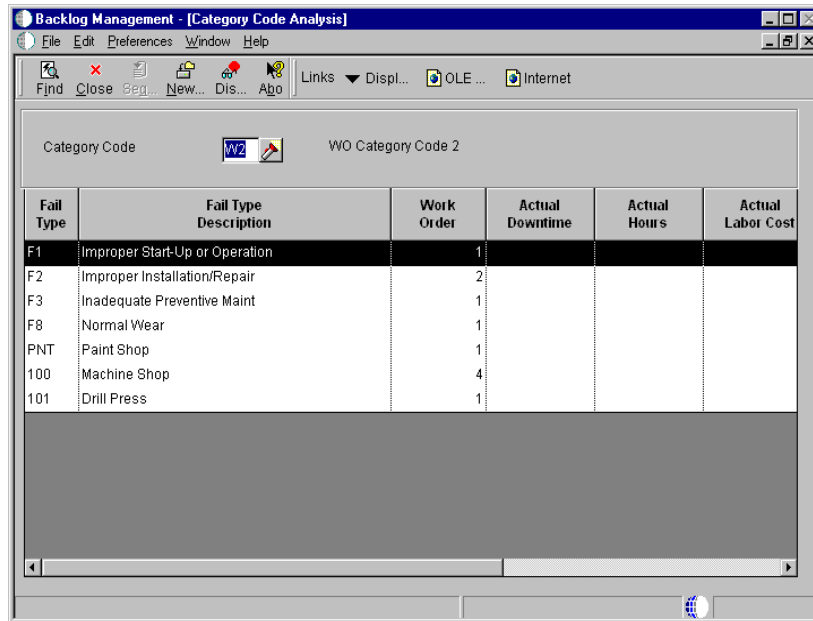
Reviewing Work Order Costs by Category Code

You can review work order costs that are summarized based on work order category codes. This is especially useful for reviewing the total number of work orders, based on the category of work order, as well as the costs associated with them and the characteristics of the work performed. For example, you can set up a work order category code to represent equipment failures, and use each code to represent a different type of failure, such as inadequate lubrication or operator error. You can then review work order costs by category code and see the costs associated with operator error. The summary of work order costs includes the number of work orders for each type of failure.

► To review work order costs by category code

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, choose Category Code Analysis from the Form menu.



The screenshot shows a software window titled "Backlog Management - [Category Code Analysis]". The window has a menu bar with "File", "Edit", "Preferences", "Window", and "Help". Below the menu bar is a toolbar with icons for "Find", "Close", "Save", "New...", "Dis...", "Ago", "Links", "Displ...", "OLE...", and "Internet". The main area of the window contains a "Category Code" field with a dropdown menu showing "W2" and a "WO Category Code 2" field. Below these fields is a table with the following data:

Fail Type	Fail Type Description	Work Order	Actual Downtime	Actual Hours	Actual Labor Cost
F1	Improper Start-Up or Operation	1			
F2	Improper Installation/Repair	2			
F3	Inadequate Preventive Maint	1			
F8	Normal Wear	1			
PNT	Paint Shop	1			
100	Machine Shop	4			
101	Drill Press	1			

2. On Category Code Analysis, complete the following field and click Find:

- Category Code

Costs for all work orders appear on Category Code Analysis regardless of any selection criteria on Backlog Management or Equipment Backlog.

Reviewing Costs by Parent Work Order

You can quickly review all work order costs associated with a parent work order. Use Work With Cost by Parent Work Order to review the total amounts and hours at the parent work order level, with individual work orders summarized as follows:

- Estimated amount or hours
- Actual amount or hours
- Variance between estimated and actual

You review costs by amounts or hours. After you review a summary of costs for the parent work order, you can review detailed costs for each work order in the project.

► To review costs by parent work order

From the Equipment Work Orders menu (G1316), choose Parent Work Order Inquiry.

1. On Work With Cost by Parent Order, complete the following field and click Find:
 - Order Number
2. To review costs for a particular work order, choose the record and then choose Work Order Cost Detail from the Row menu.
Work With Cost by Work Order appears.

See Also

- *Reviewing Work Order Transactions*

Reviewing Estimated and Actual Work Order Amounts

Use Estimate to Actual Variance to review and analyze labor costs for each operation sequence charged to a work order. In addition, you can review the following:

- Total labor amounts or hours charged to a work order.
- Individual parts amounts charged to a work order.
- Total parts amounts charged to a work order.
- All miscellaneous costs charged to a work order, such as an accounts payable voucher for an outside service.
- A comparison of actual amounts with estimated amounts. You can review unit quantities or currency amounts.

Note: To review actual amounts for a specific routing, you must enter the operation sequence when you enter time against a work order.

Before You Begin

- To review actual amounts for parts and materials, you must set up inventory document types (user defined code 48/ID). See *Understanding User Defined Codes*.

► To review estimated and actual work order amounts

From the Equipment Work Orders menu (G1316), choose Estimate to Actual Variance.

1. On Work With Budget To Actual Variance, complete the following field and click Find:

- Order Number

Actual amounts for parts and materials appear, based on inventory transactions from the Item Ledger table (F4111). Actual labor amounts appear, based on payroll transactions from the Employee Transaction History table (F0618) and the Employee Transaction Detail table (F06116). The actual amounts for miscellaneous costs that appear are based on general ledger transactions.

If the work order that you want to review does not include a parts list or labor routing instructions, the system uses the estimated amounts from the work order.

Adding Costs to Work Orders

You add costs to a work order whenever you issue parts and materials to a work order. You can use any J.D. Edwards system that creates transactions (journal entries) with a subledger type of W in the Account Ledger table (F0911) to add costs to a work order. Each transaction contains the work order number.

Adding costs to work orders consists of the following task:

- Issuing parts to a work order

Issuing Parts to a Work Order

When the maintenance tasks associated with a work order require parts, you add the cost of the parts to the work order by issuing parts to the work order. Depending on the parts requirements of the maintenance tasks and how you have applied parts to a work order, you can choose from the following methods to issue parts to a work order:

Issuing parts included on parts lists Use this method if you have set up parts lists for your work orders. When you issue parts included on the work order parts list, the system reflects a reduction in available inventory for the parts by reducing the commitment for the parts.

See *Commitments* in *Appendix A - Inventory Concepts and Setup* for more information about inventory commitments.

Issuing miscellaneous parts to a work order Use this method if you need to assign different account numbers to parts issues than the account from the work order parts list. You can also use this method if you want to add parts costs directly to a piece of equipment without using a work order.

Issuing parts to a work order consists of the following tasks:

- Issuing parts included on the work order parts list
- Issuing miscellaneous parts to a work order

- Reviewing inventory issues
- Posting inventory issues to the G/L

Before You Begin

- Set up the 4122 and 4124 AAIs in the Inventory Management system. See *Setting Up AAIs in Distribution Systems* in the *Inventory Management Guide*.
- Set up branch/plant constants in the Inventory Management system to specify how you want the system to display parts transactions in the G/L. You can specify either part numbers or part descriptions, but not both. See *Defining Branch/Plant Constants* in the *Inventory Management Guide*.

See Also

- *Appendix A: Inventory Concepts and Setup* for more information about inventory setup requirements specific to Equipment/Plant Maintenance

Issuing Parts Included on the Work Order Parts List

You issue parts included on the work order parts list when you need to add costs for parts to a work order. This method is especially useful when you want to issue all parts from the parts list to the work order at the same time.

You can also use Work Order Inventory Issues to issue parts to a work order that are not included on the work order parts list. When you issue parts that are not included on the work order parts list, the system updates the parts list to include the additional parts. You can use processing options to restrict the parts issued to a work order to only parts that are included on the parts list.

You can issue nonstock parts to a work order if you have defined them on the work order parts list. When you use Work Order Inventory Issues to issue nonstock parts, the system updates the work order parts list but does not create any accounting transactions.

Note: When you issue parts to a work order for a piece of equipment for which you have defined a warranty, the system provides a soft warning indicating the warranty status.

Before You Begin

- Review the processing options for Work Order Inventory Issues and verify that you have chosen the option for the Equipment Management selection.

Equipment/Plant Management shares Work Order Inventory Issues with other J.D. Edwards manufacturing systems. In addition to the Equipment Management selection, other processing options apply specifically to Equipment/Plant Management.

See Also

- *Appendix A: Inventory Concepts and Setup* for more information about stock and non-stock parts

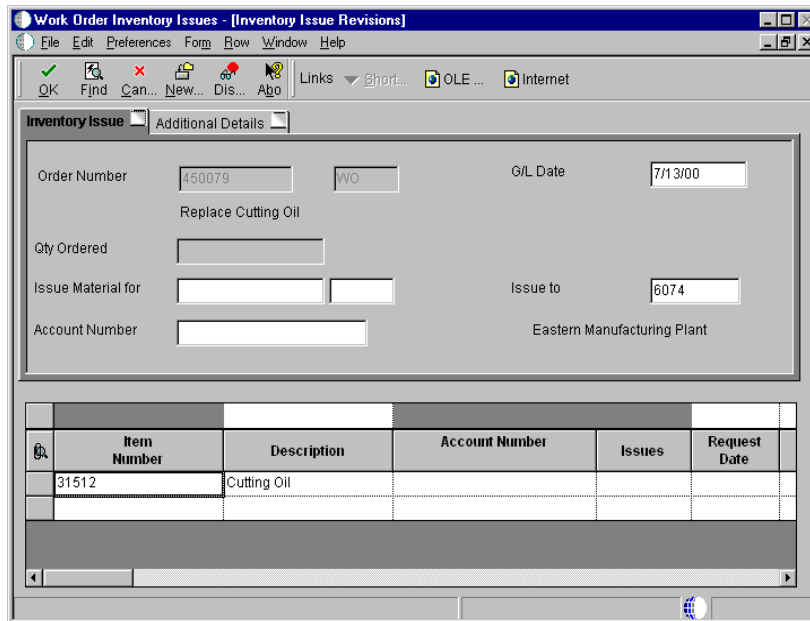
► **To issue parts included on the work order parts list**

From the Work Order Processing menu (G1317), choose Work Order Inventory Issues.

1. On Work With Work Order Inventory Issue, complete the following field and click Find to locate a work order:
 - Document (Order No, Invoice, etc.)

The system updates the form with default values for all inventory items and quantities from the work order parts list.

2. To access Inventory Issue Revisions, choose any item and click Select. Regardless of the item that you choose, the entire work order parts list appears on Inventory Issue Revisions.



3. On Inventory Issue Revisions, review the following fields:
 - Issue Material for
 - Issue to
 - Component Branch
 - Location E1
 - Lot/Serial Number
4. To reverse an inventory issue transaction, enter a negative quantity for the item that you want to reverse in the following field:
 - Quantity Amount Total
5. To close out a part that is no longer required, remove the value in the following field for the part and then choose Close Line from the Row menu:
 - Quantity Amount Total

When you close out a part, the system indicates closed in the Description field for that part.

6. Click OK to complete the issue process.

Field	Explanation
Issue Material for	The total quantity requested.
Issue to	A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, a location, and any other address book members.
Component Branch	A secondary or lower-level business unit. The system uses the value that you enter to indicate that a branch or plant contains several subordinate departments or jobs. For example, assume that the component branch is named MMCU. The structure of MMCU might be as follows: Branch/Plant - (MMCU) Dept A - (MCU) Dept B - (MCU) Job 123 - (MCU)
Location	The area in the warehouse where you receive inventory. The format of the location is user defined and you enter the location format for each branch/plant.
Lot/Serial	A number that identifies a lot or a serial number. A lot is a group of items with similar characteristics.

Field	Explanation
Quantity Issued	The available quantity can be on-hand balance minus commitments, reservations, and backorders. This is user defined in branch/plant constants.

See Also

- *Issuing Materials Manually* in the *Shop Floor Guide* for the processing options for this program

What You Should Know About Processing Options

Updating the subledger field (Equipment Mgt, option 2) J.D. Edwards recommends that you always choose to update the subledger field in the G/L transaction record in the Account Ledger table (F0911) with the work order number.

Entering a status code (Edits 1, option 2) The status code that you enter should be within the range of codes that you set up in the work order activity rules. The system displays a warning if you enter a status code that is not allowed in the work order activity rules.

See *Setting Up Work Order Activity Rules* for more information.

Issuing Miscellaneous Parts to a Work Order

Use Inventory Issues to issue miscellaneous parts to a work order when you need to assign different account numbers to each part. You can also use this method if you want to add parts costs directly to a piece of equipment without using a work order.

Note: If you use Inventory Issues to issue parts from inventory that are already included in the parts list for the work order, the system does not relieve the inventory commitment. If you need the system to relieve the inventory commitment, use Work Order Inventory Issues.

Before You Begin

- Verify that you have purchased and installed the following systems. You must have installed these systems to be able to access Inventory Issues:

- System 40 - Inventory Base and Order Processing
 - System 41 - Inventory Management
- You must set processing options to display equipment-based issues or equipment and subledger-based issues to enter an equipment number and a work order number on Inventory Issues.

See Also

- *Issuing Parts Included on the Work Order Parts List* for more information about using Work Order Inventory Issues

► To issue miscellaneous parts to a work order

From the Work Order Processing menu (G1317), choose Inventory Issues.

1. On Work With Inventory Issues, click Add to access Inventory Issues.

Item Number	Item Description	Quantity	UM	Location
-------------	------------------	----------	----	----------

2. On Inventory Issues, complete the following fields:
 - Business Unit
 - Explanation - Transaction
3. Complete the following optional field:

- G/L Date
4. For each part, complete the following fields:
- Item Number
 - Quantity Available
 - Location E1
 - Lot/Serial Number
 - Account Number - Input (Mode Unknown)
 - Asset Number-Input
5. For each part, complete the following optional fields and click OK:
- Unit of Measure - Transaction
 - Subledger Type
 - Categories - Work Order 01
 - Business Unit
 - Extended Amount

Processing Options for Inventory Issues (P4112)

Defaults

1. Document Type _____
 A specific document type
 Blank = No default
2. Location/Lot _____
 1 = Default from primary location
 Blank = No default

Versions

- Exit Versions
 A specific version
 Blank = ZJDE0001
1. Journal Entries (P0911) _____
2. Item Ledger (P4111) _____
3. Warehouse Request (P46100) _____

Process

Equipment-Plant Maintenance

- 1. Issue Type _____
 - 1 = Equipment information only
 - 2 = Subledger information only
 - 3 = Equipment and Subledger information
 - Blank = Neither (Standard issues)

- 2. Account Number _____
 - 1 = Required
 - Blank = Not required

- 3. Cost Entry _____
 - 1 = Display but disallow entry
 - 2 = Do not display
 - Blank = Allow entry

- 4. Journal Entries _____
 - 1 = Summarized by account number
 - Blank = Detailed (each line)

- 5. Issue Quantity _____
 - 1 = Allow negative quantity available
 - Blank = Dissallow negative quantity available

- 6. Lots on Hold _____
 - 1 = Allow if lot on hold
 - Blank = Disallow if lot on hold

- 7. Item Sales History _____
 - 1 = Update table
 - Blank = Do not update table

- Interop

- 1. Transaction Type _____
 - A specific transaction type
 - Blank = No outbound interoperability processing

- Agreement

- 1. Agreement Assignment (FUTURE) _____
 - 1 = Assign if only one agreement
 - 2 = Display all that apply
 - 3 = Assign earliest expiration
 - Blank = Do not assign

Reviewing Inventory Issues

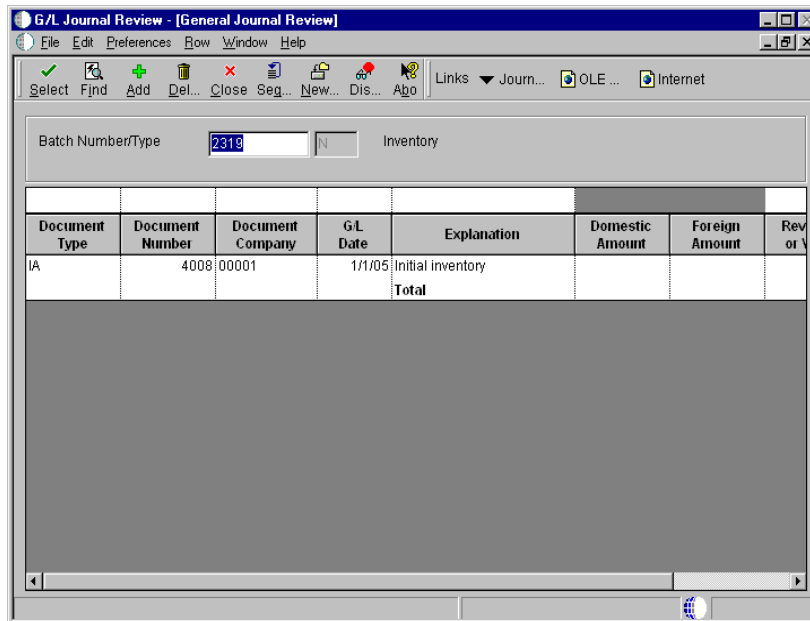
You can review inventory issues for errors prior to posting them to the general ledger. You can review a variety of detailed information about inventory issue batches, such as individual journal entries for an inventory issue.

► **To review inventory issues**

From the Work Order Processing menu (G1317), choose G/L Journal Review.

1. On Work With Batches, to narrow your search to specific batches, complete any combination of the following fields in the Query by Example row and click Find:
 - Batch Type
 - Batch Number
 - Batch Date
 - Batch Status
 - User ID

2. To access General Journal Review, choose a batch and click Select.



Posting Inventory Issues to the G/L

From the Work Order Processing menu (G1317), choose Post Inventory to G/L.

When you issue parts to a work order, the system creates unposted G/L transaction records in the Account Ledger table (F0911). Each transaction contains the work order number and the equipment number. You must post these

transactions to the G/L. You can use Post Inventory to G/L to post transactions to the G/L. When you post transactions to the G/L, the system updates the Account Balances table (F0902).

After you post inventory transactions to the G/L, you must post them to equipment in order to update the Asset Account Balances table (F1202). Processing options in the G/L post program enable you to post transactions to equipment at the same time that you post to the G/L.

When you choose Post Inventory to G/L, the system displays Processing Options Revisions. After you choose the appropriate processing options, the system displays a message that the batch was submitted to post.

See Also

- *Working With Batch Versions* in the *OneWorld Foundation Guide* for more information about copying, changing, and running batch versions

Processing Options for Inventory G/L Post (R09801)

Print

- 1) Enter which Account Number to print on the report. '1' = Structured Account; '2' = Short Account ID; '3' = Unstructured Account; ' ' = Default Account Format.

Account Format _____

Versions

- 1) Enter a version of the Detailed Currency Restatement (R11411) to execute. If left blank, Detailed Currency Restatement entries will not be created. (i.e. ZJDE0001)

Detailed Currency Restatement
Version _____

- 2) Enter a version of the Fixed Asset Post (R12800) to execute. If left blank, Fixed Asset Post will not be executed. (i.e. ZJDE0001)

Fixed Asset Post Version _____

- 3) Enter a version of the 52 Period Post (R098011) to execute. If left blank, 52 Period Post will not be executed. (i.e. ZJDE0001)

52 Period Post Version _____

Edits

- 1) Enter a '1' if you wish to update Account ID, Company, Fiscal Year, Period Number, Century, and Fiscal Quarter in records being posted, prior to editing and posting the records.

Update Transaction _____

Taxes

- 1) Enter when to update the Tax File (F0018). '1' = V.A.T. or Use Tax only; '2' = for all Tax Amounts; '3' = for all Tax Explanation Codes; ' ' = no update to Tax File (Default).

Update Tax File _____

- 2) Adjust V.A.T. Account for Discount Taken. The Tax Rules file must be set to Calculate Tax on Gross Amount, including Discount and Calculate Discount on Gross Amount, including Tax. Tax explanation must be a 'V'.

'1' = Update VAT only; '2' = Update VAT, Ext. Price and Taxable. (for discounts taken) _____

- 3) Adjust V.A.T Account for Receipt Adjustments and Write Offs. Tax explanation must be a 'V'.

'1' = Update VAT only; '2' = Update VAT, Ext. Price and Taxable. (for receipt adjustments and write offs) _____

Process

- 1) Enter a '1' if you wish to explode parent item time down to the assembly component level. Component billing rates will be used. (This applies to batch type 'T' only.)

Explode parent item time. _____

Cash Basis

- 1) Enter a '1' to create and post Cash Basis accounting entries. (Applies to batch types G, K, M, W, R only.)

Cash Basis Accounting _____

- 2) Enter units ledger type for Cash Basis Accounting entries. (Default of blank will use "ZU" ledger type.)

Units Ledger Type _____

- 3) Enter a version of "Create Cash Basis Entries" (R11C850) to execute.
(Default of blank will use version ZJDE0001.)

Cash Basis Accounting Version _____

PM Cycle

Preventive Maintenance Cycle

Use Equipment/Plant Maintenance to plan, monitor, and complete routine maintenance operations. When you use Equipment/Plant Maintenance, you can minimize equipment breakdowns and unscheduled repairs.

When you use Equipment/Plant Maintenance to manage your equipment maintenance needs, you define the type and frequency of each maintenance task for each piece of equipment in your organization. The preventive maintenance (PM) cycle refers to the sequence of events that make up a maintenance task, from its definition to its completion. Since most PM tasks are commonly performed at scheduled intervals, parts of the PM cycle repeat, based on those intervals.

The PM cycle consists of the following tasks:

- Working with PM schedules
- Working with meter readings
- Updating PM schedule information
- Changing the status of PMs to complete

Before You Begin

- Create equipment masters for all pieces of equipment that you want to maintain. See *Creating an Equipment Master*.

Terms and Concepts

You should be familiar with the following terms and concepts related to the PM cycle:

Service type You define service types to describe individual preventive maintenance tasks. You can define as many service types as you need. You can set up service types to apply to a particular piece of equipment or a class of equipment. Examples of service types include the following:

- 250-hour inspection
- Clutch adjustment
- Lubricate ventilation fan
- 10,000-hour engine rebuild

PM A PM refers to one or more service types that are scheduled to be performed for a piece of equipment. You typically specify that a PM be performed at a predefined point in time. The point in time can be based on days, date, or when a piece of equipment accumulates a predefined number of statistical units, such as hours, miles, and so on. You identify how many units have accumulated for each piece of equipment by periodically entering equipment meter readings.

Preventive maintenance schedule You create one PM schedule for each piece of equipment for which you want to perform PMs. The PM schedule defines which service types should apply to a piece of equipment. The PM schedule also defines the service interval for each service type. A service interval refers to the frequency at which the service types will be performed.

For example, you could create a PM schedule for a piece of equipment that schedules a belt inspection every 5,000 hours, and a mandatory belt replacement every 20,000 hours.

PM status When the system creates a record for a PM, it assigns an initial status of 01 (Maintenance Task Defined). You define other statuses to indicate the particular steps that a PM goes through before it is completed.

When you complete a PM, the system assigns it a status of 99 (Maintenance Complete).

Primary Procedures

Although the level of complexity of the PM cycle differs from company to company, a typical PM cycle includes the following procedures:

- Creating PM schedules for each piece of equipment
- Scheduling PMs
- Completing PMs

Creating PM Schedules for Each Piece of Equipment

When you create a PM schedule, you include the service types that the equipment requires and the intervals at which the service types must be performed.

Scheduling PMs

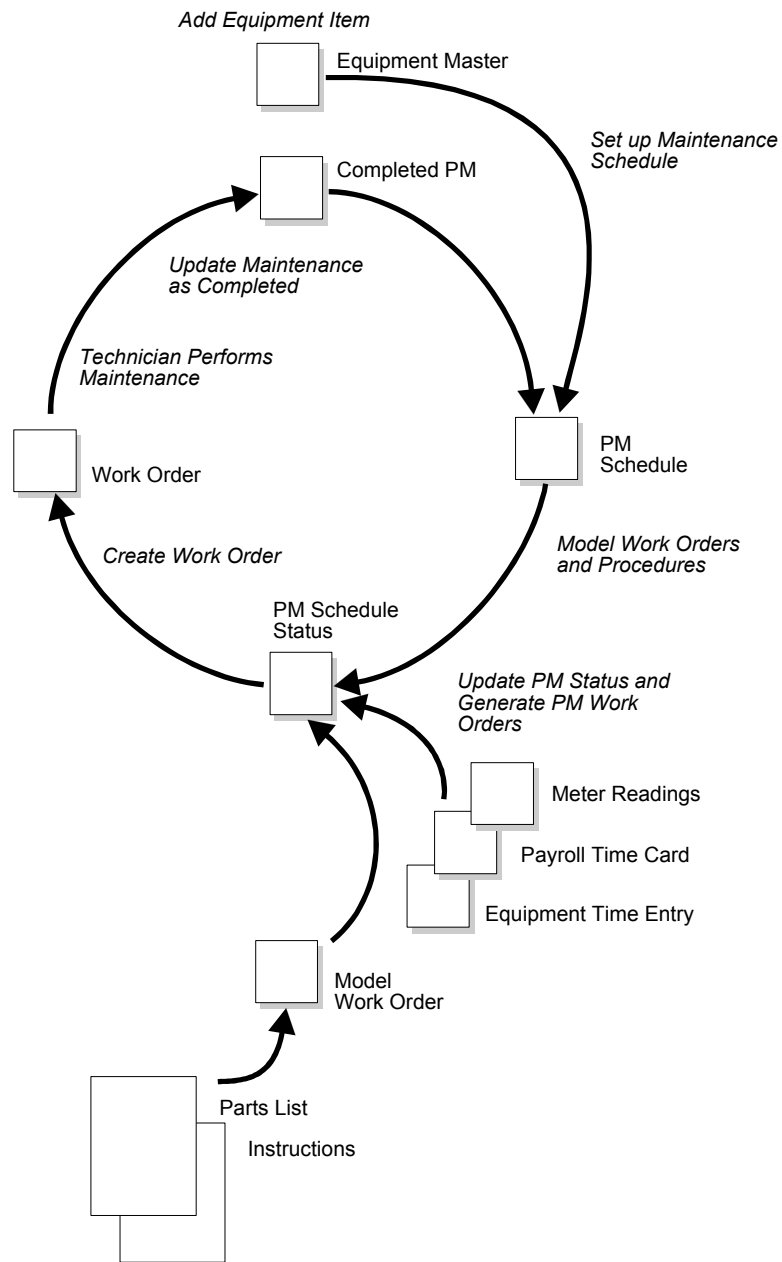
You schedule maintenance by periodically updating PM schedule information. When you update PM schedule information, the system determines which service types are due to be performed, based on meter readings, dates, and other user defined criteria. If service types are due to be performed, the system updates the PM status. In addition, depending on how you set up your system, the system generates a PM work order.

Completing PMs

You indicate when maintenance has been performed by completing PMs and PM work orders. When you complete a PM, the system creates a historical record of it. For most service types other than warranty service types, the system then generates a new PM based on statistical information that you gather when you perform the maintenance. The system does not generate a new PM for warranty service types.

Preventive Maintenance Cycle

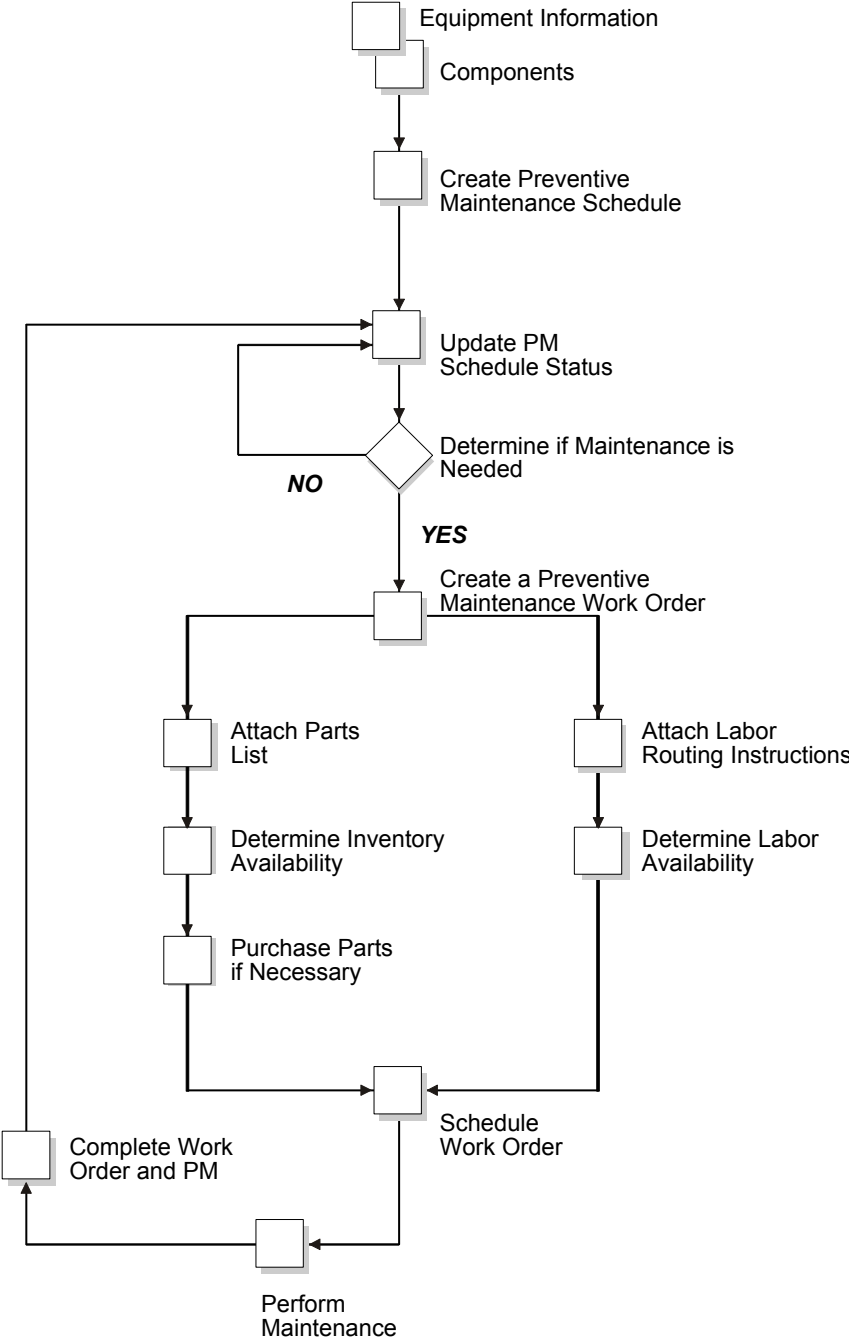
The following graphic shows the progression of events in a typical maintenance cycle:



Preventive Maintenance Process Flow

The following graphic shows the progression of a typical PM process:

Preventive maintenance cycle



Working with PM Schedules

You create a PM schedule for each piece of equipment that you want to maintain. On each PM schedule, you indicate all of the service types you want to associate with the piece of equipment. You also specify the rules governing how and when the service types are performed. In addition, you can use PM schedules to signal warranty expirations, equipment messages such as warnings and problem reports, and other planning events not necessarily associated with preventive maintenance tasks.

You can link related service types to a primary service type. When you link service types, the system determines if separate maintenance tasks can be performed concurrently, based on rules that you set up.

You can set up maintenance loops by a specific PM service type. A maintenance loop links a particular routine maintenance task, such as a weekly inspection, to a group of equipment for which the maintenance task applies. For example, you can create a PM schedule to perform a weekly lubrication for one lathe on a production line and set up a maintenance loop to inspect all other lathes on the line.

You can create model PM schedules to streamline maintenance scheduling for similar pieces of equipment. When you add a piece of equipment to your maintenance organization, the system uses category code values from the model PM schedule to create a unique PM schedule for the equipment.

You can schedule PMs to be performed based on the following:

- A specific date
- A specified interval of days since maintenance was last performed
- Statistical units based on employee usage, such as employee hours
- Statistical units based on meter readings, such as fuel, miles, or hours

Working with PM schedules consists of the following tasks:

- Creating a PM schedule
- Linking service types
- Creating a maintenance loop

- ❑ Working with model PM schedules

Creating a PM Schedule

You create a PM schedule for each piece of equipment that you want to maintain. On each PM schedule, you indicate all of the service types that you want to associate with the piece of equipment. You also specify the rules governing how and when the service types are performed. Service types can be for regularly scheduled maintenance, as well as unscheduled maintenance tasks, such as cleanings on an as-needed basis, or repairs at the point of equipment failure. In addition, you can use PM schedules and service types to signal warranty service, equipment messages such as warnings and problem reports, and other planning events not necessarily associated with preventive maintenance tasks, such as license renewals and recertifications.

Before You Begin

- ❑ Verify that the following are set up:
 - Service types (user defined code 12/ST)
 - Work order priority codes (user defined code 00/PR)
 - Standard procedures

See Also

- *Understanding User Defined Codes*
- *Setting Up Standard Procedures*

► To create a PM schedule

From the Equipment/Plant Maintenance menu (G1315), choose Equipment PM Schedule.

1. On Work With Equipment PM Schedule, complete the following field and click Add:
 - Equipment Number

2. On Equipment PM Schedule, complete the following field:
 - Service Type
3. For each service type that you enter, complete the following optional fields in the Schedule Interval portion of the form:
 - Schedule Date
 - Frequency Indicator
 - Multiple
4. For each service type for which you did not enter a schedule date, complete any of the following schedule interval fields:
 - Hours
 - Miles
 - Fuel
 - Days

If you entered a value in the Frequency Indicator field, you cannot enter a service interval based on days.

You can enter a service interval based on service days and schedule date. If you enter both service days and a schedule date, the system schedules the maintenance to come due based on the schedule date that you indicate.

Subsequent schedule dates for maintenance are calculated in conjunction with the service days interval (based on the last completion date).

You can enter service types for unscheduled maintenance that do not have schedule dates or intervals associated with them. Service types for unscheduled maintenance tasks should, however, include a model work order number. You use Backlog Management or Equipment Backlog to specify when a service type for unscheduled maintenance is due.

5. Complete the following PM generation and planning fields:

- Occurrences

Depending on how the processing options are set, you might not be able to manually enter a value in the Occurrences field.

- Procedure

6. If you use model work orders, complete the following field:

- Model WO

If you enter a value in the Procedure field and you enter a model work order number, the system displays a warning message indicating that the work order might have its own procedure that could conflict with the procedure that you entered.

7. If the maintenance task for the piece of equipment has been performed but this is the first PM to be applied to the equipment, complete the following fields in the Last Completed portion of the form:

- Hours
- Miles
- Fuel
- Date

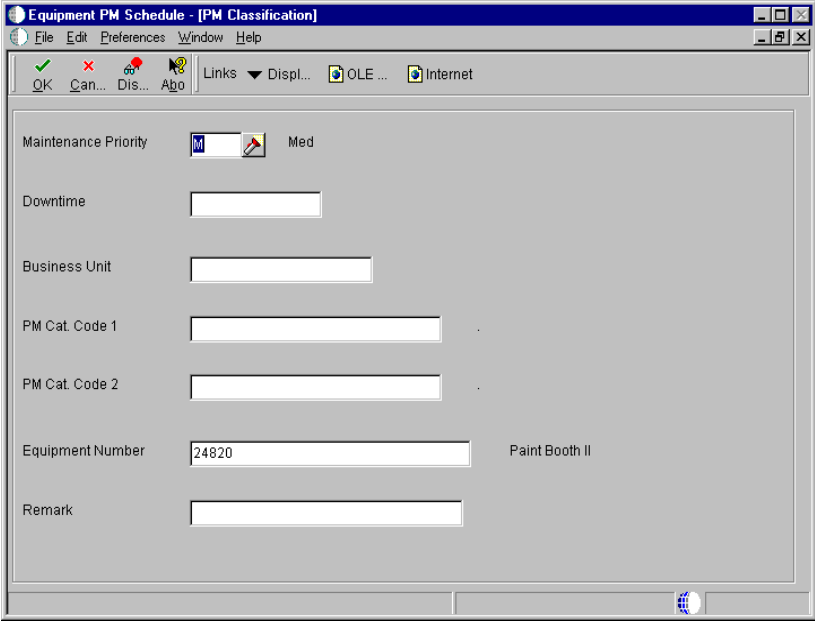
8. To add the record, click OK and then click Cancel.

The Work With Equipment PM Schedule form appears.

9. On Work With Equipment PM Schedule, click Find to display the record for the PM schedule that you created.

10. Choose the record for the PM schedule that you created and click Select.

11. On Equipment PM Schedule, choose PM Classification from the Form menu.



12. On PM Classification, complete the following optional fields:

- Maintenance Priority
- Downtime
- Business Unit
- PM Cat. Code 1
- PM Cat. Code 2
- Related Equipment
- Remark

Field	Explanation
Service Type	A user defined code (system 12, type ST) that describes the preventive maintenance service to be performed. Examples of codes include CLUTCH for adjust clutch, OIL for change oil, 10H for 10 hour service, and so forth.

Field	Explanation
Schedule Date	<p>The date that you want to receive a reminder message about an asset.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is the future date on which the scheduled maintenance is due. You can enter a service interval based on the schedule date and service days. If you enter both a schedule date and service days, the system schedules the maintenance to come due, based on the schedule date that you indicate. Subsequent schedule dates for maintenance are calculated, based on the last completed date, in conjunction with the service days interval.</p>
Frequency Indicator	<p>When used in conjunction with Schedule Date, this field indicates the frequency at which the system schedules maintenance. When maintenance is completed, the system automatically schedules the next maintenance according to the value that you enter in this field. Valid values are:</p> <ul style="list-style-type: none">blank No frequency indicator1 Same date each month2 Last date each month3 Same date each quarter4 Same date each year5 Same day each week6 Semi-annually (same date at six month intervals)

Field	Explanation
Multiple	<p>This code determines whether maintenance service types can be rescheduled and can come due again before the maintenance task for the originally scheduled service type has been completed. Valid codes are:</p> <ul style="list-style-type: none"> Blank One Cycle (default). Maintenance is not rescheduled until the original maintenance task has been completed. 1 Multiple Cycle with Multiple Work Orders. When the service type has come due, it is automatically rescheduled to come due again regardless if the original maintenance is completed. Multiple work orders can accrue. 2 Multiple Cycle. When the service type has come due, it is automatically rescheduled to come due again regardless if the original maintenance is completed. Only one work order can accrue. 3 Maintenance Loop. The Update PM Schedule program assigns the Maintenance Loop code to PM schedules generated through maintenance loops. These PM schedules are not repeated in the PM cycle. Maintenance tasks for all equipment indicated in the maintenance loop are performed under a single work order. 4 Warranty. A code that indicates that the equipment is under warranty. The system provides a warning on the Work Order Inventory Issues form and the Purchase Request form (when accessed from the Work Order Parts List). When a PM that includes warranty service types is completed, the system includes the warranty service in the PM history record, but does not reschedule the warranty service types.
Schedule Interval Hours	<p>The hours to be expended before you schedule maintenance. To determine if maintenance is due, the Update PM Schedule Status program uses this quantity and the threshold percent from the maintenance rules table. It calculates the total hours as the service hours plus the hours run as of the last date you performed a maintenance. It then compares this amount to the actual hours from the AA ledger for the AT00 automatic accounting instruction to determine if maintenance is due.</p> <p>NOTE: Hours is only an example of a statistical unit. You can define other statistical units appropriate to your organization within the AT00 automatic accounting instructions.</p>

Field	Explanation
Occurrences	<p>The estimated number of occurrences per year for the service type. The PM Projections program uses information from this field, in combination with the last completed date, to project future schedule requirements.</p> <p>You can use processing options to automatically calculate the estimated occurrences, based on one of the following:</p> <ul style="list-style-type: none"> • One year of PM history • Two years of PM history • Inception-to-date PM history <p>.....<i>Form-specific information</i>.....</p> <p>If you use processing options to calculate the estimated occurrences, you cannot manually update this field.</p>
Procedure	A list of valid codes for a specific user defined code list.
Model WO	A number that identifies an original document. This can be a voucher, an order number, an invoice, unapplied cash, a journal entry number, and so on.
Last Completed Hours	Number of hours at last maintenance.
Maintenance Priority	This field is used to indicate the relative priority that this maintenance has in relation to all other maintenance.

Linking Service Types

For each piece of equipment that you maintain, you can link several related service types to a primary service type. For example, for a particular piece of equipment, you might set up the following:

- A primary service type for a 1000-hour inspection
- A linked service type for a 500-hour inspection

When the primary service type is scheduled to be performed, the linked service types will be scheduled at the same time. This reduces equipment downtime and the possibility of performing unnecessary maintenance.

You use threshold percentages to specify when the system should include the maintenance tasks for linked service types when it schedules the primary service type. A threshold percentage is the percentage of a service interval that you define as the trigger for maintenance to be scheduled. For example, you might set up a service type to be scheduled every 100 hours with a threshold percentage of 90 percent. When the equipment accumulates 90 hours, the system schedules the maintenance.

The system schedules the related maintenance to be performed with the primary maintenance if the equipment is within the threshold percentage that you specify. If the system has already scheduled the PMs for the linked service types when the primary service type is due to be scheduled, the system might cancel the work orders or process them normally, depending on the current status of the PMs and the maintenance rules that you define for the primary service type.

You can specify whether the system creates a separate work order for each linked service type, or combines maintenance tasks for all linked service types into the work order for the primary service type. You can also specify how the system processes work orders that it creates for linked service types that have been scheduled before the primary service type. For example, if the system has already created a work order for a linked service type when the primary service type becomes due, you can specify the status, such as completed or canceled, that the system assigns to the existing work orders.

► To link service types

From the Equipment/Plant Maintenance menu (G1315), choose Equipment PM Schedule.

1. On Work With Equipment PM Schedule, complete the following field and click Find:
 - Equipment Number
2. Choose a service type to which you want to link other service types and choose Associations from the Row menu.

Service Type	Service Description	Threshold Percent	Threshold Days	Separate Work Order	Work Order Status
--------------	---------------------	-------------------	----------------	---------------------	-------------------

3. On Associated Service Types, complete the following fields:

- Service Type
- Separate Work Order
- Work Order Status

Complete the Work Order Status field only if you previously entered 2 or 3 in the Separate Work Order field.

4. Complete one of the following fields and click OK:

- Threshold Percent
- Threshold Days

You cannot enter a value in both of the fields.

Field	Explanation
Separate Work Order	<p>A code that determines whether a separate work order will be used when grouping maintenance tasks together.</p> <ol style="list-style-type: none"> <li data-bbox="794 380 1403 436">1 The maintenance for separate tasks will be done under separate work orders. <li data-bbox="794 447 1425 766">2 The maintenance for separate tasks will be done under one work order or the maintenance for one task will render the maintenance for the other tasks unnecessary. If you are combining work orders, the system will assign a canceled work order status to any outstanding work order. For example, if you combine work orders for a 250-hour service and a 500-hour service, the system will assign a cancelled work order status to the work order for the 250-hour service.
<p>Note: You can enter Y for 1 or N for 2.</p>	
Threshold Percent	<p>A percentage measure that indicates how close a piece of equipment is to needing maintenance. This percentage is based on the greater of the actual date, miles, hours, or fuel consumption. A percentage of 090 indicates that the piece of equipment is 10% away from needing maintenance. A percentage greater than 100 indicates that maintenance is past due.</p> <p>NOTE: Miles, hours, and fuel are only examples of statistical units. You can define other statistical units appropriate to your organization within the Equipment/Plant Management automatic accounting instructions.</p>
Threshold Days	<p>A daily measure of how close an equipment maintenance line item is to being eligible for being performed, taking into account the greater of the actual date, miles, hours, or fuel consumption compared to the threshold date, miles, hours, or fuel consumption.</p> <p>NOTE: Miles, hours, and fuel are only examples of statistical units. You can define other statistical units appropriate to your organization within the Equipment/Plant Management automatic accounting instructions.</p>

See Also

- *Setting Up Maintenance Rules*

Creating a Maintenance Loop

Create a maintenance loop when you need to perform identical routine maintenance tasks, such as equipment inspections, on multiple pieces of equipment.

When you use maintenance loops, you eliminate the need for separate work orders for each piece of equipment that you inspect. For example, if you have 25 pumps of similar style and configuration for which you perform a routine inspection every week, you can do the following:

- Set up a PM service type to perform a weekly inspection for one pump
- Apply the other pumps to the PM for the first pump

When the service type for the weekly inspection comes due, the system generates a PM for each pump, but generates only one work order for the original pump. When the system creates a work order for a maintenance loop PM, it stores the associated equipment in the work order record type that you specify in equipment constants.

The system only recycles the original PM. It does not recycle the PMs for the associated equipment.

You can create a maintenance loop using a virtual or logical piece of equipment, such as a production line or department. The logical equipment encompasses the equipment that you want to include in the loop. If you use a logical piece of equipment as the basis for a maintenance loop, you must create an equipment master for the logical piece of equipment.

Before You Begin

- Set up PM service types for maintenance loop tasks
- Create a PM schedule that includes the service type or types for which you want to establish maintenance loops

► To create a maintenance loop

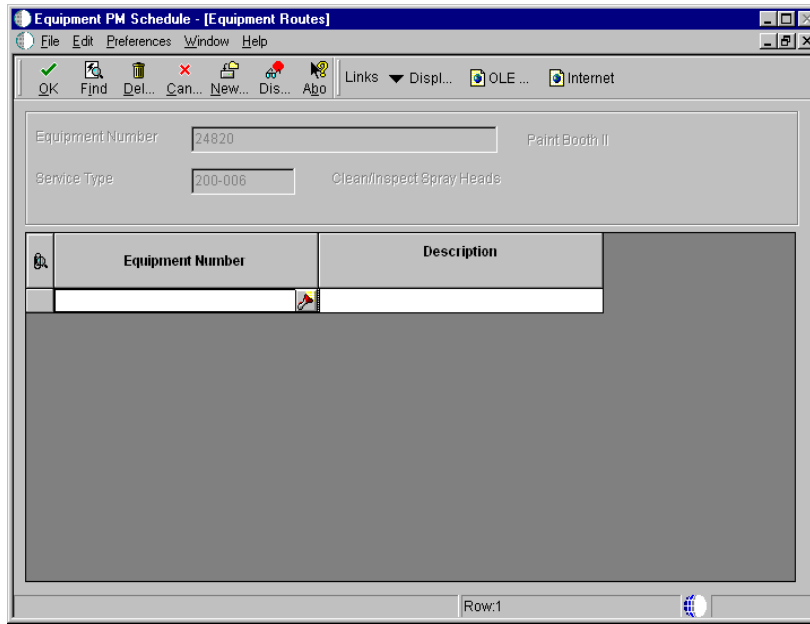
From the Equipment/Plant Maintenance menu (G1315), choose Equipment PM Schedule.

1. On Work With Equipment PM Schedule, complete the following field and click Find:

- Equipment Number

The PM schedule for the equipment that you enter must include the service type for the maintenance loop that you want to create.

2. Choose a service type and then choose Routes from the Row menu.



3. On Equipment Routes, complete the following field for each piece of equipment that you want to include on the maintenance loop:
 - Equipment Number

Related Tasks

Completing work orders for maintenance loops

You complete the work order for a maintenance loop by accessing the work order directly from Backlog Management or by using PM Backlog.

When you complete the work order, the system indicates a completed status for all pieces of equipment included in the maintenance loop. Use this method when you have completed the maintenance task for all pieces of equipment.

See *Revising Work Orders* for more information about completing work orders using Backlog Management.

Completing individual PMs in a maintenance loop

You use PM Backlog to specify individual pieces of equipment for which you want to indicate a status of complete. This is useful if you have completed the maintenance task for some of the equipment in a maintenance loop, but do not want to indicate a status of complete for other equipment. For example, a piece of equipment scheduled for inspection might not be available on the date of the inspection.

See *Changing the Status of PMs to Complete* for more information about completing individual PMs.

When you use PM Backlog to complete individual PMs, the status of the work order remains open. To complete the work order for a maintenance loop, you must manually change the work order status.

Working with Model PM Schedules

Use model PM schedules to store PM schedule information that you want to apply to multiple pieces of equipment. You create model PM schedules based on combinations of equipment category codes. When you need to create PM schedules for equipment, you can use a model PM schedule that contains the appropriate category codes.

The system stores model PM schedules in a table which it accesses when you apply a particular model to a piece of equipment. When you apply a model PM schedule to a piece of equipment, the system creates a unique record that you can modify to satisfy the maintenance requirements of that equipment. The model PM schedule remains unaltered and can be applied to other equipment as needed.

Working with model PM schedules consists of the following tasks:

- Creating a model PM schedule
- Applying a model PM schedule to a piece of equipment

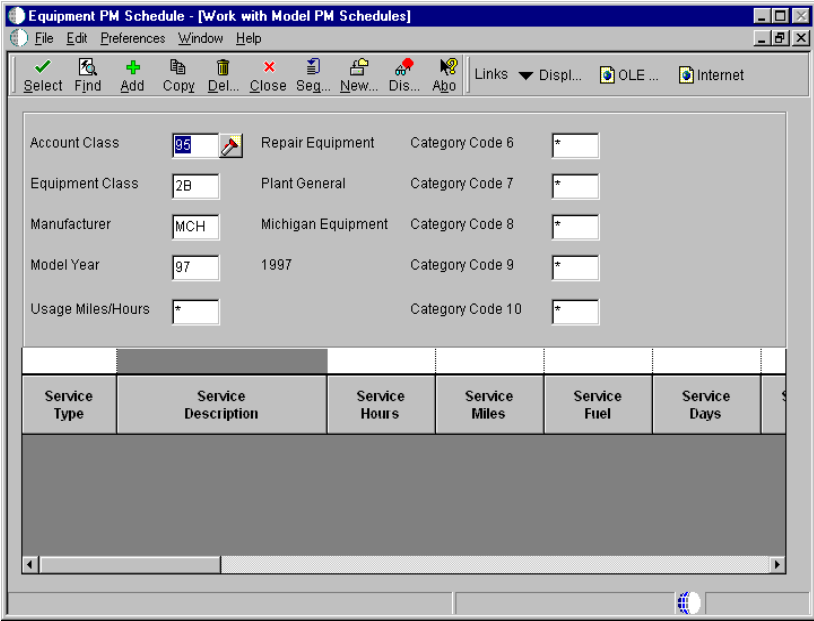
Creating a Model PM Schedule

You create model PM schedules when you have multiple pieces of similar equipment for which a single PM schedule can apply. You create model PM schedules based on combinations of equipment category codes. After you apply a model PM schedule to a piece of equipment, you can modify the schedule to satisfy the particular requirements of the equipment without affecting the model.

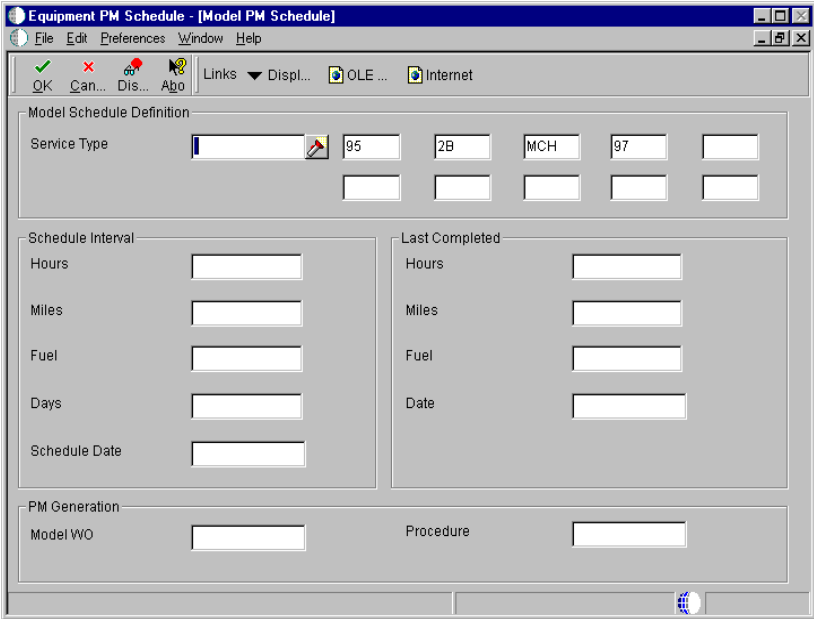
► To create a model PM schedule

From the Equipment/Plant Maintenance menu (G1315), choose Equipment PM Schedule.

- 1. On Work With Equipment PM Schedule, choose Model PM from the Form menu.



- 2. On Work with Model PM Schedules, click Add.



3. On Model PM Schedule, complete the following field:
 - Service Type
4. Complete any combination of the equipment category code fields for which you want the model to apply.
5. Complete the following optional field:
 - Schedule Date
6. If you did not enter a schedule date, complete any of the following Schedule Interval fields:
 - Hours
 - Miles
 - Fuel
 - Days

You can also enter a schedule interval based on days and schedule date.

7. If you use model work orders, complete the following field:
 - Model WO
8. Complete any of the following optional fields and click OK:
 - Last Completed Hours
 - Last Completed Miles
 - Last Completed Fuel
 - Last Completed Date
 - Procedure

Work With Model PM Schedules appears. You can click Find to display the service type that you just added, or click Add to enter additional service types for the same model PM schedule.

Applying a Model PM Schedule to a Piece of Equipment

After you create a model PM schedule, you can apply it to any piece of equipment based on the category codes that you set up. After you apply a model PM schedule

to a piece of equipment, you can modify the PM schedule to satisfy any unique maintenance requirements of the equipment. For example, you can delete a service type from the equipment's PM schedule.

► To apply a model PM schedule to a piece of equipment

From the Equipment/Plant Maintenance menu (G1315), choose Equipment PM Schedule.

1. On Work With Equipment PM Schedule, complete the following field and click Find:

- Equipment Number

2. Choose Model PM from the Form menu.

Work with Model PM Schedules appears. Default values appear in the category code fields, based on the category codes assigned to the piece of equipment. All service types that you set up for the combination of category codes appear in the detail area of the form.

3. On Work with Model PM Schedules, click Copy, and then click Close. Work With Equipment PM Schedule reappears.

4. On Work With Equipment PM Schedule, click Find to verify that the system copied the service types from the model to the Equipment PM Schedule.

All service types from the model PM schedule now appear in the detail area of the form. You can modify any service type, add service types, or delete those that are not applicable to the piece of equipment.

5. To modify a service type, choose its record and then click Select.
6. On Equipment PM Schedule, revise any of the input-capable fields as appropriate.

Processing Options for Equipment PM Schedule (P1207)

Default

Enter a '1' to calculate the estimated occurrences based on one year of PM History, a '2' based on two years of PM History and a '3' based on inception-to-date PM History. Leave blank (default) to not calculate the occurrences.

Equipment-Plant Maintenance

1. Estimated Occurrences _____

Process

1. Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

Select Product _____

Working with Meter Readings

Work with meter readings when you need to enter and update meter information about your equipment. You use meter readings to monitor equipment use and trigger maintenance tasks based on accumulated statistical units, such as miles. For example, you can schedule maintenance for a machine or piece of equipment, based on mileage, elapsed time (hours), fuel consumption, cycles, or tonnage. You can define as many accounts for statistical units as you need. However, you can use only three types of statistical units to trigger maintenance. You determine the statistical units that you want to use.

Working with meter readings consists of the following tasks:

- Entering meter readings
- Working with meter estimates
- Reviewing meter readings

Entering Meter Readings

You can enter and update meter readings for individual pieces of equipment or for multiple pieces of similar equipment. The table below summarizes the differences:

Individual pieces of equipment	Enter and update meter readings for individual pieces of equipment when you need to record equipment usage on a piece-by-piece basis
---------------------------------------	--

Multiple pieces of equipment

Enter and update meter readings for multiple pieces of equipment if you are doing the following:

- Updating meter readings for all equipment with the same use, such as multiple pieces of production equipment that work the same number of hours on a given day
- Entering current meter readings for multiple pieces of identical new equipment

You use selection criteria to specify the pieces of equipment for which the system updates meter information.

In addition, you can update equipment records to indicate that a meter was replaced due to damage. You can also indicate when a meter rolls over. A meter rollover is the point at which a meter has reached its maximum value and reverted to a zero reading.

Entering meter readings consists of the following tasks:

- Entering meter readings for a piece of equipment
- Entering meter replacement information
- Entering meter rollover information
- Enter metering readings for multiple pieces of equipment

Before You Begin

Verify that the following AAIs are set up:

- AT00
- FMA
- FMB
- FMC
- FMD
- FME

See Also

- *Understanding AAIs for Equipment/Plant Maintenance*

► To enter meter readings for a piece of equipment

From the Equipment Information menu (G1311), choose Meter Readings.

1. On Meter Readings, complete any combination of the following fields to locate meter reading information for a piece of equipment:
 - Skip to Description
 - Thru Date/Period
 - Resp. Business Unit
 - Location
 - Skip to Equipment
2. To further limit your search to specific equipment, click the Equipment tab and complete any of the following fields:
 - Equipment Status
 - Company
 - Inventory Number
3. Turn on the following optional fields:
 - Display Children
 - Display Disposed
4. Click the Codes tab and complete any of the following fields:
 - Major Accounting Class
 - Major Equipment Class
 - Manufacturer
 - Model Year
 - Usage Miles or Hours
 - Category Code 6

5. Click the Codes 2 tab, complete any of the following fields, and then click Find:
 - Category Code 7
 - Category Code 8
 - Category Code 9
 - Rate Group
6. Complete only one of the following meter reading fields in the detail area for each type of meter for which you want to enter information:
 - Amount - Current Balance
 - Amount - Net Increase
7. Complete the following optional field for each meter:
 - Amount - Beginning Meter
8. Complete the following optional fields and then click OK:
 - Subledger - G/L
 - Subledger Type

Related Tasks

Updating original readings

You enter a value in the Original Reading field only once. After a piece of equipment accumulates units, you should never have to change the original readings. When you enter meter information for a piece of used equipment, enter the actual meter reading shown on the face of the meter at the time that you place the equipment in service. The system updates the original reading when the meter rolls over or when you perform a meter replacement.

Calculating the lifetime meter reading

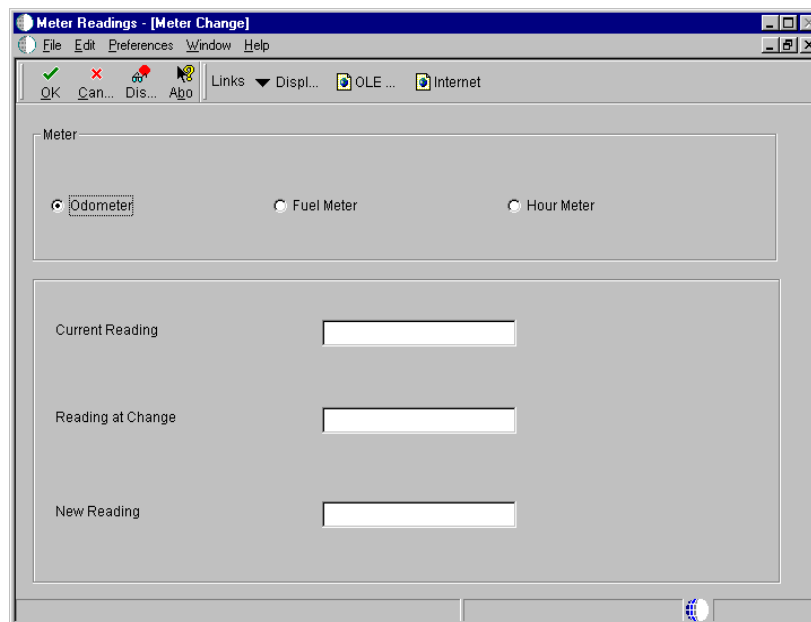
The system uses lifetime meter readings in general ledger transactions and to determine when maintenance is due. To calculate the lifetime meter reading for a piece of equipment, subtract the original reading from the current reading.

For example, the current reading is 5,000 hours and the original reading is 2,000 hours. The lifetime meter reading is 3,000 hours.

► To enter meter replacement information

From the Equipment Information menu (G1311), choose Meter Readings.

1. On Meter Readings, complete the steps to locate meter reading information for a piece of equipment.
2. Choose the record for the equipment, then choose Meter Change from the Row menu.



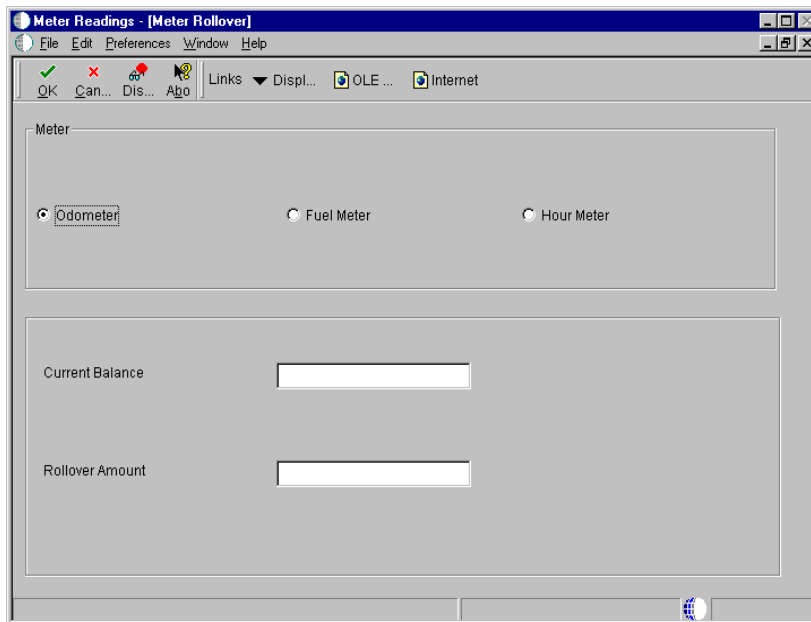
3. On Meter Change, click one of the following options to specify the meter that you are replacing:
 - Odometer

- Fuel Meter
 - Hour Meter
4. Complete the following fields and click OK:
 - Current Reading
 - Reading at Change
 - New Reading

► To enter meter rollover information

From the Equipment Information menu (G1311), choose Meter Readings.

1. On Meter Readings, complete the steps to locate a piece of equipment.
2. Choose the record for the equipment, then choose Rollover from the Row menu.



3. On Meter Rollover, click one of the following options to specify the meter for which you are entering a rollover value:
 - Odometer
 - Fuel Meter

- Hour Meter
4. Complete the following fields and click OK:
 - Current Balance
 - Rollover Amount

► To enter meter readings for multiple pieces of equipment

From the Equipment Information menu (G1311), choose Meter Readings.

1. On Meter Readings, complete any combination of the following fields to locate a group of equipment:
 - Skip to Description
 - Thru Date/Period
 - Resp. Business Unit
 - Location
2. To further limit your search to specific equipment, click the Equipment tab and complete any of the following fields:
 - Equipment Status
 - Company
 - Inventory Number
 - Display Children
 - Display Disposed
3. Click the Codes tab and complete any of the following fields:
 - Major Accounting Class
 - Major Equipment Class
 - Manufacturer
 - Model Year

- Usage Miles or Hours
 - Category Code 6
4. Click the Codes 2 tab and complete any of the following fields and then click Find:
- Category Code 7
 - Category Code 8
 - Category Code 9
 - Rate Group
5. Choose Global Update from the Form menu.

The screenshot shows a software window titled "Meter Readings - [Global Meter Update]". The window has a menu bar with "File", "Edit", "Preferences", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", "Algo", "Links", "Displ...", "OLE...", and "Internet". The main area is titled "Net Increase" and contains three input fields: "Fuel Meter", "Odometer", and "Hour Meter". Below these is a "Subledger" section with two input fields. A status bar at the bottom right shows a globe icon.

6. On Global Meter Update, complete any of the following fields and click OK:
- Amount - Net Increase
 - Amount - Net Increase
 - Amount - Net Increase
 - Subledger - G/L

- Subledger Type

The system updates meter readings for all equipment that matches the selection criteria that you specified.

Processing Options for Meter Readings (P12120)

Process

Enter a '1' to automatically update current meters of "child" assets when updating the parent's current meter. Leave blank to not update the child's current meter reading.

1. Update child's current meter _____

Enter a '1' to update the original meter of children when updating the original meter of the parent. The original meter of the child will be affected only if BOTH the parent and the child have NO original meter readings. Leave blank to cause the parent's original reading NEVER to affect the child's original reading.

2. Update child's original meter _____

Versions

Enter the version of the Update PM Schedule (R12807) to submit when updating meters. Leave blank to update meters without updating PM Schedules.

1. Update PM Schedule version _____

Edits

Enter the percent difference in meter readings to signal a tolerance level warning. Leave blank to not check for tolerance levels.

1. Tolerance Level _____

Working with Meter Estimates

You can use meter estimates to update meter readings for equipment with usage that is consistent and predictable. For example, assume that you have a production line that includes multiple pieces of equipment. The production line runs 16 hours each day. You can set up meter estimates that indicate 16 hours per day for each piece of equipment on the line. You can then update the meter readings each day or set up your system to automatically update the meter readings at the end of each day.

Working with meter estimates consists of the following tasks:

- Setting up meter estimates
- Updating meter readings based on estimates

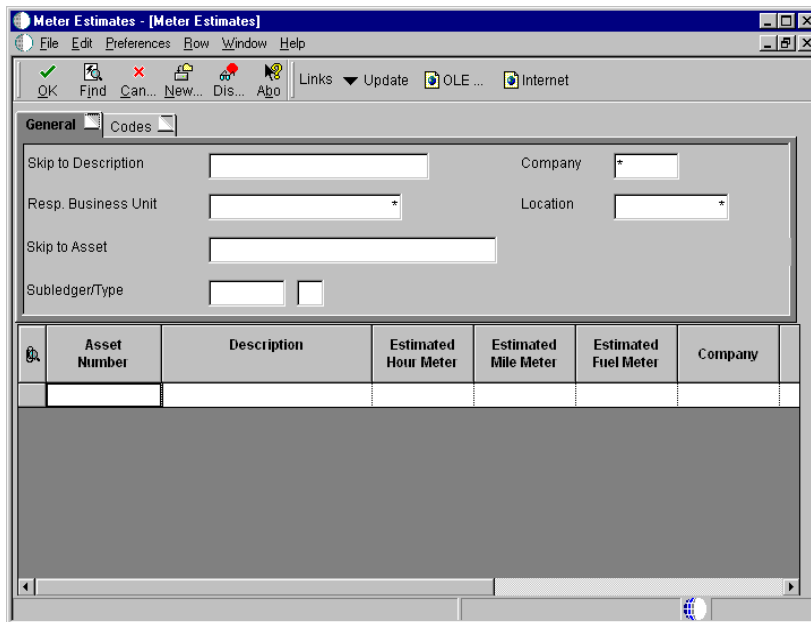
Setting Up Meter Estimates

You must set up meter estimates for each piece of equipment for which you want to update meters according to estimated meter amounts.

► To set up meter estimates

From the Equipment Information menu (G1311), choose Meter Estimates.

1. On Meter Estimates, click the General tab.

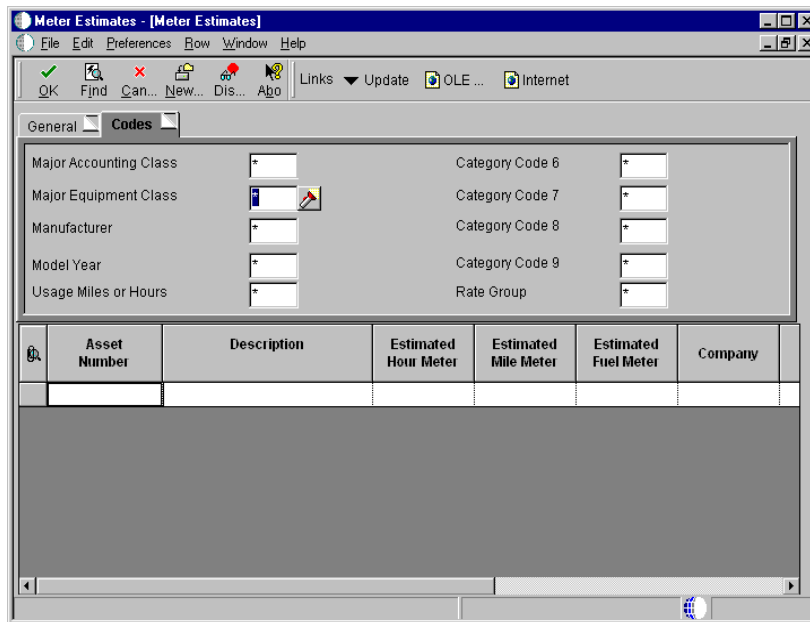


The screenshot shows a software window titled "Meter Estimates - [Meter Estimates]". The window has a menu bar with "File", "Edit", "Preferences", "Row", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Find", "Cancel", "New...", "Dis...", "Add", "Links", "Update", "OLE...", and "Internet". The main area is divided into two tabs: "General" (selected) and "Codes". The "General" tab contains several input fields: "Skip to Description" (text box), "Company" (dropdown menu), "Resp. Business Unit" (dropdown menu), "Location" (dropdown menu), "Skip to Asset" (text box), and "SubledgerType" (checkbox). Below these fields is a table with the following columns: "Asset Number", "Description", "Estimated Hour Meter", "Estimated Mile Meter", "Estimated Fuel Meter", and "Company". The table is currently empty.

2. Limit the equipment for which the meter estimates apply by completing any combination of the following fields:
 - Skip to Description
 - Company
 - Resp. Business Unit

- Location
- Skip to Asset
- Subledger/Type

3. Click the Codes tab.



4. To further limit the equipment that the system displays, complete any of the Category Code fields and then click Find.
5. Complete any of the following fields for each piece of equipment for which you want to apply an estimated meter reading, and then click OK:
 - Estimated Hour Meter
 - Estimated Mile Meter
 - Estimated Fuel Meter

Related Tasks

Updating meter estimates

A form exit from Meter Estimates allows you to update meter estimates. When you choose Update Estimates from the Form menu, the system runs version XJDE0001 of the Update Meter Estimates program.

Updating Meter Readings Based on Estimates

From the Equipment Information menu (G1311), choose Update Meter Estimates.

After you set up meter estimates for equipment, you update the meter readings at regular intervals. The system uses the estimates that you enter on Meter Estimates as the basis for updating meters.

You can use processing options to specify whether the system updates the meters of components or only parent equipment, and whether to print a report of the updated equipment. Do not select the option to update the meter reading of component assets if you have set data selections to update meters for pieces equipment that are components of other equipment.

Recommendations

Automatically updating meter estimates To ensure that the system regularly updates the meter readings for equipment for which you have set up meter estimates, run Update Meter Estimates as part of your unattended operations.

See *Scheduling Jobs* in the *System Administration Guide* for more information about unattended operations.

Processing Options for Update Meter Estimates (R13806)

Pro Option

1. Choose one of the following statistical accounts to update: _____
'1' = Fuel Meter (FMA)
'2' = Mileage Meter (FMB).
' ' = Hour Meter (AT00) (default).

2. Enter a '1' to automatically update the meter reading of "component" assets when updating the "parent" asset. _____

Print

Enter a '1' to print a report of the assets updated. Leave blank to print no report. _____

G/L Date

Enter the G/L date to be used when updating the Account Ledger table (F0911) and the Asset Balances _____

table (F1202).

What You Should Know About Processing Options

Updating child equipment

Do not select this option if you have set data selections to update meters for pieces of equipment that are components of other equipment.

Reviewing Meter Readings

You can review the meter readings for any piece of equipment. You can also specify the time period for which you want to review meter readings. After you review the meter readings for a piece of equipment, you can access Meter Readings to make revisions to the equipment's individual meter readings.

See Also

- *Entering Meter Readings*

► To review meter readings

From the Equipment Information menu (G1311), choose Meter Inquiry.

1. On Meter Reading Inquiry, complete the following fields:
 - Equipment Number
 - Date From
2. Complete the following optional fields and click Find:
 - Date Thru
 - Subledger
 - Subledger Type
3. To revise the meter readings, choose Meter Readings from the Form menu.

The system displays the Meter Readings form, from which you can revise meter readings for any piece of equipment.

Updating PM Schedule Information

From the Equipment Plant Maintenance menu (G1315), choose Update PM Schedule Status.

Update PM schedule information to change the status of PMs. For example, you can specify that the system update all PMs from status 01 (Maintenance Task Defined) to status 50 (Maintenance Due) for all pieces of equipment that are due for scheduled maintenance based on their service intervals. You can also change the status of a PM before the equipment reaches its scheduled maintenance interval to allow time for scheduling parts and labor resources. In addition, you can specify which PMs you need to update, as well as the date that the update becomes effective. Maintenance rules determine the maintenance status assigned to each PM service type when you update PM schedule information.

Update PM Schedule Status is a batch program. When you choose Update PM Schedule Status, the system displays Processing Options Revisions before submitting the job for processing. When you run this program, the system automatically does the following:

- Updates the current miles, hours, and fuel consumption readings
- Calculates the current maintenance interval based on the last maintenance performed
- Changes the status for each PM service type, if necessary
- Generates PM work orders, if necessary

Note: Depending on whether you specified multiple work orders on the PM schedule for a service type that is due to be performed, the system might create a new PM cycle, regardless of the status of the maintenance task. If you do not want the system to recycle the PM for the service type until previously scheduled maintenance has been completed, you must leave the Multiple Work Order field blank when you create or revise the PM schedule. Other values for this field allow the system to reschedule the maintenance task and accrue multiple work orders.

Before You Begin

- Create model work orders. See *Creating a Model Work Order for a PM Service Type*.

Technical Considerations

Updating PMs for maintenance loops

When you update a PM for a maintenance loop, the system creates a PM for each piece of equipment in the loop, but creates only one work order.

Equipment under warranty

When you change or update a warranty PM service type to complete, the system does not create a new PM cycle for that service type and piece of equipment.

See Also

- *Creating an Equipment PM Schedule* for more information about equipment under warranty and multiple work orders
- *Setting Up Maintenance Rules*

Processing Options: Update PM Schedule Status (R12807)

Defaults Tab

Use these processing options to specify the PM status ranges and dates that the system uses to determine whether maintenance is due.

1. Through Date

Use this processing option to specify the PM status range that the system uses to determine whether maintenance is due. If left blank, the system uses the default value for Data Dictionary Item "MSTS".

2. From Status

Use this processing option to specify the PM status range that the system uses to determine whether maintenance is due. If left blank, the system uses the default value for Data Dictionary Item "MSTS".

3. To Status

Use this processing option to specify the PM status range that the system uses to determine whether maintenance is due. If left blank, the system uses the default value for Data Dictionary Item "MSTS".

4. Status Change To

Use this processing option to specify the status to which the PMs change. If you leave this option blank, the system uses the status from the maintenance rules.

Print Tab

Use these processing options to specify whether you want to print the PM Schedule Status report and how you want the asset number to appear on the report.

1. Print Report

Use this processing option to specify whether the system prints the PM Schedule Status report. Valid values are:

1 The program prints the report.

Blank The program does not print the report.

2. Print Asset Number

Use this processing option to specify how you want the equipment number to appear on the PM Schedule Status report. Valid values are:

1 Equipment Number (default)

2 Unit Number

3 Serial Number

Edit Tab

Use these processing options to specify work order options, such as whether the system creates work orders. You must associate a model work order with a PM to use this feature. When the system generates a work order, it does the following:

- Uses the service type description on the PM Schedule or the description from the model work order for the work order description, depending on how you set up the Maintenance Rules.
- Enters the parent number of the equipment in the Cross-Reference field on the work order. You can then search for the work order using the parent/component relationship. You can use a processing option to specify whether the system selects the equipment's immediate parent, its top level component, or the value from the model work order for the cross-reference value.
- Uses the priority from the PM service type if you have not defined the priority on the model work order.

You can specify that the system update the PM schedule status without generating work orders and rerun the program later, specifying the system to generate work orders without updating the PMs. You can also use these processing options to specify how the system calculates estimated occurrences of a PM.

Work Order Options

1. Create Work Order

Use the processing option to specify whether the system creates work orders for qualifying maintenance items that have model work order numbers. Valid values are:

1 Create work orders for qualifying maintenance items.

Blank Do not create work orders.

2. Work Order Start Date

Use this processing option to specify a specific date.

3. Default Date

Use this processing option to specify a start date for system-generated work orders. You can enter a start date or enter a 1 to use the default system date.

4. Project Date

Use this processing option to specify whether the system projects the PM and Work Order start date. Valid values are:

1 Project the start date.

Blank Do not project the start date.

5. Work Order Cross Reference

Use this processing option to select the value for the work order cross-reference. Valid values are:

Blank Equipment's immediate parent

1 Equipment's top-level parent

2 Value from model work order

6. Work Center

Use this processing option to specify a work center for which the system only generates work orders for service types, the model work orders of which include the specified work center in their routing instructions. When you specify a work center, the program does not generate work orders for service types that have come due, but whose model work orders do not include the specified work center in their routing instructions. If you leave this field blank, the system does not screen service types based on work center.

7. Update Last Complete

Use this processing option to update the "last completed" statistics for all selected records as of the last completed date. Valid values are:

1 Update statistics using the last completed date

Blank Do not update statistics

NOTE: If you choose this option, you should use data selection to limit the records that the system updates to only noncomplete PMs. This avoids excessive processing time.

Calculation Options

8. Estimated Occurrences

Use this processing option to specify how the system calculates estimated occurrences of a PM. Valid values are:

- 1 Calculate occurrences based on one year of PM history.
- 2 Calculate occurrences based on two years of PM history.
- 3 Calculate occurrences based on PM history from inception to date.
- 4 Do not calculate estimated occurrences (default).

CSMS Tab

Use these processing options to define the primary product associated with this version of the program.

Defines the primary product associated with this version of the program.

When creating a service work order, default the owner from the Installed Base record to the customer on assigned service work order.

When creating a service work order, default the site from the Installed Base record to the site on the assigned service work order.

Changing the Status of PMs to Complete

You must notify the system when you have completed or canceled a PM for a piece of equipment. You notify the system that you have completed or canceled the PM for selected equipment by changing the status of a PM to complete or canceled. When you change the status of a PM to complete or canceled, the system does the following:

- Maintains a record of the PM with a status of 99 (complete), or 98 (canceled)
- Generates a new PM with a status of 01 and begins a new PM cycle (depending on the value of the multiple work order flag on the PM schedule)

Note: The system does not begin a new PM cycle for warranty service types or maintenance loops.

You can change the status of PMs by individual piece of equipment or globally by using search criteria to select PMs for a group of equipment.

You can use processing options to specify whether you want the system to display actual meter readings or lifetime maintenance amounts on Preventive Maintenance Schedule. The actual meter reading is the number that appears on the physical meter located on a piece of equipment. The lifetime maintenance amount is the total lifetime usage of the equipment. In cases such as meter changes or meter rollovers, the lifetime maintenance amount is not the amount shown on the meter. If you select actual meter reading for this processing option, you must enter the meter reading as it appears on the actual meter. The system calculates the lifetime maintenance amount from this amount.

When you enter a value in the Status field in the processing options, the system attempts to update the work order status with the PM status, if the value is valid. If the value is not valid, no update occurs to the work order status.

Whether you choose to display actual meter readings or lifetime maintenance amounts, the system always uses lifetime maintenance amounts to calculate service intervals.

See Also

- *Creating an Equipment PM Schedule* for more information about warranty service types

► To change the status of PMs to complete

From the Equipment/Plant Maintenance menu (G1315), choose PM Backlog.

1. On PM Backlog, complete any combination of the following fields to choose the group of PMs that you want to update:
 - Assigned WO
 - Service Type
 - Equipment Number
2. To further limit the PMs that you want to update, click the PM Schedule tab and complete any of the following from/through fields:
 - Maintenance Status
You can quickly view PM history by entering 99 in this field.
 - % of Schedule Due
 - Downtime Required
3. Click the Dates tab and complete any of the following from/through fields:
 - Schedule Date
 - Completed Date
4. To further limit the PMs that you want to update, click the Codes tab and complete any of the following fields:
 - PM Category Code 1
 - PM Category Code 2
5. Click the Equipment tab and complete any of the equipment category code fields.
Category codes 5 - 10 are on the Equipment 2 tab.

6. Complete the following optional field:
 - Location
7. Click Find.
8. To update the status of individual PMs, complete the following fields in the detail area of the form for each PM:
 - PM Status
 - Date - Completed Date

Enter a completion date only if you are changing the status of the PM to complete (99) or canceling the PM (98).

9. Complete the following fields as appropriate:
 - Completed Miles
 - Consumed Fuel
 - Completed Hours

The system does not update statistical units in the Asset Account Balances table (F1202). To update units in this table, you must use the Meter Readings program (P12120). For more information, see *Working with Meter Readings*.

10. Complete the following optional fields and click OK:
 - Name - Remark
 - Work Order Number Assigned
 - Address Number - Assigned To

Field	Explanation
Assigned WO	The Work Order Number related to a particular Equipment Maintenance line item. The system assigns this number from next numbers.
Service Type	A user defined code (system 12, type ST) that describes the preventive maintenance service to be performed. Examples of codes include CLUTCH for adjust clutch, OIL for change oil, 10H for 10 hour service, and so forth.

Field	Explanation
Maintenance Status	<p>A user defined code (12/MS) that indicates the maintenance status of a piece of equipment, such as 50 for maintenance due or 60 for waiting for parts.</p> <p>Note: Status code 98 is reserved for canceled maintenance. Status code 99 is reserved for completed maintenance. Status code 01, the default, is reserved for initial maintenance setup.</p> <p>.....<i>Form-specific information</i>.....</p> <p>If you enter a status of 99, the system requires you to enter a date in the Completed Date field.</p>
% of Schedule Due	<p>A percentage measure that indicates how close a piece of equipment is to requiring maintenance. This percentage is based on the greater of the actual date, miles, hours, or fuel consumption compared to the threshold date, miles, hours, or fuel consumption. A percentage of 090 means that the piece of equipment is 10% away from requiring maintenance. A percentage greater than 100 means that maintenance is past due.</p>

Related Tasks

Globally updating the PM status

You can globally update multiple PMs whose status, completion date, and employee responsible for the PM work order are the same. After you have narrowed your search to a specific group of PMs, click the Global Updates tab, enter values in the following fields, and then click OK:

- PM Status
- Completion Date
- Employee

The system updates all selected PMs. In addition, when you update the Employee field, the system updates the Assigned To field on the PM work order.

Processing Options for Preventive Maintenance Scheduling (P12071)

Defaults

Enter the status range to default for selection.

1. Maintenance Status - From _____

2. Maintenance Status - Thru _____

Display

Enter a '1' to display current meter readings. Leave blank to display lifetime maintenance amounts.

1. Meter Readings Display _____

Process

Enter a '1' to update the completion date on the assigned work order.

1. Completion Date _____

Enter a '1' to update the status on the assigned work order.

2. Status _____

Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

3. Select Product _____

Versions _____

Enter version of PM Update to call.
If left blank, version XJDE0001 will be used

What You Should Know About Processing Options

Updating assigned work order status

When you enter a value in the Status option in this processing option, the system attempts to update the work order status with the PM status, if the value is valid. If the value is not valid, no update occurs to the work order status.

Work Order Life Cycle

Work Order Life Cycle

Use work orders to manage the work flow of your maintenance tasks and projects. You can manage all aspects of a maintenance task or project, including the following information:

- Creating work orders for preventive and corrective maintenance
- Committing inventory to a work order
- Scheduling multiple tasks and crafts, such as mechanical, electrical, and so on, to a work order
- Tracking the progress of a work order by status
- Tracking work order costs, such as materials, labor, and so on
- Recording unlimited detailed information about a work order
- Completing and closing a work order

In addition to these features, you can set up a work order approval process within the Enterprise Workflow system. J.D. Edwards provides a predefined work order approval process in the Enterprise Workflow Management system that you can modify to suit your business needs.

The steps through which a work order must pass in order to accurately communicate the progress of the maintenance tasks it represents make up the life cycle of the work order. The work order life cycle applies to work orders for preventive maintenance and corrective maintenance.

The work order life cycle consists of the following tasks:

- Understanding workflow management
- Creating corrective work orders
- Working with work orders

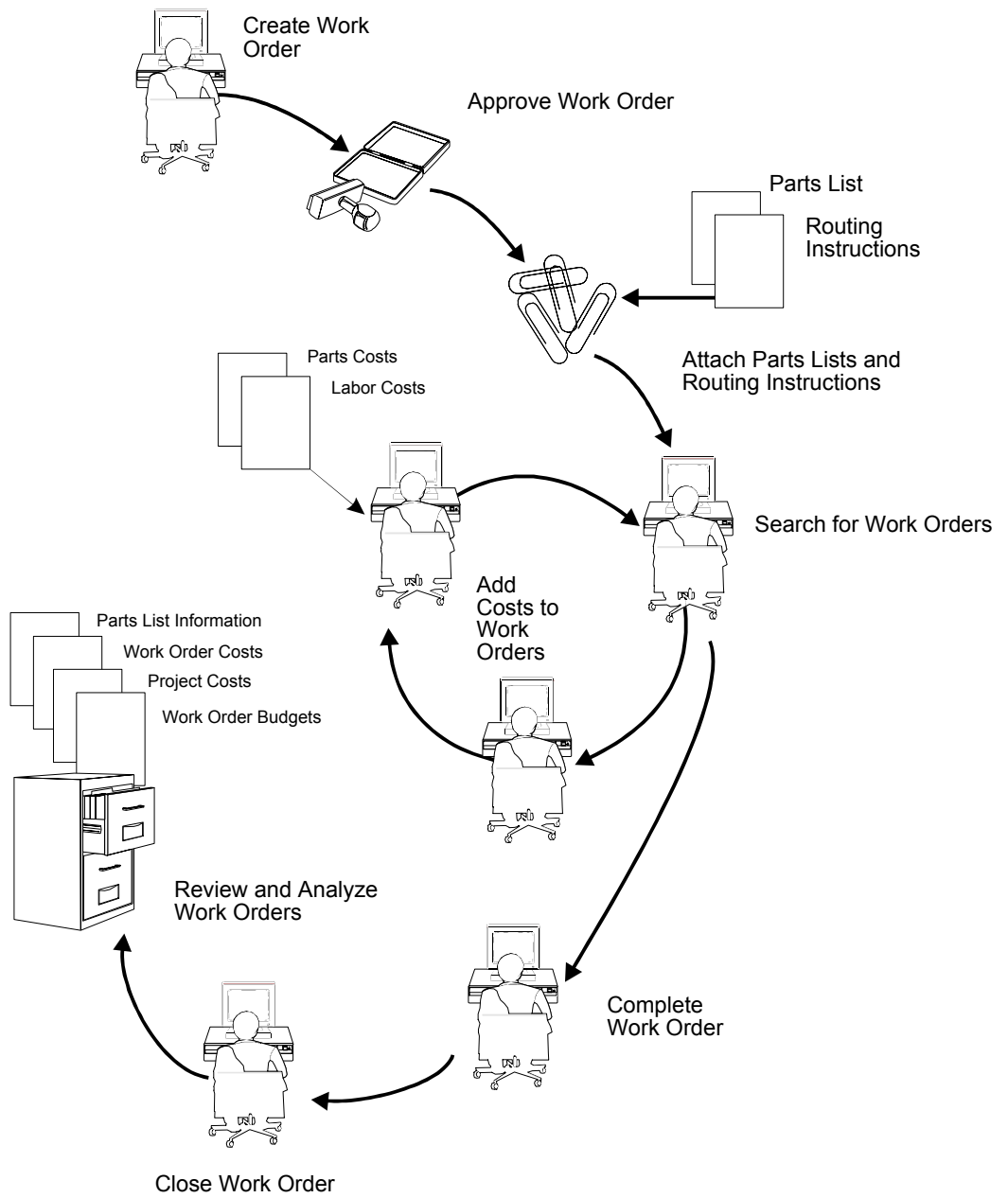
Features of the Work Order Life Cycle

Paperless processing	You can save paper when you manage your maintenance tasks and projects using work orders. You enter work orders online and perform most of the subsequent processing without relying on printed documents.
Work order creation	You can create a single work order or a group of work orders quickly and easily, with minimal pre-planning. You can set processing options and use parent work orders to direct the system to enter default values for a variety of work order information when you create work orders. When you use processing options and parent work orders, you save time and reduce the possibility of errors.
Work order search	<p>You can search for work orders using a variety of information. For example, you can limit your search for a work order by using any combination of the following information:</p> <ul style="list-style-type: none">• The job or business unit• The address book numbers of the originator, customer, manager, or supervisor• The life cycle status of a work order• Any combination of user defined category codes• The type of work order• The priority given to a work order• Start and completion dates
Simple budgeting and estimate controls	You can track the simple estimate and budget requirements of a work order. For example, you can use the Estimated Hours and Amounts fields on the Amounts tab for the work order to enter and update budget information. You can track budget information from Backlog Management and Cost Accounting forms. In addition, you can use a variety of reports to compare estimates with actual information.

- Multiple control dates** You can track each work order according to control dates that you define, such as the following:
- The transaction date (the date that a work order is entered into the system)
 - The start date
 - The planned completion date
 - The actual completion date
 - The requested date
- Levels of responsibility** You can assign several levels of responsibility to a work order, such as the following:
- The job or business unit to which the work order is charged
 - The originator of the work order
 - The manager
 - The supervisor
- You can review all the work orders assigned to a particular person or location.
- Work order description** You can describe work orders briefly using two- or three-word descriptions, or you can provide unlimited detail. You can also enter different types of information in the record types you assign to a work order, such as the following:
- Expected actions
 - Actual operations performed
 - Tools required
 - Procedures for completing the work
- You define the record types that are appropriate to your organization.

Work Order Process Flow

The following graphic illustrates the flow of a work order through a typical work order life cycle:



Understanding Workflow Management

Workflow Management offers a powerful means of automating various components of the work order life cycle across your entire enterprise. Documents, information, and tasks automatically pass from one activity to the next. The activities are based on a set of procedural rules and triggering events, and require minimal user involvement. For example, you can use workflow to do the following:

- Route a work order for approval
- Commit inventory to a work order
- Run the capacity plan for a work order
- Send messages to appropriate personnel regarding the progress of a work order

In addition, Workflow Management enables you to do the following:

- Define as many workflow processes as your business needs require
- Attach any workflow process to any given event within an application
- Execute conditional processing, which is logic contingent upon supplied criteria, such as currency amount, status, and priority

Understanding workflow management consists of the following topics:

- Terms and concepts
- Understanding workflow management setup
- Example: Work order approval process

Terms and Concepts

You do not need a comprehensive knowledge of the Enterprise Workflow Management system to set up and use Workflow Management in your maintenance environment, but you must be familiar with the following terms and concepts:

Routes

Routes define the path along which the Workflow system moves a work order. Depending on your needs, a route can be relatively simple and sequential, or increasingly complex with joins or splits, parallel routing, iterative routing, (such as a loop) and so on.

Process rules

Process rules define what information is to be routed and to whom. For example, you can set up rules that define conditions that a work order must meet before the Workflow Management system advances the order to the next activity in the process, as well as rules that govern who receives an approval request. Workflow Management uses two types of process rules, as follows:

- Activity conditions, which determine the next activity, based on information, such as work order status, that you set up in an attribute data structure
- Recipient rules, which determine the recipient to whom the system routes messages

As with routes, you determine the complexity of rules according to your needs. For example, you can set up logic by which a work order can only progress to the next step if predefined threshold values have been met.

Workflow processes

Workflow processes refer to processes that you have set up to be handled through scripted workflow. For each process that you define, you set up criteria that indicates the start and end of the process. You also determine what the workflow activities involved in the process are, such as sending an approval message, calling an application such as Capacity Plan Generation, or launching a sub-process. In addition, for each process, you determine all of the relevant data that the system requires in order to complete the process. Finally, you determine the path, such as an approval route, that a process takes, and whether the process is contingent upon some conditional value, such as work order status, amount, and date. Activity conditions determine the next workflow activity in the process.

You can set up a hierarchy of processes, nesting sub-processes so that one process calls another. This is especially useful when you need to reuse components within other processes. For example, the initial workflow process for work orders determines the document type of the work order and calls other processes, such as the process to determine the work order type, based on the document type.

For more information about Workflow processes, see *Understanding Workflow Processes*.

Workflow activities

Workflow activities refer to the specific actions within a given process, such as sending a request for approval, committing inventory, or running a capacity plan. In addition to the Start activity, which every process must include, you can attach five other types of activities to a process, as follows:

- Function
- Interactive application
- Batch application
- Run executable
- Message
- Halt process
- Process

For a more detailed description of each type of activity, see *Understanding Workflow Activities*.

Primary data structures The primary data structure contains the data that makes an instance of a process unique from another instance. In Equipment/Plant Maintenance, where workflow processes are set up primarily for events in the work order life cycle, the primary data structure typically consists of the work order number.

J.D. Edwards strongly recommends that you do not use multiple data items within a process key data structure. To do so might increase the possibility of system error.

See *Setting Up Workflow Data Structures* in the *Enterprise Workflow Management Guide* for a complete explanation of primary data structures.

Attribute data structures Attribute data structures contain all pieces of data that a given process and any activity within the process need to complete the flow. Workflow Management uses the attribute data structure to communicate between activities within a process.

For a comprehensive overview of Workflow Management, see the *Enterprise Workflow Management Guide*.

Understanding Workflow Management Setup

Understanding workflow management setup consists of the following topics:

- Understanding workflow processes
- Understanding workflow activities
- Understanding process rules

For any given setup task, J.D. Edwards provides demonstration data. As with any J.D. Edwards system, you can use the data provided or customize it to meet your needs.

Understanding Workflow Processes

A workflow process contains activities and related sub-processes specific to a particular function that you want to automate through Workflow Management. J.D. Edwards provides Equipment/Plant Maintenance with numerous predefined workflow processes specific to the work order life cycle. You can modify these

processes, add new ones, or use them as they are. Typically, you will need to customize workflow processes to meet the needs of your organization. An example of a predefined process for Equipment/Plant Maintenance is the process for Work Order Approval.

You can have multiple versions of a workflow process. However, the system allows only one version of a process to be activated at a time. You specify whether a version is activated by choosing the version on Work With Processes and then choosing either Activate or Deactivate from the Row menu.

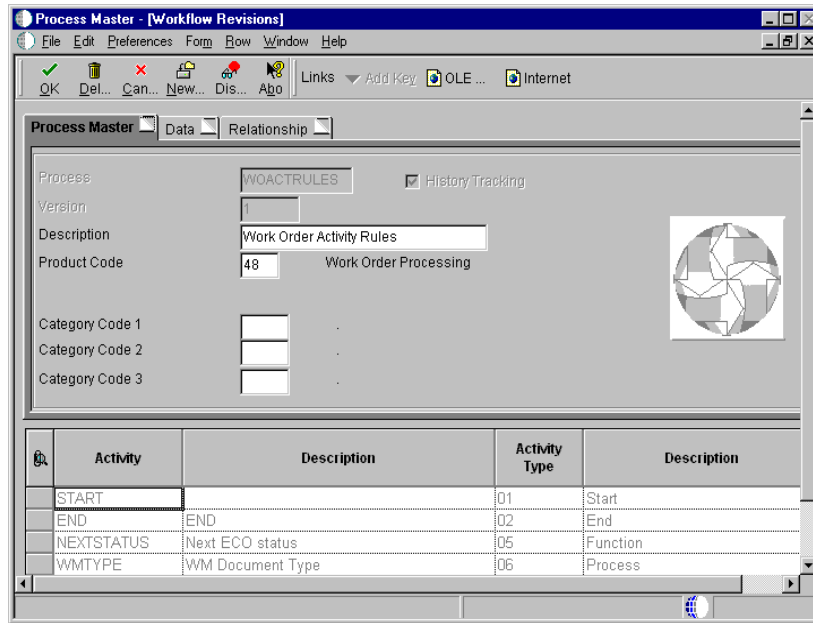
Example: Work With Processes Form

The screenshot shows a software window titled "Process Master - [Work With Processes]". The window contains a table with the following data:

Process	Version	Description	Version Status	Product Code	Category Code 1
WMTYPE	1	WM Document Type	Y	48	
WMTYPE6	1	WM Order Type 6	Y	48	
WOACTRULES	1	Work Order Activity Rules	Y	48	
WOTYPE	1	WO Document Type	Y	48	
WOTYPE1	1	WO Type Code 1	Y	48	
WOTYPE3	1	WO Type Code 3	Y	48	
WOTYPE6	1	WO Type Code 6	Y	48	
WO1APP1	1	WO Type 1 Approval Type 1	Y	48	
WO1APP2	1	WO Type 1 Approval Type 2	N	48	

You can use the Work With Processes form to search for predefined processes or as the entry point to add new processes.

Example: Workflow Revisions Form, Process Master Tab



You can use the Workflow Revisions form to add new processes.

See Also

- *Creating a Workflow Process* in the *Enterprise Workflow Management Guide*

Understanding Workflow Activities

After you have set up workflow processes, you can add an unlimited number of activities to a process, choosing from the following types of predefined activities:

Function This activity attaches a function for special logic processing, including any business functions you write to perform a special function or operation.

Interactive application This activity starts an interactive application. You can specify any interactive application to be called. You also define the parameters that are passed to the called application.

Batch application This activity starts a batch application. You can launch any report or batch process at this point.

Run executable	This activity launches an executable program that you specify, such as a word processing application or a spreadsheet application.
Message	This activity generates a message. You define the messages in the Data Dictionary and set up variables regarding the delivery of the messages within Workflow Management. For example, you can specify that particular messages be sent to a distribution list, a specific person, or a specific mailbox.
Halt process	This activity stops the process for a period of time that you specify, after which the process resumes. If you do not specify a time, you must restart the process manually.
Process	This activity starts another process, also referred to as a sub-process, which includes its own set of activities. You use the process activity to set up a hierarchy of processes, nesting them wherever appropriate.

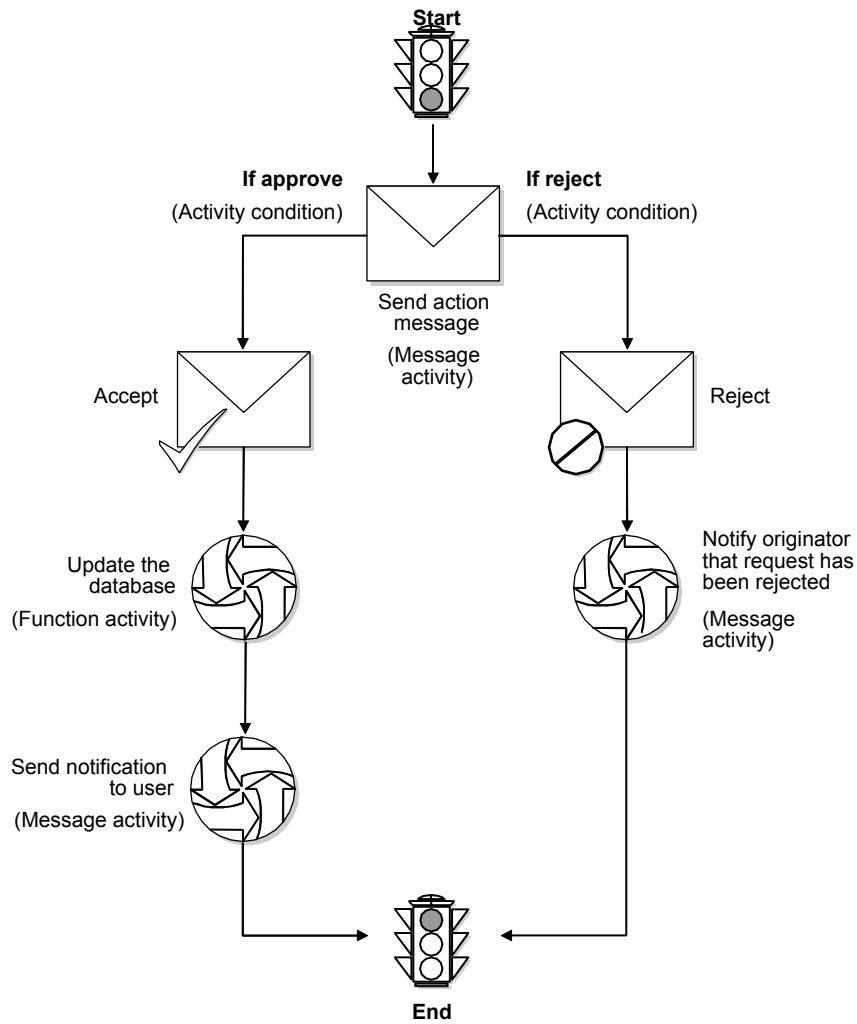
In addition to the activities described above, each workflow process must begin with the Start activity. By default, whenever you set up a process and attach a Start activity, the system attaches the end activity.

A typical workflow process (in this case, an approval process) with various types of activities attached is as follows:

- Send an action message to the approver's queue
- If approved:
 - Update the database
 - Send notification to user
- If rejected:
 - Send notification back to the originator
- End process

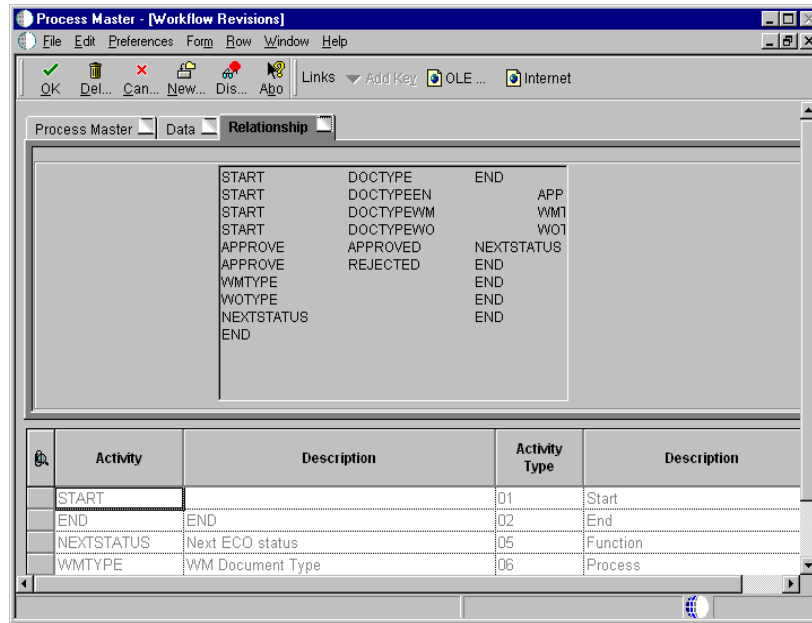
The following graphic illustrates a typical approval workflow process:

A Workflow Process



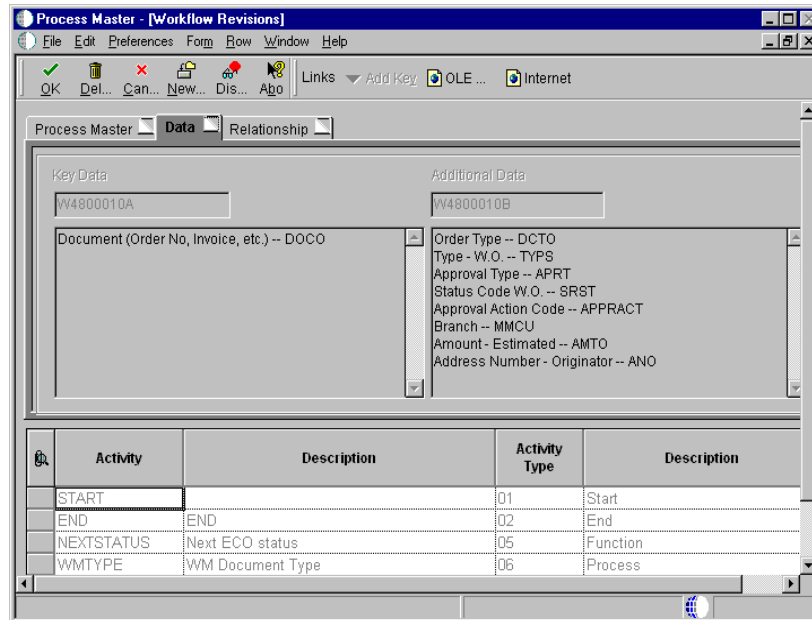
You can review all of the activities that are currently set up in Workflow Management from the Relationships Tab on the Workflow Revisions form.

Example: Workflow Revisions Form, Relationships Tab



All of the data fields that are currently attached to a particular process appear on the Data Tab on the Workflow Revisions form.

Example: Workflow Revisions Form, Data Tab



Note: Before you can revise an existing activity, you must deactivate the activity. Choose Deactivate from the Row Menu.

See Also

- *Adding Activities to a Process* in the *Enterprise Workflow Management Guide* for more information about setup requirements for different activity types

Understanding Process Rules

After you have set up and attached activities to a workflow process, you must add process rules to the process. Process rules are user defined and determine the conditions that must be met for Workflow Management to progress from activity to activity. There are two types of process rules, as follows:

Activity conditions	Activity conditions determine which activity the system executes and what happens when that activity is executed. For example, a condition set up for an approval activity might change the status of a work order if a work order is approved, or send a rejection message to the originator if the work order is rejected.
Recipient rules	Recipient rules determine to whom an activity is routed. You can add logic to a recipient rule, based on the structure of your organization. For example, you can specify that the system send messages to a particular distribution list when the approval type is 1, and another distribution list when the approval type is 2.

See Also

- *Adding Activity Conditions* and *Working With Recipient Rules* in the *Enterprise Workflow Management Guide*

Example: Work Order Approval Process

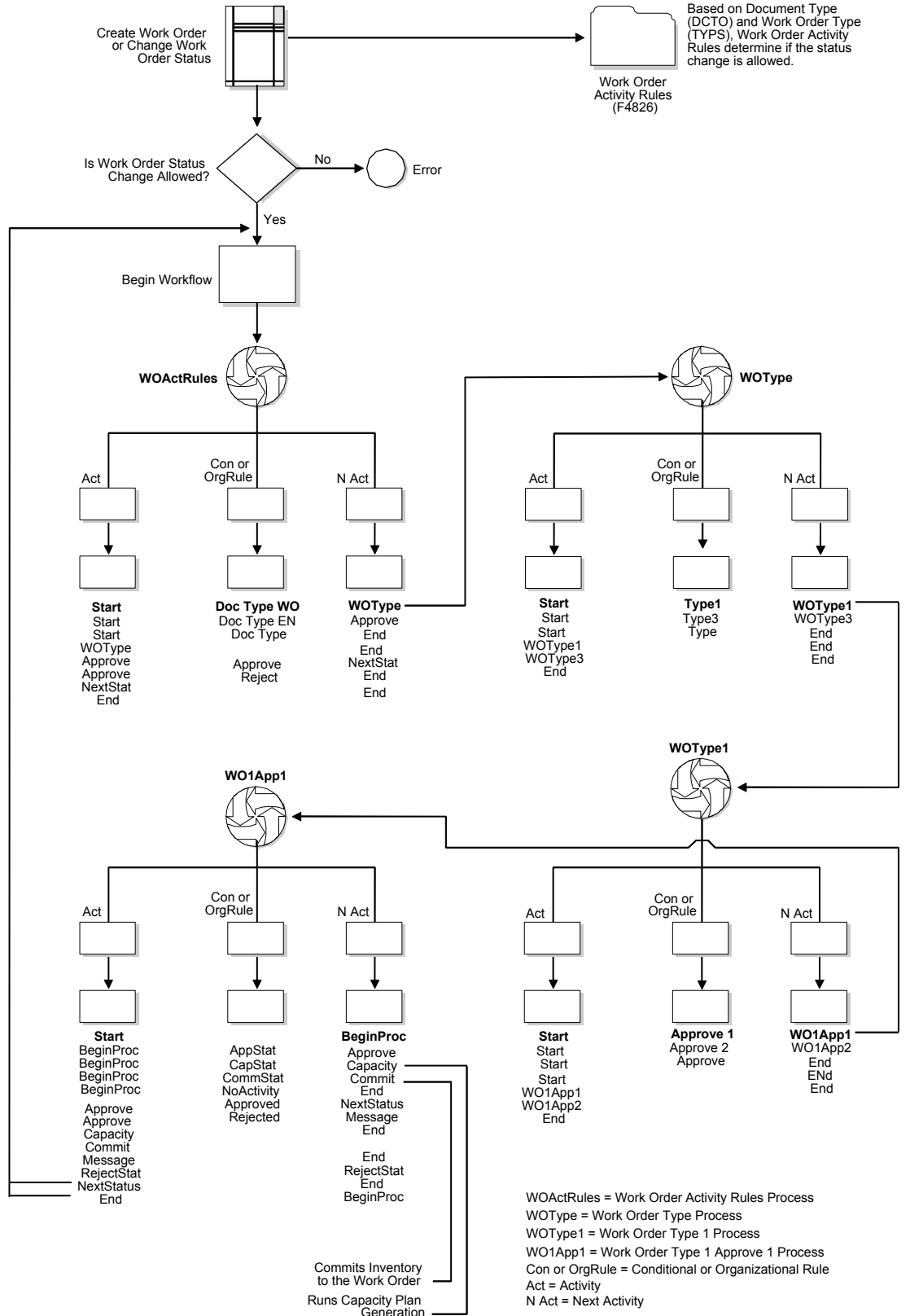
The following example is meant to assist your understanding of how the various components of workflow management, such as processes, sub-processes, and activities work together to provide a comprehensive workflow solution. The work order approval process represents a typical workflow process within Equipment/Plant Maintenance. By reviewing the example, you will be better aware of the particular workflow components that require modification to meet your business needs.

In the example provided, the approval process for a work order differs, based on the document type of the work order and the work order type. Document type and work order type are elements of the attribute data structure that you must set up to

be able to use Workflow Management to approve work orders. For ease of understanding, the example charts the workflow for a work order, with the document type of WO, and the work order type of Type 1. Bear in mind that document types and work order types are user defined codes. The codes that your organization uses will likely differ from the codes that J.D. Edwards provides as demo data.

In the example, the workflow process is initially triggered by the creation of a work order or any change made to the status of a work order. The system uses Work Order Activity Rules to determine if the status change is allowed. If the status change is not allowed, workflow does not begin and an error message appears. Otherwise, workflow begins normally. In Equipment/Plant Maintenance, regardless of any subsequent processes, the first work flow process for work orders is the WOactRules (Work Order Activity Rules) process. This process is hard-coded and cannot be modified.

Equipment-Plant Maintenance



Creating Corrective Work Orders

You create corrective work orders in Equipment/Plant Maintenance to formally request and schedule corrective maintenance, such as emergency repairs. You also use corrective work orders to record and communicate (to others who are involved) all of the details pertaining to the maintenance task.

You must create a work order master for every work order that you track. The master consists of basic information that defines the work order, such as the work order number, description, and the business unit to which the work order is charged. You can also enter additional information, such as category codes, to further identify the work order.

The system stores work order master information in the Work Order Master table (F4801).

You can assign record types to work orders and then enter descriptive information into each record type to communicate important information about a task to others who are involved. For example, you might want to include special instructions, and information about parts and tools needed to complete the task.

In addition, you can copy parts from a standard parts list or assign non-standard parts to a work order. You can also assign detailed labor routing instructions to a work order. For example, you can do the following:

- Identify each work center needed to perform the maintenance tasks
- Specify the sequence in which the tasks are performed
- Indicate the estimated duration of each maintenance task

You can delete any work order from the system unless it has any of the following characteristics:

- It is used as a parent work order.
- It has any account ledger transactions associated with it.
- It has a parts list or a routing attached.

You can create work orders for equipment covered by warranties. When you create a work order for a piece of equipment that is under warranty, a warning message appears to alert you that a warranty is in effect. You indicate that a piece of equipment is under warranty by creating PM service types for the warranty.

Creating corrective work orders consists of the following tasks:

- Entering basic work order information
- Adding text to a work order
- Working with supplemental information for work orders
- Assigning parts to a work order
- Assigning labor routing to a work order
- Copying a work order
- Creating a work order for unscheduled maintenance
- Creating a model work order for a PM service type
- Setting up a project

Before You Begin

- Define your chart of accounts for the charge-to business unit information. See *Creating and Updating Your Chart of Accounts* in the *General Accounting Guide*.
- Create PM service types for equipment under warranty. See *Creating a PM Schedule* for more information about creating PM service types for equipment under warranty.

Entering Basic Work Order Information

Depending on the complexity of your maintenance organization, you can create work orders that include only the most basic information required by the system, such as the work order number, description, business unit, and branch. Or you can include equipment numbers, a variety of explanations, scheduling dates, a standard description, and control codes. You can also enter budgeting information to help you track costs and resources.

You can assign up to ten category codes to a work order. Use category codes to further identify and organize work orders that have similar characteristics. This is especially useful for analyzing and reporting on work order information from a variety of perspectives, such as shop, division, and type of work. You can also analyze work order costs according to category codes. J.D. Edwards provides several predefined category codes. You can use these or customize your own category codes. You define all values for each category code.

In addition, you can assign responsible personnel, such as an originator and a supervisor, to a work order. You can also specify a search cross-reference that the system uses to search for work orders. For example, if you enter an equipment number on the work order, the system enters the parent equipment number in the Search Cross-Reference field.

Note: Many of the fields on Work Order Details are optional, but information in these fields is particularly useful when you search for a work order or group of work orders. You can use processing options to direct the system to enter default values in several fields, such as address book fields, category code fields, approval type fields, and manager and supervisor fields if you defined them during system setup.

You can also retrieve numerous default values from a parent work order, if you specify one. For example, you can use values from a parent work order to provide default values for the following fields:

- Work Order Type
- Start Date
- Planned Completion date

► To enter basic work order information

From the Equipment Work Orders menu (G1316), choose Work Order Entry.

1. On Work With Work Orders, click Add to access Work Order Details.

Work Order Entry - [Work Order Details]

File Edit Preferences Form Window Help

OK Can... Dis... Ago Links Descr... Previo... Next OLE... Internet

WO Number/Type 20001 EN

Description Replace Seat Post

General Codes Amounts Classification Assignments Attachments

Equipment Number

Std Parts/Inst

Status Comment Parent W.O. No

Start Date Requested Planned Comp Completed

Branch/Plant M30 Eastern Manufacturing Center

Charge to BU M30 Eastern Manufacturing Center

Repair Code

Work With Work Orders Work Order Details

2. On Work Order Details, complete the following fields:

- Description
- Branch/Plant
- Charge to BU

3. Complete the following optional fields:

- Equipment Number

Depending on how you set processing options, you might be required to enter an equipment number.

- Start Date

You must enter a start date if you plan to attach routing instructions or a parts list to the work order.

4. To assign parts from a standard parts list, complete the following field:

- Std Parts/Inst

5. Complete the following optional work order date fields:

- Requested
- Planned Comp

6. To prevent the entry of transactions to the work order, click the Codes tab and complete the following optional field:
 - Subledger Inactive Code
7. Complete any of the following optional fields:
 - Type
 - Status
 - Priority
 - Approval Type
 - Type Bill of Material
 - Type of Routing
8. Click the Amounts tab and complete the following optional fields:
 - Estimated Hours
 - Actual Hours
 - Estimated Duration
 - Actual Duration
 - Estimated Labor Cost
 - Actual Labor Cost
 - Estimated Material Cost
 - Actual Material Cost
 - Estimated Other Cost

If you attach routing instructions or a parts list, the system enters default values in the Estimated Hours field and the estimated amounts fields based on values from the parts list or the routing instructions.

9. Click the Classification tab and complete any of the work order Category Code fields as appropriate.

Note: Category code 1 is a four-character category code that appears on all work order reports and most forms that are associated with work orders.

10. Click the Assignments tab and complete any of the following fields to specify individuals responsible for the work order:
 - Originator
If you leave the Originator field blank, the system enters an originator based on your address book number.
 - Manager
 - Supervisor
 - Assigned To
 - Customer
Depending on how you set processing options, you might be required to enter a customer number.
11. Complete the following optional fields and click OK:
 - W.O. Flash Message
 - Std.Desc.
 - Search X-Ref

Field	Explanation
Charge to BU	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>

Field	Explanation
Branch/Plant	<p>A code that represents a high-level business unit. Use this code to refer to a branch or plant that might have departments or jobs, which represent lower-level business units, subordinate to it. For example:</p> <ul style="list-style-type: none"> • Branch/Plant (MMCU) • Dept A (MCU) • Dept B (MCU) • Job 123 (MCU) <p>Business unit security is based on the higher-level business unit.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This field identifies the Branch/Plant that maintains the parts inventory.</p>
Start Date	<p>The start date for the order. You can enter this date manually, or have the system calculate it using a backsheduling routine. The routine starts with the required date and offsets the total leadtime to calculate the appropriate start date.</p> <p>.....<i>Form-specific information</i>.....</p> <p>You must enter a start date if you attach a parts list or routing to the work order.</p>
Std Parts/Inst	<p>A number that the system assigns to an item. It can be in short, long, or third item number format.</p> <p>For process work orders, the item number is the process.</p>
Planned Comp	<p>The date that the work order or engineering change order is planned to be completed.</p>
Estimated Hours	<p>The estimated hours that are budgeted for this work order.</p>
Subledger Inactive Code	<p>A code in WorldSoftware or an option in OneWorld that indicates whether a specific subledger is active or inactive. Any value other than blank indicates that a subledger is inactive. Examples are jobs that are closed, employees that have been terminated, or assets that have been disposed. If a subledger becomes active again, set this field back to blank.</p> <p>If you want to use subledger information in the tables for reports but want to prevent transactions from posting to the master record, enter a value other than blank in this field.</p>
Approval Type	<p>A user defined code (system 48, type AP) indicating the type of work order approval path that a work order follows. You can use processing options to specify a default approval type based on the type of work order.</p>

Field	Explanation
Type Bill of Material	<p>A user defined code (40/TB) that designates the type of bill of material. You can define different types of bills of material for different uses. For example, you can differentiate between bills of material for maintenance and manufacturing.</p> <p>The system enters bill type M in the work order header when you create a work order, unless you specify another bill type. The system reads the bill type code on the work order header to know which bill of material to use to create the work order parts list. MRP uses the bill type code to identify the bill of material to use when it attaches MRP messages. Batch bills of material must be type M for shop floor management, product costing, and MRP processing.</p>
Type of Routing	<p>A user defined code (40/TR) that indicates the type of routing. You can define different types of routing instructions for different uses. For example, you can differentiate between equipment maintenance routings and manufacturing routings.</p> <p>You define the routing type on the work order header. The system then uses the specific type of routing that you define in the work order routing.</p>
Search X-Ref	<p>An alphanumeric value used as a cross-reference or secondary reference number. Typically, this is the customer number, supplier number, or job number.</p>
W.O. Flash Message	<p>A user defined code (00/WM) that indicates a change in the status of a work order. The system indicates a changed work order with an asterisk in the appropriate report or inquiry form field. The system highlights the flash message in the Description field of the work order.</p>

See Also

- *Setting Up Default Managers and Supervisors*

Processing Options for Equipment Work Order Entry (P48201)

Defaults 1

Enter the Default Category Codes to be used to Search for Work Orders

1. Phase _____
2. Category Code 02 _____
3. Category Code 03 _____

- 4. Category Code 04 _____
- 5. Category Code 05 _____
- 6. Category Code 06 _____
- 7. Category Code 07 _____
- 8. Category Code 08 _____
- 9. Category Code 09 _____
- 10. Category Code 10 _____

Defaults 2

Enter the Default Values to be used to
Search for Work Orders.

- 1. From Status Code W.O. _____
- 2. Thru Status Code W.O. _____
- 3. Type - W.O. _____
- 4. Document Type _____
- 5. Models _____
Blank = Do not include models
1 = Include models

Defaults 3

Enter the default address book numbers
to be used to search for work
orders.

- 1. Job or Business Unit _____
- 2. Originator _____
- 3. Customer _____
- 4. Planner _____
- 5. Supervisor _____

Versions

Enter the version of the following
applications to call. Leave blank to
use the default version defined in
parentheses.

- 1. Work Order Print - R48425 (XJDE0001) _____
- 2. Completed PM - P12071 (ZJDE0001) _____
- 3. Parts List - P3111 (ZJDE0001) _____
- 4. Routing Instructions - P3112
(ZJDE0001) _____
- 5. Inventory Issues - P31113 (ZJDE0002) _____

Equipment-Plant Maintenance

- 6. Time Entry - P311221 (ZJDE0001) (CSMS Only) _____
- 7. Work With Returned Material Authorization
P40051 (ZJDE0001)
(CSMS Only) _____
- 8. Open Purchase Order - P4310
(ZJDE0011) _____
- 9. Returned Material Authorization
Revisions Version - P400511
(CSMS Only) _____
- 10. On Line Service Order Quote - P17717
(ZJDE0001)
(CSMS Only) _____
- 11. Time Entry By Employee -
P051121 (ZJDE0001) _____

WO Entry

- 1. Choose the work order entry program to call when adding or selecting a work order. This entry program will also decide which UBE will be called for printing.
'1' - Equipment Work Orders
(P48011)
'2' - Service Work Orders
(P17714)
'3' - Project Task Details
(P48014)
'4' - Tenant Work Orders (P15248) _____
- 2. Enter the version of the selected work order entry to call. Leave blank to use default version defined in parentheses.
Work Order Entry (ZJDE0001) _____

Process

- 1. Enter a '1' to highlight the priority field within the grid. Leave blank to not highlight. _____
- 2. Customer Self-Service Functionality
Blank = Bypass Customer Self-Service functionality.
1 = Activate Customer Self-Service functionality for use in Java/HTML.
2 = Activate Customer Self-Service functionality for use in Windows. _____

What You Should Know About Processing Options

Accessing processing options for Equipment Work Order Entry

You use Work With Interactive Versions (P983051) to access the processing options for this program (P48011).

See *Working With Interactive Versions* in the *OneWorld Foundation Guide*.

Adding Text to a Work Order

You can enter additional text to further describe details about a work order by using record types assigned to work orders. For example, you might want to include special instructions in record type B, required parts and tools in record type C, and so on. The system stores the extended description of the work order in record type A.

Depending on the type of information that you need to include, you can enter text in two formats. You define the format for each record type when you set up work orders. The formats are:

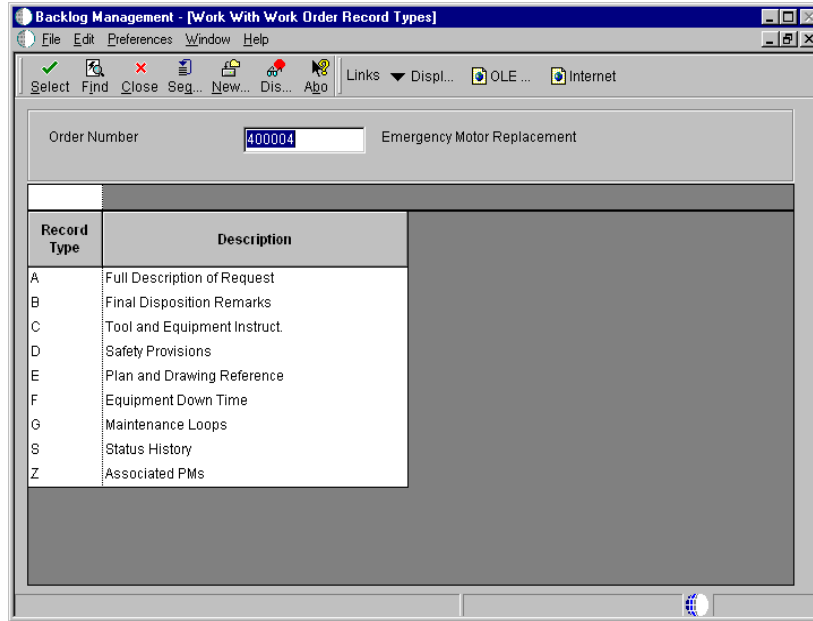
- Description only
- Description with three columns

You can also copy descriptive information from another work order.

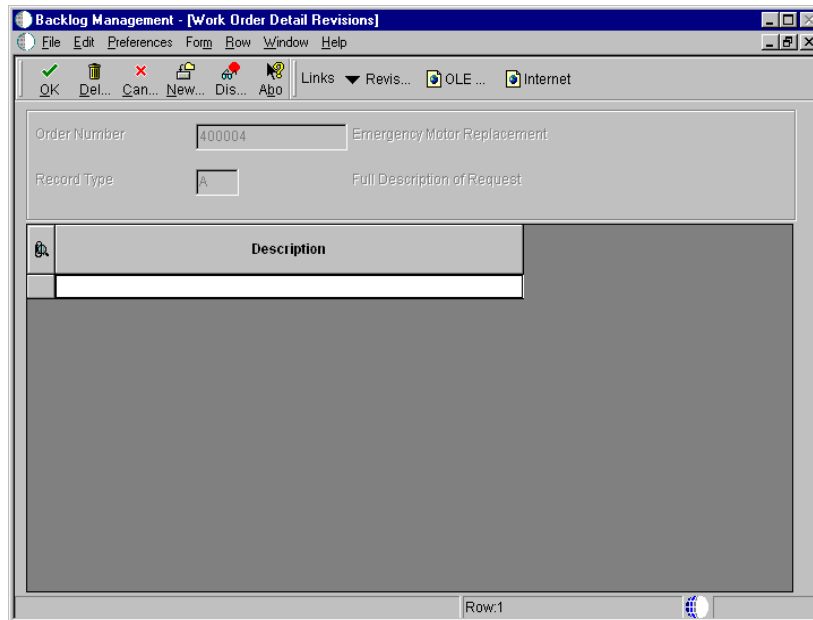
► To add text to a work order

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row, and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record for the work order and then choose Record Types from the Row menu.



3. On Work With Work Order Record Types, choose a record and click Select. The system displays Work Order Detail Revisions. Record types that contain information appear in bold print.



4. On Work Order Detail Revisions, enter the appropriate information for the current record type.

See Also

- *Setting Up Record Types*

Working with Supplemental Information for Work Orders

You can enter a variety of supplemental information for a work order. Use supplemental information to further track, review, and report on the work orders in your system. You set up and maintain supplemental information by defining supplemental data types and entering information appropriate for each supplemental data type. You define as many supplemental data types as you need. For example, you might set up supplemental information for maintenance work orders that includes a supplemental data type associated with safety procedures.

When you define supplemental data types, you specify the format in which you want to record and track information. Valid formats include:

- | | |
|------------------|---|
| Code | For supplemental data types in code format, you enter information in predefined columns. When you enter information in code format, you can also associate narrative information with it. |
| Narrative | For supplemental data types in narrative format, you enter free-form text. |

When you need to review supplemental information for a work order, you can quickly determine whether a particular supplemental data type contains information. On *Work With Supplemental Data*, a check mark appears in the leftmost field (unlabeled) next to rows for which supplemental data in code format has been entered. In addition, regardless of the data format, if narrative data exists for a supplemental data type, a paper clip appears when you place the mouse pointer over the field.

Working with supplemental information for work orders consists of the following tasks:

- Entering supplemental data in code format
- Entering supplemental data in narrative format

Before You Begin

- ❑ Set up data types for supplemental information. See *Defining Supplemental Data Types*.

Entering Supplemental Data in Code Format

When you enter supplemental data in code format, the information appears in predefined columns. For example, the form for entering safety procedures might have columns for procedure name, special tool requirements, responsible work centers, and safety equipment.

To ensure consistency of data entry, the fields that require supplemental data are typically associated with specific user defined code tables, or generic rates and messages tables. Any value that you enter in one of these fields must be included in the associated user defined code table or generic rates and messages table. For example, assume that you have set up a supplemental data type for safety procedures that includes a field for safety equipment. Further, assume that you associated the field for safety equipment with a user defined code table. The user defined code table might list all of the safety equipment that you track. If you attempt to enter a piece of safety equipment that is not included in the associated user defined code table, an error message appears.

► To enter supplemental data in code format

From the Work Order Supplemental Data menu (G4813), choose Data Entry.

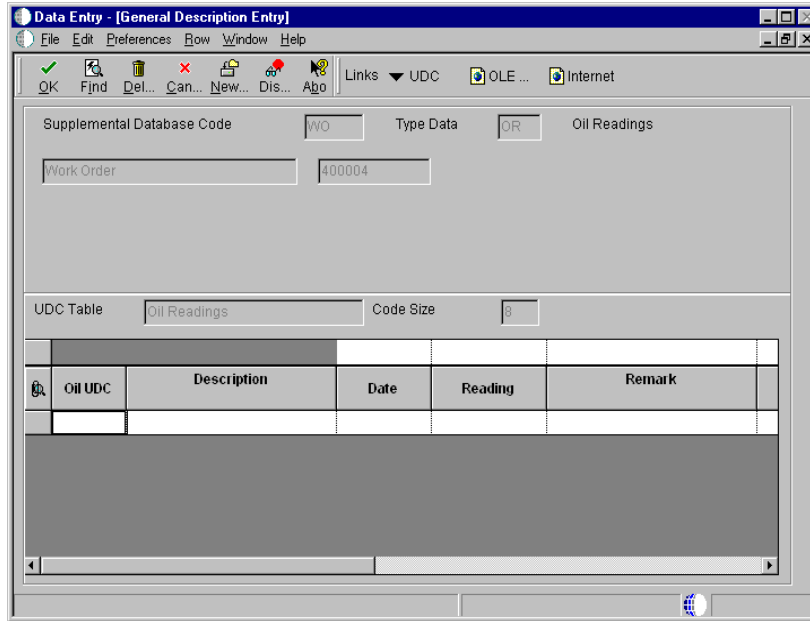
1. On Work With Supplemental Data, complete the following field and click Find to display a list of valid supplemental data types for work orders:

- Supplemental Data Numeric Key 1

The name of this field corresponds to the Row Description for the Generic Numeric Key 1 on Supplemental Database Setup. J.D. Edwards predefines this field as Work Order Number for the Work Order database.

2. Choose the row for the supplemental data type where you want to enter supplemental data and click Select.

Supplemental data types that are in code format contain a C in the Data Mode field.



3. On General Description Entry, complete the appropriate fields for this data type in the detail portion of the form and click OK.
4. To enter additional narrative information for a supplemental data type, choose the record on Work With Supplemental Data, and then choose Attachments from the Row menu.
The system displays Media Objects, from which you can add a variety of information to the supplemental data type.

Field	Explanation
Supplemental Data Numeric Key 1	This field specifies one of the numeric keys to the Generic Supplemental Database. You can select the key from a list of supported data items, such as Address Number, Account ID, Asset ID, Item Number, and so on.

Entering Supplemental Data in Narrative Format

When you enter supplemental data in narrative format, you enter free-form text. For example, you might set up a supplemental data type in narrative format for problems encountered and use it to record general information regarding problems in completing work orders.

When narrative data exists for a supplemental data type, a paper clip appears in the leftmost field (unlabeled) on Work With Supplemental Data when you hold the mouse pointer over the field.

► To enter supplemental data in narrative format

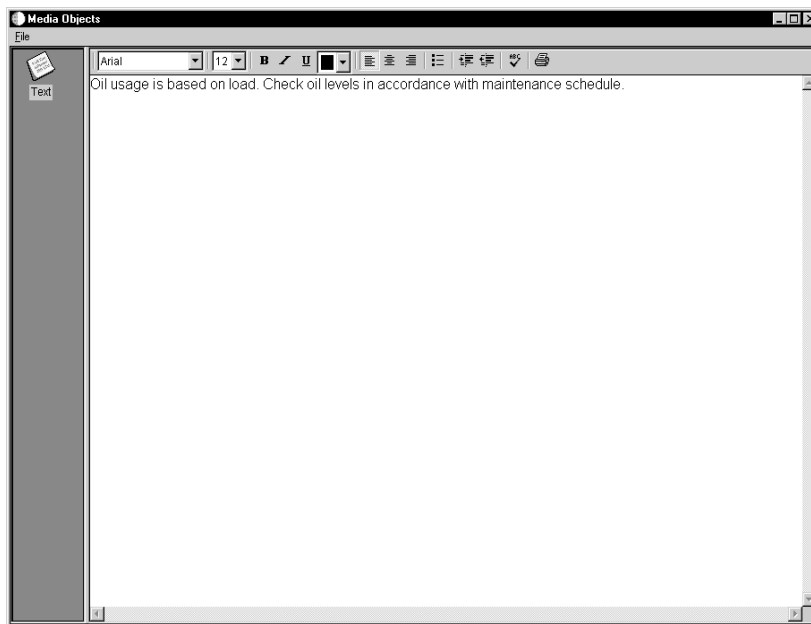
From the Work Order Supplemental Data menu (G4813), choose Data Entry.

1. On Work With Supplemental Data, complete the following field and click Find to display a list of valid supplemental data types for a work order:
 - Supplemental Data Numeric Key 1

The name of this field corresponds to the Row Description for the Generic Numeric Key 1 on Supplemental Database Setup. J.D. Edwards predefines this field as Work Order Number for the Work Order database

2. Choose the row for the supplemental data type where you want to enter supplemental data and click Select.

Supplemental data types that are in narrative format contain an N in the Data Mode field.



3. On Media Objects, choose Add from the File menu, then choose Text.
4. Type the appropriate information and then choose Save & Exit from the File menu.

Assigning Parts to a Work Order

You can assign parts to a work order to satisfy parts requirements for maintenance tasks. Depending on how you set up your system, you can indicate how and when the system commits inventory to satisfy a work order's parts requirements. For example, you can use Workflow Management to direct the system to commit inventory to a work order only at a particular work order status.

You can assign parts from a standard parts list that you enter when you create the work order. In addition, you can assign inventory parts that do not appear on a standard parts list, such as when you are creating a work order for an unanticipated emergency repair. You can also assign parts for which you do not maintain an inventory master, such as special order parts that you rarely need. All parts inventory information applicable to a work order appears on Work Order Parts List.

Assigning parts to a work order consists of the following tasks:

- Assigning parts from a standard parts list
- Working with selected parts from inventory
- Assigning parts without an inventory master

Before You Begin

- Verify that you have purchased and installed the following systems. You must have installed these systems to be able to use Work Order Parts List:
 - System 30: Product Data Management
 - System 31: Shop Floor Management
 - System 40: Inventory Base and Order Processing
 - System 41: Inventory Management
 - System 43: Procurement
- Verify that standard parts lists have been set up. See *Setting Up a Standard Parts List*.

See Also

- *Appendix A: Inventory Concepts and Setup* for more information about inventory terms and concepts

- *Setting Up a Standard Parts List* for more information about how the system commits inventory

Assigning Parts from a Standard Parts List

You can assign parts to a work order from a standard parts list. This is especially useful when you create work orders for routine maintenance tasks that require identical parts.

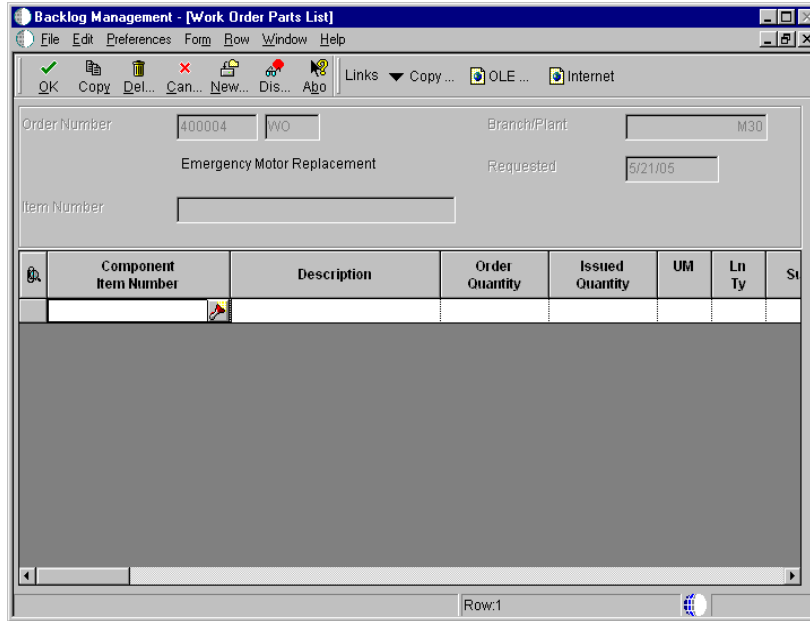
Before You Begin

- Verify that the following fields on Work Order Details have been completed:
 - Standard Parts or Instructions
 - Start Date

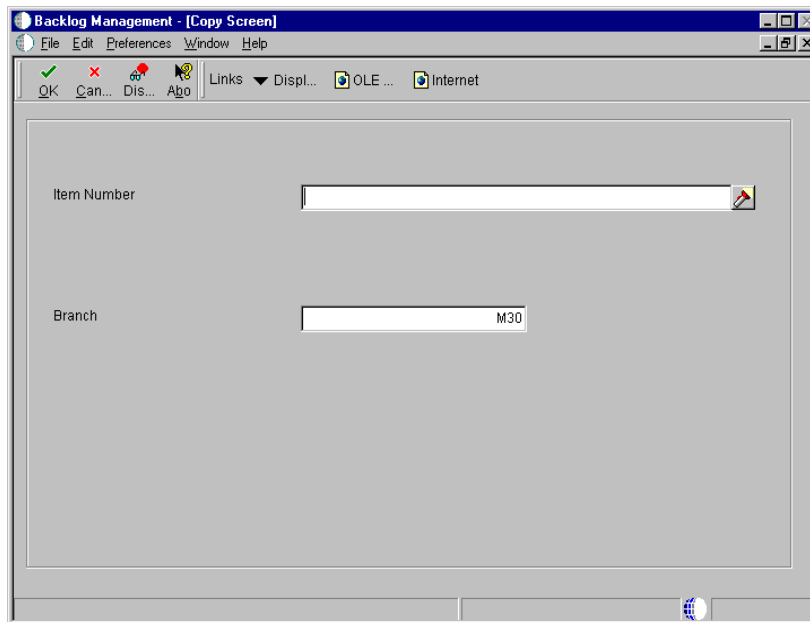
► To assign parts from a standard parts list

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Parts List from the Row menu.



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



4. On Copy Screen, click OK to copy the bill of material for the displayed item and branch/plant to the work order parts list.

You can accept the values on Copy Screen or enter different values. The system completes the Work Order Parts List form with values from the standard parts list.

Component Item Number	Description	Order Quantity	Issued Quantity	UM	Ln Ty	St
-----------------------	-------------	----------------	-----------------	----	-------	----

5. On Work Order Parts List, make any necessary changes to the parts list and click OK.

Working with Selected Parts from Inventory

You can assign parts that do not appear on a standard parts list, such as when you are creating a work order for an unanticipated emergency repair. If you need a part that is not currently available at your location, you can search for other locations that stock the part and use them to supply parts to the work order parts list.

When a part is unavailable, you can specify a substitute part. In addition, you can add explanatory text to any part that you include on a work order parts list.

Working with selected parts from inventory includes:

- Adding parts to a parts list
- Revising the location for a part
- Choosing a substitute part

Before You Begin

- Set up substitute parts through the Inventory Cross Reference program. See *Setting Up Item Cross-References* in the *Inventory Management Guide* for more information about assigning inventory cross-references.

► **To add parts to a parts list**

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Parts List from the Row menu.
3. On Work Order Parts List, complete the following fields and click OK:
 - Component Item Number
 - Description
 - Order Quantity
 - Line Type

Use line types to distinguish the various methods of recording stock and nonstock inventory.

Field	Explanation
Ln Ty	<p>A code that controls how the system processes lines on a transaction. It controls the systems with which the transaction interfaces, such as General Ledger, Job Cost, Accounts Payable, Accounts Receivable, and Inventory Management. It also specifies the conditions under which a line prints on reports and is included in calculations. Codes include the following:</p> <ul style="list-style-type: none"> S Stock item J Job cost N Nonstock item F Freight T Text information M Miscellaneous charges and credits W Work order

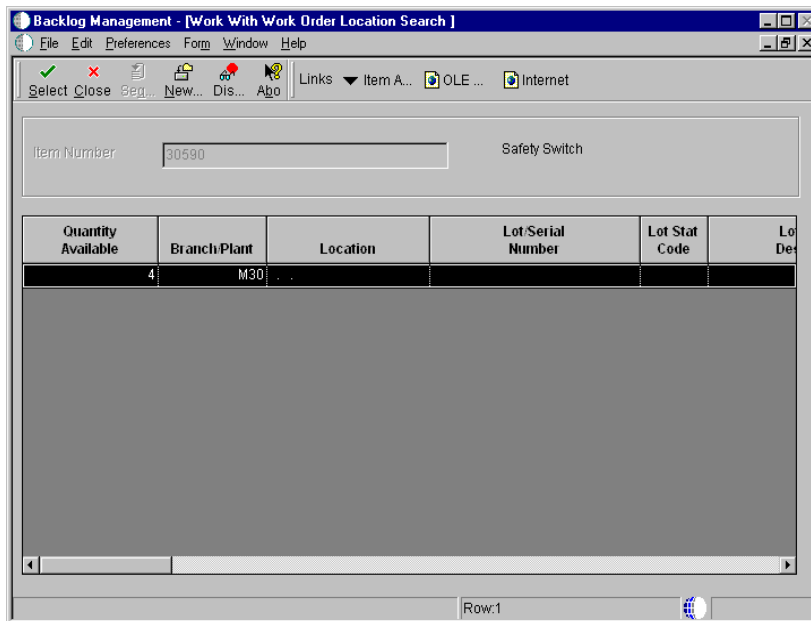
See Also

- *Appendix A: Inventory Concepts and Setup* for more information about line types

► To revise the location for a part

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Parts list from the Row menu.
3. On Work Order Parts List, choose the record for a part for which you want to revise the location and then choose Location Search from the Row menu.



4. On Work With Work Order Location Search, choose an alternate location for the part and click Select.
5. On Work Order Parts List, click OK to accept the change.

The system replaces the original location information with the new information.

Related Tasks

Specifying multiple locations for a part

You can specify multiple locations for a part. On Work Order Parts List, choose Multiple Location Parts Search. A window opens, showing all locations that stock the part. Select the locations that you want to add. The system adds the new locations to the parts list and updates the on-hand quantity.

► To choose a substitute part

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Parts List from the Row menu.
3. On Work Order Parts List, choose the record for a part for which you want to substitute and then choose Item Substitutes from the Row menu.

4. On Component Item Substitutions, complete the following field and click OK:

- Units - Order/Transaction Quantity
5. On Work Order Parts List, click OK to accept the change.

Assigning Parts Without an Inventory Master

You can assign parts to a work order for which you do not maintain an inventory master. This is especially useful to add parts for which you rarely have a need to a work order, such as special order parts.

► To assign parts without an inventory master

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Parts List from the Row menu.
3. On Work Order Parts List, complete the following fields for each part that you want to add:
 - Component Item Number
 - Description
 - Order Quantity
 - Line Type
4. Complete the following optional fields and click OK:
 - Amount - Estimated Cost
 - Address Number
 - Unit of Measure

Assigning Labor Routing to a Work Order

You can specify which work center is responsible for each maintenance task on a work order. You can specify the sequence of operations for each task, as well as the labor rates and the number of hours necessary to complete each task.

You can assign labor routing instructions to a work order using the following methods:

- Copy labor routing information from standard instructions
- Manually assign labor routing instructions

When you know in advance the labor requirements for a particular task, you can set up standard routing instructions for the task. You can copy from these instructions when you need to assign labor routings for similar tasks.

You can manually assign labor routing instructions for any maintenance task for which you have not set up standard routing instructions.

Before You Begin

- Verify that you have purchased and installed the following systems. You must have installed these systems to be able to use Equipment Work Order Routings.
 - System 30: Product Data Management
 - System 31: Shop Floor Management
 - System 40: Inventory Base and Order Processing
 - System 41: Inventory Management
 - System 43: Procurement
- Verify that the following fields on Work Order Entry are complete:
 - Standard Parts or Instructions
 - Start Date

► To copy labor routing information from standard instructions

From the Equipment Work Orders menu (G1316), choose Backlog Management.

Equipment-Plant Maintenance

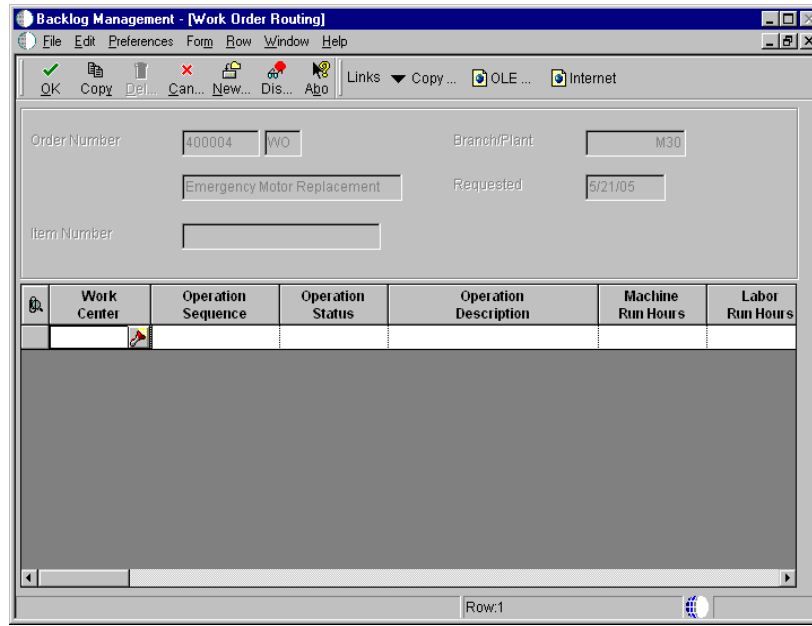
1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Instructions from the Row menu.

The screenshot shows the 'Backlog Management - [Work Order Routing]' window. The menu bar includes File, Edit, Preferences, Form, Row, Window, and Help. The toolbar contains icons for OK, Copy, Del..., Can..., New..., Dis..., and Ato. The main area contains several input fields: Order Number (400004), WO, Branch/Plant (M30), Emergency Motor Replacement, Requested (5/21/05), and Item Number. Below the form is a table with the following headers: Work Center, Operation Sequence, Operation Status, Operation Description, Machine Run Hours, and Labor Run Hours. The table is currently empty. At the bottom, there is a 'Row:1' indicator and a globe icon.

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

The screenshot shows the 'Backlog Management - [Copy by Item]' window. The menu bar includes File, Edit, Preferences, Window, and Help. The toolbar contains icons for OK, Can..., Dis..., and Ato. The main area contains two input fields: Item Number and Branch/Plant (M30). At the bottom, there is a globe icon.

4. On Copy by Item, click OK to copy the standard instructions for the displayed item and branch/plant to the work order routing.
 You can accept the values on Copy Screen or enter different values. The system completes the Work Order Routing form with values from the standard instructions.



5. On Work Order Routing, make any changes as necessary and click OK.

► To manually assign labor routing instructions

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record and then choose Instructions from the Row menu.
3. On Work Order Routing, complete the following fields and click OK:
 - Work Center
 - Operation Sequence
 - Operation Description

- Machine Run Hours
 - Labor Run Hours
4. Complete the following optional fields and click OK:
- Operation Status
 - Rate
 - Start Date
 - Date - Start (Julian)
 - Date - Requested
 - Overlap Percent
 - Crew Size
 - Instruction Number

Field	Explanation
Work Center	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>

Field	Explanation
Operation Sequence	<p>A number used to indicate an order of succession.</p> <p>In routing instructions, a number that sequences the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, a number that designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing instructions for the item. The Shop Floor Management system uses this number in the backflush/preflush by operation process.</p> <p>In engineering change orders, a number that sequences the assembly steps for the engineering change.</p> <p>For repetitive manufacturing, a number that identifies the sequence in which an item is scheduled to be produced.</p> <p>Skip To fields allow you to enter an operation sequence that you want to begin the display of information.</p> <p>You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.</p>
Operation Description	<p>A description can be:</p> <ul style="list-style-type: none"> • Brief information about an item • A remark • An explanation
Machine Run Hours	<p>The standard machine hours that you expect to incur in the normal production of this item.</p>
Labor Run Hours	<p>The standard hours of labor that you expect to incur in the normal production of this item.</p> <p>The run labor hours in the Routing Master table (F3003) are the total hours that it takes the specified crew size to complete the operation. The hours are multiplied by the crew size during shop floor release and product costing.</p>
Operation Status	<p>A user defined code (31/OS) that identifies the current status of a work order or engineering change order as the operation steps in the routing are completed.</p>
Rate	<p>This is the rate used to estimate the labor cost of a routing step. The system derives this rate from frozen standard rates.</p>
Start Date	<p>The start date for the order. You can enter this date manually, or have the system calculate it using a backsheduling routine. The routine starts with the required date and offsets the total leadtime to calculate the appropriate start date.</p>

Field	Explanation
Overlap Percent	<p>A number that indicates the percentage that successive operations can overlap. The actual overlap percentage entered for the operation sequence is the percent by which that operation overlaps the prior operation. For example, if you enter 80%, this indicates that work can begin on the overlapped operation when 20% of the prior operation is completed.</p> <p>Notes:</p> <ol style="list-style-type: none">1. Overlapping has no effect on move and queue calculations.2. The percent entered must be less than or equal to 100%. <hr/> <p>Enter percents as whole numbers: 5% as 5.00</p>
Crew Size	<p>The number of people who work in the specified work center or routing operation.</p> <p>The system multiplies the Run Labor value in the Routing Master table (F3003) by crew size during costing to generate total labor amounts.</p> <p>If the Prime Load Code is L or B, the system uses the total labor hours for backscheduling. If the Prime Load Code is C or M, the system uses the total machine hours for backscheduling without modification by crew size.</p>
Instruction Number	<p>A generic rates and message code (48/SN) that is assigned to a standard note, message, or general narrative explanation. You can use this code to add instructional information to a work order. You set up codes for this field on the Generic Message/Rate Types table (F00191).</p>

Copying a Work Order

When you have an existing work order with information that is applicable to other work orders, you can copy it using Copy Work Order. For example, you might need to perform maintenance on a machine that is similar to the maintenance that you performed on another machine. Instead of creating a new work order, you can copy the work order for the previous maintenance. When you copy an existing work order, the system assigns a unique number to the new work order. Otherwise, the following information remains unchanged:

- All information from the Work Order Details form
- Parts list
- Labor routing instructions

- Record types

You can also use a parent work order as the basis for creating a work order. The system uses the information stored in the master for the parent work order to automatically enter the basic work order information, category codes, and record type information into the new work order. Use this method when you need to group work orders that share information that used for reporting and cost accounts.

You can use the following methods to copy a work order:

- Copy a work order using an existing work order
- Create a work order based on a parent work order

▶ **To copy a work order using an existing work order**

From the Equipment Work Orders menu (G1316), choose Work Order Entry.

1. On Work with Work Orders, complete the following field in the Query by Example row to locate the work order:
 - Document (Order No, Invoice, etc.)
2. Choose the work order and then choose Copy Work Order Detail from the Row menu.

A new work order appears, identical to the one that you copied, but with a unique work order number. The system copies the parts list, routing instructions, and record types from the original work order to the new work order.

▶ **To create a work order based on a parent work order**

From the Equipment Work Orders menu (G1316), choose Work Order Entry.

1. On Work with Work Orders, complete the following field in the Query by Example row to locate the work order:
 - Parent Order Number
2. Choose the record then choose Parent WO from the Row menu.

A new work order appears, identical to the one that you copied, but with a unique parent order number. The system copies the parts list, routing instructions, and record types from the original work order to the new work order.

See Also

- *Entering Basic Work Order Information* for the processing options for this program

Creating a Work Order for Unscheduled Maintenance

When you have set up maintenance tasks to come due on an as-needed basis rather than a scheduled interval, you can notify the system when you want to create a work order to perform the tasks. For example, you might want to wash a piece of equipment only when it is in the shop for other maintenance.

Note: When you create a work order for unscheduled maintenance, the system runs the ZJDE001 version of the Update PM Schedule Status program. The default values for this version ensure that the system updates the maintenance status and PM schedule only for the equipment for which the unscheduled maintenance task applies. J.D. Edwards recommends that you do not change the processing options for this version.

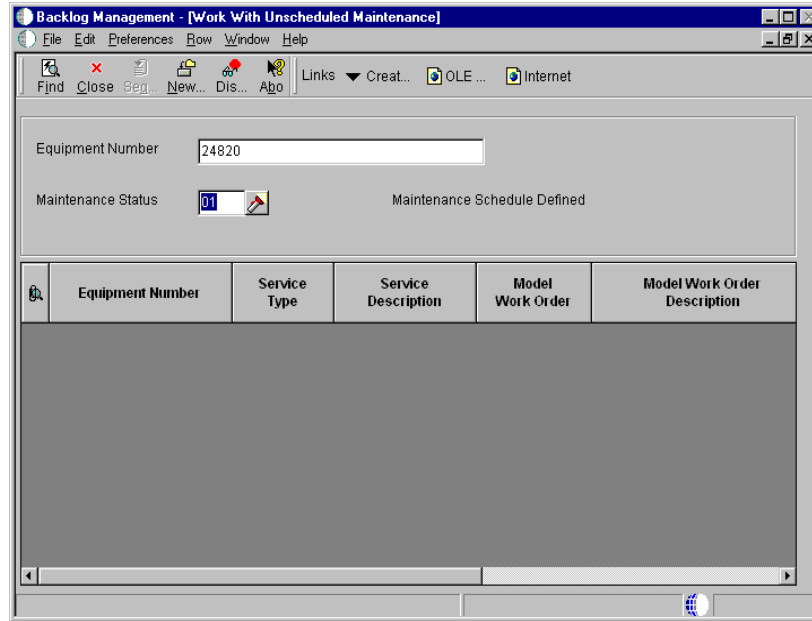
Before You Begin

- Set up a PM service type for each unscheduled maintenance task and verify that the service type has no schedule date or service interval. See *Creating a PM Schedule* for more information about setting up service types.

► To create a work order for unscheduled maintenance

From the Equipment Work Orders menu (G1316), choose Backlog Management or Equipment Backlog.

1. On Work With Work Orders or Work With Equipment Work Orders, complete the following field and click Find:
 - Equipment Number
2. From the Form menu, choose Unscheduled PMs.



The Work With Unscheduled Maintenance form appears, showing all unscheduled maintenance procedures that are set up for the equipment.

3. Choose a service type for which you want to perform maintenance and then choose Create Work Order from the Row menu.

The system updates the PM schedule to indicate the maintenance as 100 percent due and generates the corresponding work order.

See Also

- *Locating Work Orders* for the processing options for this program

Creating a Model Work Order for a PM Service Type

You can create model work orders for any service type on a PM schedule. When you create a model work order, the system assigns it a unique number. When you enter a model work order number for a service type on a PM schedule, depending on how you set processing options on Update PM Schedule Status, the system automatically generates a new work order based on information from the model each time that the service type comes due. For example, the new work order might include the parts list, routing instructions, and any media objects that you attached to the model work order.

Technical Considerations

Parts lists and routings for model work orders When you choose Parts List from a model work order, the system accesses the Standard Parts List form. When you choose Routings, the system accesses the Standard Instructions form.

In addition, you can copy a media object from the model work order to the assigned PM work order.

Note: You can use any existing work order as a model work order. You assign model work orders to service types when you create PM schedules. J.D. Edwards recommends that you enter a work order type that includes an X in the first position of the second description line for the user defined code for Work Order Type (00/TY). When you use Backlog Management to search for work orders, you can specify that the system exclude model work orders from the search.

Before You Begin

- ❑ Verify that you have set up the user defined code table for Work Order Type (00/TY) with at least one work order type that includes an X in the first position of the second description line. See *Understanding User Defined Codes*.

► To create a model work order for a PM service type

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, click Add to access Work Order Details.
2. On Work Order Details, complete the following fields:
 - Description
 - Charge to BU
 - Branch/Plant
3. Complete any of the remaining fields applicable to the service type for the work order.

You do not need to enter an equipment number. The system automatically assigns the equipment number from the PM schedule for which the work order applies.

If you enter a value in the Standard Parts and Instructions field, the system copies the parts and routing to the assigned work order.

4. To specify the work order as a model, click the Codes tab and complete the following field:
 - Type

The value that you enter must include an X in the first position of the second description line for the user defined code indicated.
5. Complete any of the remaining fields that you want to apply to the service type.
6. Click the Classification tab and complete any of the Category Code fields that you want to apply to the service type.
7. Click the Assignments tab and complete any of the fields that you want to apply to the service type, and then click OK.

See Also

- *Adding Text to a Work Order*
- *Assigning Parts to a Work Order*
- *Assigning Labor Routing to a Work Order*
- *Working With Supplemental Information for Work Orders*

Setting Up a Project

For a group of maintenance tasks that are interrelated and subordinate to a larger task, such as a plant shutdown or the retooling of a manufacturing line, you can combine the tasks into a project. Setting up a project is especially useful when you need to monitor the day-to-day details of a project within the context of the project as a whole.

Setting up a project is a similar process to creating work orders using parent information. However, to set up a project, you use Project Setup to create several work orders at the same time and group them into a hierarchy under an existing (parent) work order. You can then manage all of the tasks through one work order. The parent work order represents the project, and each work order assigned to the parent represents a specific task within the project.

The system automatically enters basic work order information, category codes, and record type information from the parent work order into each work order in the project. After you create the project hierarchy, you can enter specific information for each work order by accessing the Work Order Details form. Use processing options to specify which Work Order Details form that the system will display when you want to enter additional work order information. You can then enter additional information about each work order, such as status comments or an extended description of the task.

► To set up a project

From the Simple Project Management menu (G4812), choose Project Setup.

1. On Project Setup, complete the following fields to identify the project:
 - Parent W.O. No
 - Address Number
 - Job or BU
2. To describe each step of the project, complete the following field in the detail area:
 - Description
3. To further define each step of the project, complete the following optional fields and click OK:
 - Categories - Work Order 01
 - Date - Start (Julian)
 - Date - Completion (Julian)
 - Hours - Estimated
 - Document (Order No, Invoice, etc.)
 - Address Number - Manager
 - Message Number

Field	Explanation
Parent W.O. No	<p>A number that identifies the parent work order. You can use this number to do the following:</p> <ul style="list-style-type: none"><li data-bbox="805 405 1414 468">• Enter default values for new work orders, such as Type, Priority, Status, and Manager<li data-bbox="805 474 1321 531">• Group work orders for project setup and reporting

Working with Work Orders

After you have created work orders, you can perform a variety of tasks to manage the work orders as they move through the work order life cycle. For example, you can:

- Search for specific work orders or groups of work orders
- Revise information, such as start date, priority, status, and so on, as work orders move through the life cycle and demands on your maintenance organization change
- Review information about the parts lists for work orders
- Print hard copies of work orders for use by maintenance personnel
- Change the status of a work order to complete, indicating that the maintenance tasks have been performed

Working with work orders consists of the following tasks:

- Locating work orders
- Revising work orders
- Reviewing work order parts lists
- Purchasing parts for a work order
- Printing work orders

Locating Work Orders

You can use a variety of search criteria to locate work orders in your maintenance organization. You can locate work orders using Backlog Management or Equipment Backlog. The method that you choose depends on the information that you know about the work orders that you want to locate, as well as the tasks that you want to perform after you locate the work orders.

Locating work orders consists of the following tasks:

- Locating work orders using Backlog Management

❑ Locating work orders using Equipment Backlog

You can use Backlog Management or Equipment Backlog to complete multiple tasks with a single work order. For example, after you locate a work order using Backlog Management, you can access Work Order Inventory Issues, a program that allows you to issue parts to the work order without returning to the Equipment/Plant Maintenance menu.

The following graphic shows many of the forms and functions that you can access when you use Backlog Management or Equipment Backlog:



Search for Work Orders by:

- * Company
- * Equipment Status
- * Description
- * Responsible Business Unit
- * Location
- * Category Codes



Exit To:

- * Equipment Masters
- * Location Transfer
- * Parent History Inquiry
- * Search Like Equipment
- * Message Log
- * Cost Summary
- * Location History
- * License Information
- * Work Order Backlog
- * Equipment Backlog
- * Supplemental Data
- * PM Schedule
- * PM Backlog
- * Supplemental Data

Locating Work Orders Using Backlog Management

You can enter a variety of search criteria on Backlog Management to locate work orders in your maintenance organization. You can also use Backlog Management to complete multiple tasks with a single work order. For example, after you locate a

work order, you can access a program that allows you to make revisions to the parts list.

Use Backlog Management to review work order information that is not specific to a piece of equipment or a category of equipment. When you use Backlog Management, you can use any combination of the information shared among work orders to locate them. For example, you can locate all the work orders for a business unit that are assigned to a particular supervisor. Depending on how you set up your system and on the processing options that are in effect, the system enters * in many of the search fields on Backlog Management, such as the following:

- Status
- Supervisor
- Manager (Planner)
- Customer
- Originator

You can perform a broad, relatively unfiltered search for work orders by accepting the wildcard values, rather than completing specific search fields. To search for work orders with specific characteristics, use tabs on the search form to access the appropriate data field.

Information that you can use to locate work orders with Backlog Management includes:

- A job or business unit
- A subsidiary or cost code (repair code)
- Equipment for which the work orders apply
- The work center or craft to which work orders are assigned
- The estimated hours and duration of the work orders
- The person who originated the work orders
- The manager or supervisor of the work to be performed
- Any combination of the user defined information associated with the work orders, such as category codes and work order type
- Any of the dates associated with the work orders, such as start date and planned completion date

You can perform a variety of tasks from Backlog Management, including the following:

- Create a work order for unscheduled maintenance
- Review a summary of equipment failures and downtime
- Review or revising work order text
- Review a summary of estimated and actual work order costs
- Review a summary of selected work orders that displays the following:
 - The number of work orders that meet your criteria
 - The estimated hours to complete all of the work orders
 - The estimated average number of hours needed to complete each work order
- Review parts and labor routing instructions
- Review open purchase orders for work orders
- Issue parts to a work order

► **To locate work orders using Backlog Management**

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, click the General tab in the header area and complete any of the following fields:
 - Equipment Number
 - Business Unit or Job
 - Subsidiary
 - Parent Order Number
2. To limit your search for work orders based on responsible personnel, click the People tab in the header area and complete any of the following fields:
 - Customer
 - Manager/Planner
 - Supervisor
 - Originator

3. To limit your search based on specific dates, click the Dates tab in the header area and complete any of the following From/Through fields:
 - Order Date - From/Through
 - Start Date - From/Through
 - Planned Comp. - From/Through
 - Completed - From/Through

4. To limit your search based on work order category codes, click the Category Codes tab in the header area and complete any of the category code fields:
 - Phase
 - Category 2
 - Category 3
 - Category 4
 - Category 5
 - Status
 - Service Type
 - Skill Type
 - Experience Level
 - Category 10

5. To limit your search based on information associated with work order status, click the Status tab in the header area and complete any of the following From/Through fields associated with the status of work orders:
 - Order Status - From/Through
 - Est. Downtime Hrs. - From/Through
 - Percent Complete - From/Through
 - Est. Hours - From/Through

6. To limit your search based on specific types of work orders, click the Order Definition tab in the header area and complete any of the following optional classification fields:
 - Document Order Type
 - Type - W.O.
 - Order Priority
 - Cross/Reference
7. To include model work orders in the search, click the following option:
 - Include Models
8. Click the Classification tab in the header area, complete the following optional field, and then click Find:
 - Inventory Item Number

Processing Options for Work With Work Orders (P48201)

Defaults 1

Enter the Default Category Codes to be used to Search for Work Orders

1. Phase _____
2. Category Code 02 _____
3. Category Code 03 _____
4. Category Code 04 _____
5. Category Code 05 _____
6. Category Code 06 _____
7. Category Code 07 _____
8. Category Code 08 _____
9. Category Code 09 _____
10. Category Code 10 _____

Defaults 2

Enter the Default Values to be used to Search for Work Orders.

1. From Status Code W.O. _____
2. Thru Status Code W.O. _____

3. Type - W.O. _____

4. Document Type _____

5. Models _____
 Blank = Do not include models
 1 = Include models

Defaults 3

Enter the default address book numbers to be used to search for work orders.

1. Job or Business Unit _____

2. Originator _____

3. Customer _____

4. Planner _____

5. Supervisor _____

Versions

Enter the version of the following applications to call. Leave blank to use the default version defined in parentheses.

1. Work Order Print - R48425 (XJDE0001) _____

2. Completed PM - P12071 (ZJDE0001) _____

3. Parts List - P3111 (ZJDE0001) _____

4. Routing Instructions - P3112 (ZJDE0001) _____

5. Inventory Issues - P31113 (ZJDE0002) _____

6. Time Entry - P311221 (ZJDE0001) (CSMS Only) _____

7. Work With Returned Material Authorization
 P40051 (ZJDE0001) (CSMS Only) _____

8. Open Purchase Order - P4310 (ZJDE0011) _____

9. Returned Material Authorization Revisions Version - P400511 (CSMS Only) _____

10. On Line Service Order Quote - P17717 (ZJDE0001) (CSMS Only) _____

11. Time Entry By Employee - P051121 (ZJDE0001) _____

WO Entry

1. Choose the work order entry program to call when adding or selecting a work order. This entry program will also decide which UBE will be called for printing.
'1' - Equipment Work Orders (P48011)
'2' - Service Work Orders (P17714)
'3' - Project Task Details (P48014)
'4' - Tenant Work Orders (P15248)
2. Enter the version of the selected work order entry to call. Leave blank to use default version defined in parentheses.
Work Order Entry (ZJDE0001)

Process

1. Enter a '1' to highlight the priority field within the grid. Leave blank to not highlight.
2. Customer Self-Service Functionality
Blank = Bypass Customer Self-Service functionality.
1 = Activate Customer Self-Service functionality for use in Java/HTML.
2 = Activate Customer Self-Service functionality for use in Windows.

Locating Work Orders Using Equipment Backlog

Use Equipment Backlog to review and analyze work order information for a particular piece of equipment or group of equipment. When you use Equipment Backlog, you can use any combination of information shared by equipment, such as equipment category codes, responsible business unit, and location. For example, you might want to analyze all failures associated with your heavy equipment. You can locate all work orders associated with equipment class 30 (Heavy Equipment), or you can further narrow your search to only type 5 (Emergency) work orders for heavy equipment. The more information that you enter, the more you narrow your search to specific work orders.

After you locate a work order or group of work orders, you can perform a variety of tasks. For example, you can do the following:

- Access a work order master
- Create a work order for unscheduled maintenance

► **To locate work orders using Equipment Backlog**

From the Equipment Work Orders menu (G1316), choose Equipment Backlog.

1. On Work With Equipment Work Orders, click the General tab and complete any of the following fields:
 - Skip To Description
 - Resp. Business Unit
 - Location
 - Skip To Equipment
2. Click the Equipment tab and complete any of the following fields:
 - Equipment Status
 - Company
 - Inventory Number
3. Click the following options:
 - Display Children
 - Display Disposed
4. Click the Codes tab and complete any of the category code fields. Additional equipment category code fields are on the Codes 2 tab.
5. Click the Work Order tab and complete any of the following optional fields:
 - Customer
 - Manager
 - Type
 - Priority
6. Click the WO Ranges tab and complete any of the following from and thru fields to further limit your search to specific work orders.
 - Status

- Completed Date
- Estimated Hours

7. Click Find.

Processing Options for Work With Equipment Work Orders (P13220)

Defaults 1

Enter a Work Order Status Range to default values into the Status fields on the form. Leave blank for no default.

1. From Status _____
2. Thru Status _____

Defaults 2

Enter the default values for Equipment Category Code selection. Leave blank to select all.

1. Major Accounting Class _____
2. Major Equipment Class _____
3. Manufacturer _____
4. Model Year _____
5. Usage Miles or Hours _____

Defaults 3

Enter the default values for Equipment Category Code selection. Leave blank to select all.

1. Category Code 6 _____
2. Category Code 7 _____
3. Category Code 8 _____
4. Category Code 9 _____
5. Category Code 10 _____

Versions

Enter the DREAM Writer version for the application. Leave blank to use version ZJDE0001.

1. Equipment Master (P1201) _____
2. Work Order Entry (P48011) _____

3. Work Order Backlog (P48201) _____

Process

Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

1. Select Product _____

Revising Work Orders

You can revise information about your work orders as they move through the life cycle. For example, you can change the start date of the work order if you do not have the labor resources or parts to complete the maintenance task. You can revise a variety of other information, including the following:

- Life cycle statuses
- Planned completion dates
- Percentage of work completed
- Work order priority

Revising work orders consists of the following tasks:

- Updating the life cycle information of a work order
- Reviewing the status history of a work order
- Swapping a component
- Revising the detail information of a work order

Updating the Life Cycle Information of a Work Order

The life cycle of a work order includes the steps or statuses through which a work order must pass in order to accurately communicate the progress of the maintenance tasks it represents. For example, the life cycle of a work order can include statuses that indicate the following:

- Work order entered
- Work order pending review
- Waiting for parts
- Work in progress

When you have completed all of the tasks requested on a work order, you can change the work order's status to complete. When you change the status of a work order to complete, the system provides a warning message that alerts you to any open purchase orders associated with the work order.

You can also close a work order to prevent transactions from being entered against it.

Updating the life cycle information of a work order includes the following tasks:

- Changing the status of a work order
- Closing a work order

► To change the status of a work order

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the steps for locating a work order.
2. On Work Order Details, click the Codes tab, then complete the following field and click OK:
 - Status

The screenshot shows a software window titled "Backlog Management - [Status Change]". The window has a menu bar with "File", "Edit", "Preferences", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", "Ago", "Links", "Displ...", "OLE...", and "Internet". The main content area is divided into two sections. The first section, "WO Status", contains the following fields: "WO Number" (400004), "Beginning Date" (7/13/00), "Beginning Time" (14:17:48), "WO Status" (MJ), and a "Remark" field. The second section, "Equipment Status", contains the following fields: "Equipment Number" (24766), "Description" (Vertical Mill), and "Current" and "New" status indicators. There are also checkboxes for "Update Children Status" and "Change Component".

3. On Status Change, complete the following optional fields to override any default values that the system provides:

- Beginning Date
 - Time Beginning
4. Complete the following optional field:
 - Remark
 5. To change the status of the equipment associated with the work order, complete the following field:
 - New
 6. Click the following option and click OK:
 - Update Children Status

Field	Explanation
Status	A user defined code (system 00, type SS) that describes the status of a work order.
New	A user defined code (12/ES) that identifies the equipment or disposal status of an asset, such as available, down, or disposed.
Update Children Status	This code specifies whether to update the status of the children (components) when a parent piece of equipment is updated. Valid values are: <ul style="list-style-type: none"> On Update the status of the children with the parent equipment Off Update only the parent equipment

► To close a work order

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the steps for locating a work order.
2. Click the Codes tab and enter a value other than blank in the following field:
 - Subledger Inactive Code
3. Click OK.

Reviewing the Status History of a Work Order

You can review a history of the statuses that you have assigned to a work order, such as new order, parts list attached, in progress, and so on. This is especially useful when you need to quickly review the status of a work order and determine how long a work order has been at various statuses in the work order life cycle. When you review the status history of a work order, you can also review the following:

- Remarks entered when you changed the work order status
- The beginning and ending dates and times of each status change
- The hours associated with each occurrence of a particular status

Processing options for Work With Status History allow you to revise existing remarks for any status change, enter a new remark if you did not do so when you changed the status, or protect the remarks field from future revisions.

► To review the status history of a work order

From the Equipment Work Orders menu (G1316), choose Status History.

On Work With Status History, complete the following field and click Find:

- W.O. Number

A history of each status assigned to the work order appears, from its creation to the present.

Processing Options for Status History (P1307)

Process

1. Enter a '1' to protect the Remarks field. Enter a '2' to protect the Remarks field if it is not blank. Leave blank to allow modifications to the Remarks field.

Protect Remarks _____

2. Enter the Work Day Calendar to use for the calculation of the number of days for Equipment Analysis.

Work Day Calendar _____

3. Enter the primary product for this version. Enter a '1' for Equipment and '2' for CSMS.

Select Product

Swapping a Component

To simplify moving equipment components from parent to parent, you can swap an equipment component for another on a work order. When you swap a component, you can specify changes that you want to make to the parent and component relationships for each component. For example, you might need to install a new exhaust fan in Production Line 1 while you service the old exhaust fan. You can update the parent and component relationships to indicate that the new exhaust fan is now a component of Production Line 1.

When you swap components, you can update the status of each component affected by the swap. For example, you can indicate a status of Down for the exhaust fan that you removed from Production Line 1 and a status of Working for the new exhaust fan that you installed.

You can also revise the responsible business unit of the old component. In addition, you can revise the location information for either component. When you revise the location information for the new component, you can specify a location or use the location of the component's parent.

► To swap a component

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row and click Find:
 - Document (Order No, Invoice, etc.)
2. Choose the record for the work order and click Select.
3. On Work Order Details, click the Codes tab and complete the following field:
 - Status
4. Click OK.
5. On Status Change, click the following option in the Equipment Status portion of the form:
 - Change Component

6. Complete the following optional field in the Equipment Status portion of the form and click OK:

- Equipment Status New

The screenshot shows a software window titled "Backlog Management - [Component Changeout]". The window has a menu bar with "File", "Edit", "Preferences", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Cancel", "Dismiss", "Apply", "Links", "Display", "OLE", and "Internet". The form is divided into three main sections:

- Parent Number:** A text box containing "24731" and a label "Machine Center".
- Update Old Component:**
 - Old Component:** A text box containing "24766" and a label "Vertical Mill".
 - Business Unit:** A dropdown menu with a red arrow icon.
 - Location:** A text box containing "M30" and a label "Eastern Manufacturing Center".
 - Create Work Order
- Update New Component:**
 - New Component:** An empty text box.
 - Location:** An empty text box.
 - Equipment Status:** An empty text box.
 - Children Status
 - Children Code
 - Business Unit

7. On Component Changeout, complete the following field:

- New Component

8. To update information for the old component, complete the following optional fields:

- Business Unit
- Location

9. Click the following option:

- Create Work Order

10. Complete the following optional fields for the new component:

- Location
- Equipment Status

11. Click the following options and click OK:

- Children Status

- Children Code
- Business Unit

Field	Explanation
Change Component	This code indicates whether you performed an equipment component changeout on the work order. Valid values are: On Component changeout was performed Off Component changeout was not performed
New Component	An identification code for an asset that you can enter in one of the following formats: <ol style="list-style-type: none"> 1 Asset number (a computer-assigned, 8-digit, numeric control number) 2 Unit number (a 12-character alphanumeric field) 3 Serial number (a 25-character alphanumeric field) <p>Every asset has an asset number. You can use unit number and serial number to further identify assets as needed.</p> <p>If this is a data entry field, the first character you enter indicates whether you are entering the primary (default) format that is defined for your system, or one of the other two formats. A special character (such as / or *) in the first position of this field indicates which asset number format you are using. You assign special characters to asset number formats on the Fixed Assets system constants form.</p>
Business Unit	An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant. <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>
Location	The current physical location of an asset. Location must be a valid business unit or job number in the Business Unit Master table (F0006).

Field	Explanation
Create Work Order	<p>This code determines whether the system creates a work order for the old component when you do a component changeout. When the system creates a work order, it uses default values from the processing options from the ZJDE0001 version of Work Order Entry (P48011). Valid values are:</p> <p>blank Do not create a work order 1 Create a work order</p> <p>For OneWorld: On Create a work order Off Do not create a work order</p>
Children Status	<p>This code specifies whether to update the status of the children (components) when a parent piece of equipment is updated. Valid values are:</p> <p>On Update the status of the children with the parent equipment Off Update only the parent equipment</p>
Children Code	<p>This code indicates whether the children of the component being changed-out stay with the component. Valid values are:</p> <p>On Attach children to the new component Off Do not attach children to the new component</p>
Business Unit	<p>This code determines whether to change the responsible business unit of the equipment components to the parent's responsible business unit. Valid values are:</p> <p>On Change responsible business unit Off Do not change responsible business unit</p>

See Also

- *Locating Work Orders*
- *Updating the Life Cycle Information of a Work Order*
- *Creating Corrective Work Orders* for the processing options for this program

Revising the Detail Information of a Work Order

After you create a work order, you can revise any field on the order except for the work order number.

► **To revise the detail information of a work order**

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the steps to locate a work order.
2. On Work Order Details, revise any of the input-capable fields as necessary and click OK.

You can click any of the tabs to access fields that you need to revise.

See Also

- *Locating Work Orders*

Reviewing Work Order Parts Lists

Review work order parts lists to view the most current information about the parts requirements of your work orders. Use Parts List Inquiry to review information for individual work orders or a selection of related work orders. You can review the following:

- Parts requirements based on work order status
- Parts requirements based on the start date
- Parts with a negative availability

► **To review work order parts lists**

From the Equipment Work Orders menu (G1316), choose Parts List Inquiry.

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

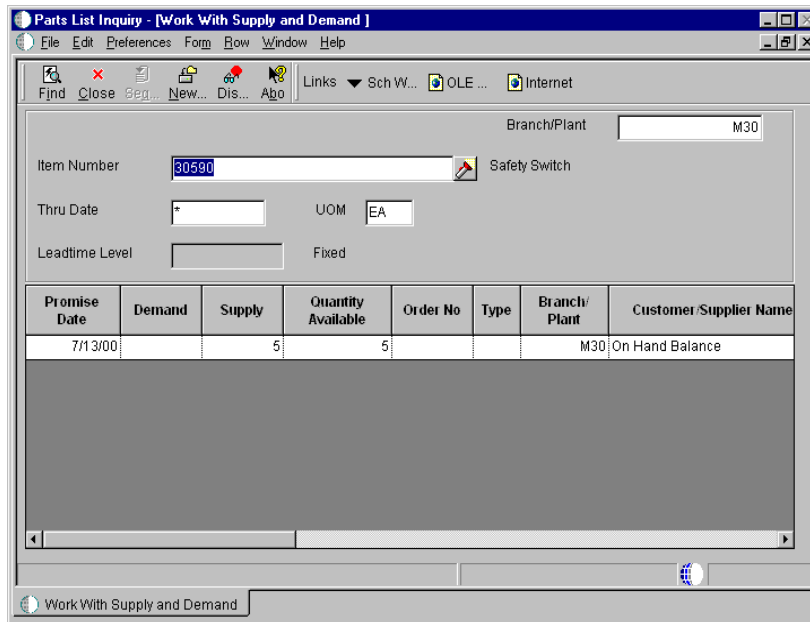
You can search for parts information based on a work order number or on a combination of fields on the Additional Selection Criteria form, but not on both.

2. From the Form menu, choose Additional Selection.

The screenshot shows a software dialog box titled "Parts List Inquiry - [Additional Selection Criteria]". It features a standard menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu is a toolbar with icons for "Close", "Seg...", "New...", "Dis...", "Abo", "Links", "OK", "OLE...", and "Internet". The main content area is divided into two sections. The top section contains input fields for "Address Number", "Business Unit", "Asset Number", "WO Start Date", "From Status", and "Thru Status". The bottom section contains ten "Category" fields, labeled "Category 01" through "Category 10", each with a dropdown menu.

3. On Additional Selection Criteria, complete any combination of the following fields to search for parts associated with multiple work orders:
 - Address Number
 - Business Unit
 - Asset Number
 - WO Start Date
 - From Status
 - Thru Status
4. Complete any of the optional category code fields to further limit your search to specific work orders and then click OK.
5. On Work With Work Order Parts List, complete the following fields and click Find:
 - Requirements
 - Availability
6. To determine which work orders are creating a demand for a part, choose a record and then choose Supply and Demand Inquiry from the Row menu.

The system displays Work With Supply and Demand, from which you can review the associated work orders.



Field	Explanation
Address Number	<p>A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, a location, and any other address book members.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This address book number corresponds to the address book number entered in the AN8 field on the work order header.</p>
Requirements	<p>This field indicates whether to display all parts or only those parts with a requirement.</p> <ol style="list-style-type: none"> 1 Display all parts. 2 Display only those parts with a requirement.
Availability	<p>This field indicates whether to display all parts or only those parts with a negative availability.</p> <ol style="list-style-type: none"> 1 Display all parts. 2 Display only those parts with a negative availability.

Processing Options for Work Order Parts List Inquiry (P3121)

Versions

If blank, version 'ZJDE0001' will be used.

1. Purchase Order Inquiry Version _____
2. Supply/Demand Version _____

Purchasing Parts for a Work Order

You can purchase parts for a work order by creating purchase orders directly from the work order parts list. This is particularly useful if a maintenance task requires parts that you do not usually keep in stock, such as unusually costly parts or parts that have long order lead times.

When you create purchase orders directly from the work order parts list, you can use processing options to specify the initial status of the purchase order, as well as the approval route for the purchase order. After the system creates the purchase order, the purchase order number and document type appear in the work order parts list.

When you create a purchase order for a piece of equipment for which you have defined a warranty service type, the system displays a warning message to alert you that a warranty is in effect.

Before You Begin

- Verify that the processing options for Work Order Parts List (P3111) are set to allow you to create purchase orders directly from the work order parts list.

See Also

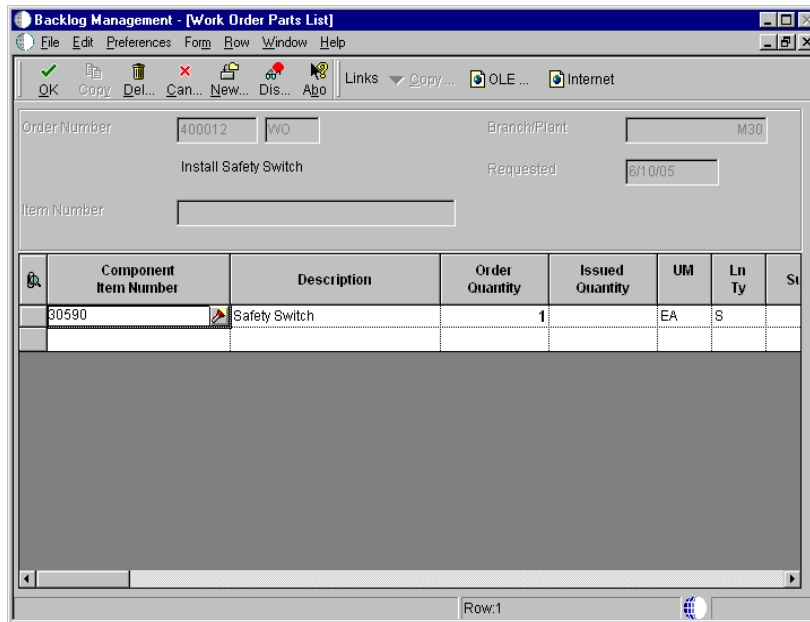
- *Creating an Equipment PM Schedule* for more information about creating PM service types for equipment under warranty

► To purchase parts for a work order

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the following field in the Query by Example row to locate the work order:
 - Document (Order No, Invoice, etc.)
2. Choose the work order and then choose Parts List from the Row menu.

You can also access the work order parts list directly from Work Order Details.



3. On Work Order Parts List, complete the following field in the detail area for each part that you want to purchase:

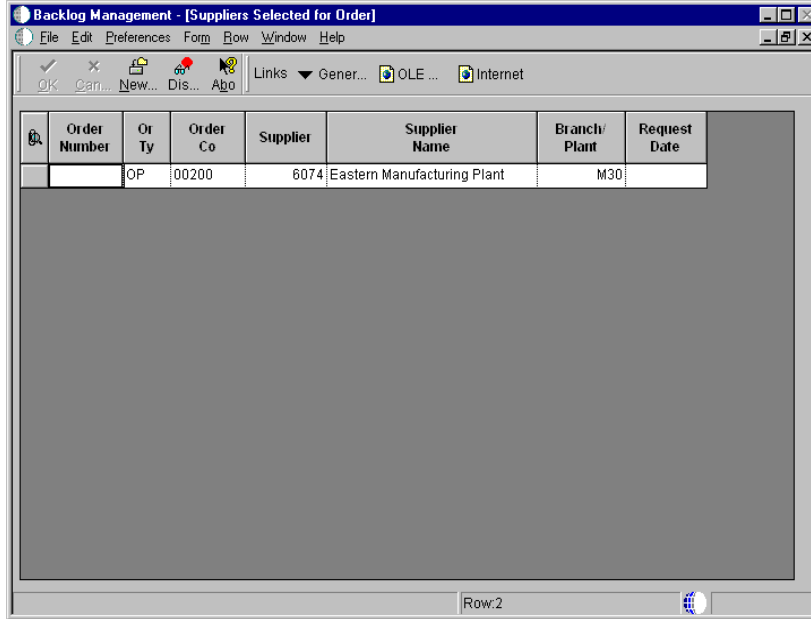
- Customer

This field might already contain a value. You can accept this value or enter a different supplier.

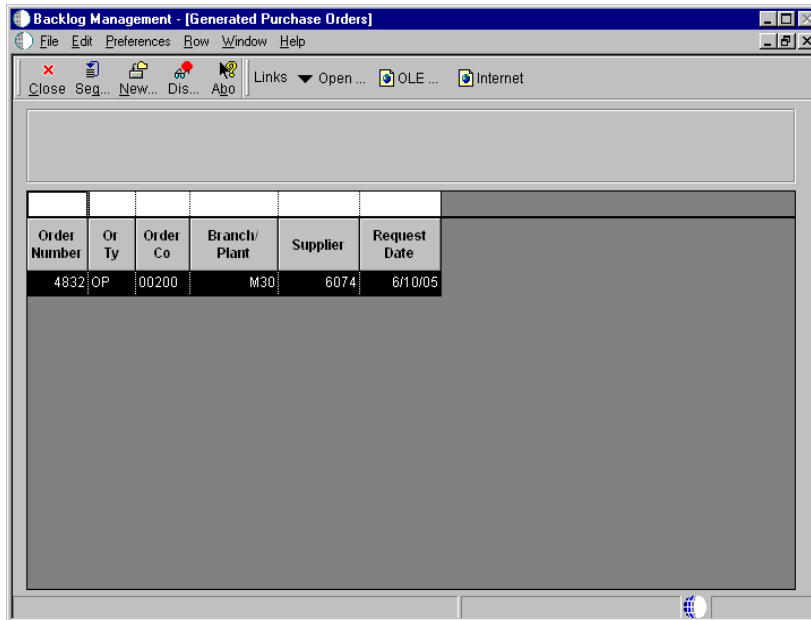
4. For each part that you want to purchase, choose the record and then choose Create PO from the Row menu.

You can select multiple parts records. The system processes each row selected.

5. Press OK.



- On Suppliers Selected For Order, choose Generate Order(s) from the Form menu.



Generated Purchase Orders appears.

- To review the purchase order, choose the record and then choose Open Order Inquiry from the Row menu.

Order Number	Quantity To Receive	UM	Amount To Receive	Ship To	Or Ty	Order Co	Change Order	Supplier
4832	1	EA	10.00	6074	OP	00200	000	6074 Easte

Work With Work Order Details appears.

Related Tasks

Purchasing parts on a recurring basis

When you need to purchase parts for which you have a recurring need, such as parts for PM work orders, you can create purchase orders using the Procurement system or you can generate purchase orders using the parts planning features in Equipment/Plant Maintenance.

See *Entering Order Header Information* and *Entering Order Detail Information* in the *Procurement Guide* for more information about creating purchase orders.

Printing Work Orders

You print work orders when you need a hard copy of a work order or group of work orders. You can print individual work orders directly from Backlog Management, or you can run the Print Work Orders program to print multiple work orders according to your data selections.

Printing work orders consists of the following tasks:

- Printing a single work order

- Printing multiple work orders

Before You Begin

- Set up Default Locations and Printer. See *Defining Default Location and Printers*.

Printing a Single Work Order

Print single work orders when you need a copy of a specific work order. You use processing options to specify which version of the Maintenance Work Order Print program the system uses to print the order.

► To print a single work order

From the Equipment Work Orders menu (G1316), choose Backlog Management.

1. On Work With Work Orders, complete the steps to locate a work order.
2. Choose the record for the work order, and then choose Print WO (Print Work Order) from the Row menu.
3. On Printer Selection, click one of the following options to specify an orientation for the printed report, and then click OK:
 - Landscape
 - Portrait

See Also

- *Locating Work Orders Using Backlog Management* for the processing options for Work With Work Orders

Printing Multiple Work Orders

From the Equipment Work Orders menu (G1316), choose Print Work Orders.

You print work orders when you need a hard copy of a group of work orders. When you run Print Work Orders, you use data selections to specify which work orders to print or suppress. You then use processing options to specify the information that you want to print, such as whether to suppress dates associated

with work order record type information, suppress estimated hours associated with work order or to print equipment messages associated with a piece of equipment on the work order. In addition, you can enter record types to be printed with a work order. You can also specify whether the system changes the status of the work orders at the same time that it prints them.

To print multiple work orders, choose Print Work Orders. When you choose Print Work Orders, the system displays a versions list. The versions list includes a DEMO version that you can run or copy and revise for your business needs.

See Also

- R48425, *Print Work Orders* in the *Reports Guide* for a report sample

Processing Options for Maintenance Work Order Report (R48425)

Process

Enter a new status to update on the Work Order. Leave blank to not update the Work Order status. NOTE: This option will update the status on all Work Orders selected by the version.

1. Work Order Status _____

Print Options

Enter a '1' to suppress dates associated with the work order record type info. _____
Enter a '1' to suppress estimated hours associated with work order. _____
Enter a '1' to print equipment messages associated with piece of equipment on WO. _____
Enter a '1' to print Media Objects associated with the Work Order _____

Record Types

Enter Record Types to be printed with work order. List one after another on same line. The 'A' Record Type will always print. _____

Maintenance Planning

Maintenance Planning

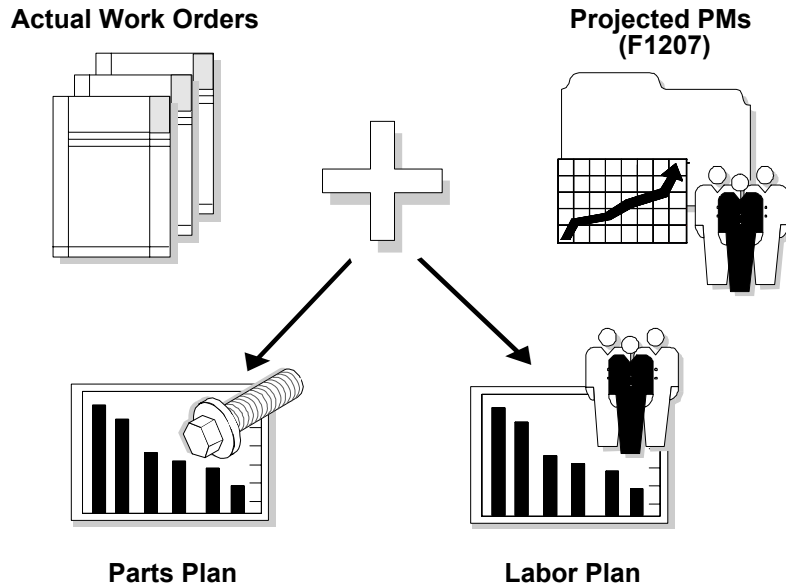
Use maintenance planning to accurately forecast parts and labor resources needed to complete your maintenance tasks. Use maintenance planning to minimize equipment downtime by ensuring that the necessary parts, materials, and maintenance personnel are available when a piece of equipment requires maintenance.

When you use maintenance planning, you define a range of maintenance work orders for which the system projects parts requirements and labor requirements. Additionally, you can integrate this information with forecasted (planned) work orders that the system generates when you run a preventive maintenance projection.

After the system generates a PM projection, you can do the following:

- Review information from the PM projection
- Generate a parts plan
- Respond to system recommendations for purchasing parts and materials
- Generate a labor plan
- Revise a labor plan to accommodate available resources

The following graphic shows the elements that the system uses to generate parts and labor plans:



This section describes features and functions that depend on the installation of the complete Equipment/Plant Management system. To be able to use Maintenance Planning, you must have purchased and installed the following systems:

- 30 - Product Data Management
- 31 - Shop Floor Management
- 33 - Resource and Capacity Planning
- 34 - Material Planning
- 40 - Inventory Base and Order Processing
- 41 - Inventory Management
- 43 - Procurement

Check with your system administrator to verify which systems you have purchased and installed.

Maintenance planning consists of the following tasks:

- Working with PM projections
- Generating a parts plan
- Reviewing the parts plan
- Generating a labor plan
- Working with the labor plan

PM Projections

When you run the PM projection, you can use the information that the system generates to help plan your maintenance activities. You specify the time period for which you want the system to forecast when equipment requires maintenance. The PM projection includes the following information:

- All equipment that requires maintenance
- Dates when the equipment will require maintenance
- Parts and materials required for the maintenance
- Estimated amount of time required to perform the maintenance

The Update PM Projections program uses information from the equipment masters and the equipments' preventive maintenance schedules to update the following tables:

PM Projections (F13411) This table stores the following information:

- Equipment numbers
- Service types associated with the equipment
- Projected start dates for each service type
- Estimated hours for each service type
- Estimated parts and labor costs
- Forecast type

Forecast (F3460) This table stores the following information:

- Standard parts list and routing instructions from the model work order associated with a PM
- Branch where parts are stocked
- Requested date for maintenance
- Forecast type
- Document type

Parts Plans

Use the parts plan to review the availability of required parts. When you generate a parts plan, the system generates messages that you should review to identify various parts planning needs. For example, you review parts messages to determine the quantity needed of a particular part at a future date. You can also direct the

system to create purchase orders for parts currently not on hand, but needed in the future.

Labor Plans

Use the labor plan to review the demands that maintenance tasks place on your labor resources. When you generate a labor plan, the system generates messages that alert you to over-capacity or under-capacity conditions. You can adjust your labor resources accordingly or reschedule selected maintenance tasks to alleviate the over-capacity or under-capacity conditions.

Working with PM Projections

You can use PM projections to collect and review detailed information about future maintenance tasks. For example, depending on the time period that you specify, you can review the following:

- All future maintenance for a piece of equipment or a class of equipment
- All future maintenance tasks by service type
- All future maintenance tasks at a specific location

Working with PM projections consists of the following tasks:

- Running the PM projection update
- Reviewing PM projections

Running the PM Projection Update

From the Maintenance Planning menu (G1322), choose Update PM Projections.

Run the Update PM Projections program to forecast parts and labor requirements for future PMs. When you run this program, you specify the dates for which you want the projection to apply.

The system uses information from the Asset Master Information table (F1201) and the Maintenance Schedule table (F1207; specifically, the estimated occurrences value and the last completed date for each service type) to determine when a piece of equipment will be due for maintenance. The system also uses parts and labor resource information from the model work order to determine future parts and labor requirements.

When you run Update PM Projections, the system updates the following tables:

PM Projections (F13411) This table provides information for Work With PM Projections and Print PM Projection.

Forecast table (F3460) The system uses values from this table to calculate parts and labor requirements for projected PMs.

Note: You must have purchased and installed Requirements Planning (system 34) and Capacity Requirements Planning (system 33) to use parts and labor planning functions. In addition, you must associate model work orders with PM schedules to supply the system with the necessary data to determine parts and labor requirements.

When you select Update PM Projections, the system displays a versions list. The versions list includes DEMO versions that you can run or copy and modify to suit your needs. When you run a version, the system displays Processing Option Revisions before submitting the job for processing.

After you select the appropriate processing options, the system displays a message that the job was submitted to batch.

Before You Begin

- Create model work orders for PM schedules. See *Creating a Model Work Order for a PM Service Type*.

See Also

- *Working With Batch Versions* in the *OneWorld Foundation Guide* for more information about running, copying, and changing batch versions
- See *Understanding User Defined Codes* for more information about setting up forecast types (34/DF)

Processing Options for Update PM Projections (R13411)

Defaults

1. Enter the From Date for PM Projections _____
2. Enter the Through Date for PM Projections _____
3. Enter the Forecast Type _____

What You Should Know About Processing Options

Forecast Type

Use Forecast Type to distinguish projections. For example, you can specify forecast types to distinguish manufacturing and maintenance projections. Within maintenance, you could specify forecast types to set up multiple projections based on the following:

- Short-term planning
- Long-term planning
- Area, such as production line 1, line 2, and so on
- Planner

See *Understanding User Defined Codes* for more information about setting up forecast types (34/DF).

Reviewing PM Projections

You can use Work With PM Projections to review detailed information about future PMs. For example, you can review the following:

- Projected dates for PMs
- Projected service types for specific pieces of equipment
- Estimated hours and amounts for labor and materials for each service type
- A summarized total of estimated hours and amounts for all service types that match the search criteria you enter

You can use any of the following types of information to limit the PM information that appears:

- Forecast type
- Schedule dates
- Service types
- Equipment location
- Equipment number
- Equipment category codes

► To review PM projections

From the Maintenance Planning menu (G1322), choose PM Projections.

1. On Work With PM Projections, click the General tab and complete the following field:
 - Forecast Type
2. To limit your search to specific PM projection information, complete any of the following optional fields:
 - Service Type
 - Scheduled Date From
 - Scheduled Date Thru.
 - Equipment Number
3. Click the Equipment tab and complete the following optional field to further limit your search to specific PM projection information:
 - Location
4. Complete any of the equipment category code fields.
5. Click the Equipment 2 tab and complete any additional equipment category code fields.
6. Click Find.

Field	Explanation
Forecast Type	A user defined code (34/DF) that indicates one of the following: <ul style="list-style-type: none">• The forecasting method used to calculate the numbers displayed about the item• The actual historical information about the item
Service Type	A user defined code (system 12, type ST) that describes the preventive maintenance service to be performed. Examples of codes include CLUTCH for adjust clutch, OIL for change oil, 10H for 10 hour service, and so forth.

Related Tasks

Reviewing and revising projected PMs

You can review and revise information about projected PMs. From the MPS Daily Operations menu (G3412), choose Enter/Change Detail Forecast. Work With Forecasts appears. From this form you can access Detail Forecast Revisions, from which you can:

- Manually revise forecast information for an existing projection
- Add or delete a parts forecast
- Enter descriptive text for the forecast

You can access forecasts that you want to revise by equipment number, branch plant, forecast type, or any combination of these elements. If your forecast is extensive, you can specify a beginning request date to limit the amount of information that the system displays.

Note: When you revise forecast information, the changes you make only affect the Forecast table (F3460). They do not affect the PM Projections table (F13411).

See *Revising Detail Forecasts* in the *Forecasting Guide* for more information.

Generating a Parts Plan

From the Material Planning menu (G1323), choose Plan Generation.

You can generate a parts plan to assist you in planning parts and materials requirements for work orders. When you generate a parts plan, the system compares the parts inventory you have on hand with the parts needed for work orders. The system determines parts requirements for actual work orders, such as work orders generated for corrective maintenance and forecasted (planned) work orders.

Based on this comparison, the system determines the availability of the parts needed for work orders. The system also generates messages that you can review to ensure that the right parts are available when they are needed. The messages include the following recommendations:

- Which parts and materials you should order
- When you should place orders for parts
- What quantity you should order
- Whether you should cancel, defer, expedite, or increase existing orders

You use processing options to define a planning horizon for the parts plan. A planning horizon refers to the period for which a plan applies and how the period is ordered for display purposes. You can include up to 52 periods in a planning horizon. For example, you can generate a parts plan with a six-month planning horizon ordered as follows:

- Days - 14
- Weeks - 7
- Months - 4

When you review part availability by time, the system uses the planning horizon as the basis for the parts projection information it displays.

When you use processing options for generating a parts plan, J.D. Edwards recommends the following:

- Equipment/Plant Maintenance users set the Generation Mode field to 2 (gross regeneration).

- Equipment/Plant Maintenance users set the Generation type field to 4 (MRP with/without MPS).
- Equipment/Plant Maintenance users choose the default value, QT, in the UCD Type field. This user defined code table contains all quantity types.

See *Setting Up Parts Planning Codes* for more information on quantity types and the MRP Calculation Display table.

Every time you generate a parts plan, the system deletes all previous messages regarding parts availability. The system also deletes all detail messages for the parts you specify, except messages that you enter manually and messages that you direct the system to hold.

Note: In order for the system to include an inventory part when the system calculates part availability, the inventory part must have an item balance record.

To ensure accurate information when you generate a parts plan, other system users should not access programs that use inventory or planning tables. When you run Plan Generation, Processing Option Revisions appears before submitting the job for processing.

Before You Begin

- Verify that the workday calendar has been set up for the time period for which you want to generate the parts plan. If your parts planning requires order lead time, you must account for backward and forward scheduling to accommodate the lead time. See *Setting Up the Workday Calendar*.

See Also

- *Generating a Master Schedule* in the *Manufacturing and Distribution Planning Guide* for more information about defining a plan generation, and for the processing options for this program
- *Working With Batch Versions* in the *One World Foundation Guide* for more information about running, copying, and changing batch versions
- *Working with Parts Detail Messages* for more information about holding messages or entering messages manually
- *Appendix A: Inventory Concepts and Setup* for more information about inventory records

What You Should Know About Processing Options

Generation Mode J.D. Edwards recommends that Equipment/Plant Maintenance users set this processing option to 2 (gross regeneration).

Generation Type J.D. Edwards recommends that Equipment/Plant Maintenance users set this processing option to 4 (MRP with/without MPS).

UDC Type J.D. Edwards recommends that Equipment/Plant Maintenance users choose the default quantity type QT. This user defined code table contains all quantity types.

See *Setting Up Parts Planning Codes* for more information on quantity types and the MRP Calculation Display table.

Reviewing the Parts Plan

When the system generates a parts plan, it updates several forms and generates a variety of messages. You can review these forms and messages to plan the parts requirements for your maintenance tasks. The forms and messages include the following types of information:

Planning family

You can view messages by planning family or individuals within a planning family. You use planning families to group individuals responsible for parts. For example, you can review messages pertaining to the following:

- Parts for which the maintenance planning family is responsible
- Parts for which only the buyer is responsible

Inventory parts details

You can review parts detail messages when you want to review detailed ordering information about a particular part. The messages include recommendations about when you should order the part. In addition, you can review the following:

- Inventory locations where the part is needed
- Required dates
- Part suppliers

After you review the messages, you can take appropriate action on the messages.

Inventory parts availability by time

You can review the activity affecting an inventory part's availability over a time period that you specify. You can review the activity in daily, weekly, or monthly increments. Activity that affects availability includes the following:

- Beginning available amounts
- Supplies created by purchase orders
- Demands created by maintenance work orders

Supply and demand	You can review detailed supply and demand information for a particular part. For example, you can review detailed information about a work order that creates a demand for a part or a purchase order that creates a supply for a part.
Component parts	You can review component part information when you want to review all of the standard parts lists (or bills of material) for which a component part is used.
Part cross-reference	You can review part cross-reference information when you want to determine which parts can be used as substitutions or replacements for parts that are not available. You can also review substitute suppliers.

Reviewing a parts plan consists of the following tasks:

- Reviewing parts by planning family
- Working with parts detail messages
- Reviewing parts availability by time
- Reviewing part supply and demand
- Reviewing component part information
- Reviewing and revising part cross-references

Reviewing Parts by Planning Family

You can review information about parts according to the person or planning family responsible for the parts. For example, you can review parts information by the following:

- Planner
- Buyer
- Supplier
- Master planning family

When you choose the person or planning family for which you want to review parts information, all parts associated with the person or planning family that have outstanding messages appear. You can specify the type of messages that you want to appear.

► **To review parts by planning family**

From the Material Planning menu (G1323), choose Review Planning Family.

1. On Work with Message Summary, complete the following field:
 - Business Unit

2. To limit your search to a particular planning family, complete any of the following optional fields:
 - Planner Number
 - Buyer Number
 - Primary / Last Supplier Number
 - Master Planning Family

3. To limit the amount of information that appears, complete any combination of the following optional fields and click Find:
 - Thru Date
 - Message Type
 - Planning Code
 - Stocking Type
 - All Items

Field	Explanation
Planner Number	The address number of the material planner for this item.
Buyer Number	The address book number of the person responsible for setting up and maintaining the correct stocking levels for the item.
Primary Supplier	The address book number of the preferred provider of this item. You can enter the number for the supplier or you can have the system enter it each time that you receive the item from a supplier. You specify whether the system enters the supplier using processing options for Enter Receipts.

Field	Explanation
Planning Family	<p>A user defined code (41/P4) that represents an item property type or classification, such as commodity type or planning family. The system uses this code to sort and process like items.</p> <p>This field is one of six classification categories available primarily for purchasing purposes.</p>
Message Type	<p>A code that distinguishes different messages generated in the Distribution Requirements Planning/Master Production Schedule/Material Requirements Planning system. Valid codes are:</p> <ul style="list-style-type: none"> A Warning messages (user controlled) B Order and expedite C Cancel D Defer E Expedite F Frozen order (user controlled) G Increase order quantity to (user controlled) H Decrease rate quantity to I Increase rate quantity to L Decrease order quantity to (user controlled) M Manual reminder N Create rate O Order P Firm order S FPO adjustment suggestion T Past due order
Pln Cod	<p>A code that indicates how Master Production Schedule (MPS), Material Requirements Planning (MRP), or Distribution Requirements Planning (DRP) processes this item. Valid codes are:</p> <ul style="list-style-type: none"> 0 Not Planned by MPS, MRP, or DRP 1 Planned by MPS or DRP 2 Planned by MRP 3 Planned by MRP with additional independent forecast 4 Planned by MPS, Parent in Planning Bill 5 Planned by MPS, Component in Planning Bill <p>These codes are hard-coded.</p> <p>.....<i>Form-specific information</i>.....</p> <p>For Equipment/Plant Management users: Enter a 2 for Maintenance Planning.</p>

Field	Explanation
Stocking Type	<p>A user defined code (41/I) that indicates how you stock an item, for example, as finished goods or as raw materials. The following stocking types are hard-coded and you should not change them:</p> <ul style="list-style-type: none"> 0 Phantom item B Bulk floor stock C Configured item E Emergency/corrective maintenance F Feature K Kit parent item N Nonstock <p>The first character of Description 2 in the user defined code table indicates if the item is purchased (P) or manufactured (M).</p>
All Items	A code used to select All or a Selected part of a list of items.

Processing Options for Message Summary (P3401)

Versions 1

Enter the Versions for the following programs. Default = ZJDE0001.

- 1. Manufacturing Work Bench Version _____
- 2. Message Detail Version _____
- 3. Item Availability Version _____
- 4. Time Series Version _____
- 5. Forecast Maintenance Version _____
- 6. Supplier Schedule Version _____

Versions 2

Enter the Versions for the following programs. Default = ZJDE0001.

- 1. Supplier Master Version _____
- 2. Item Branch (P41026B) _____

Defaults

Enter MPS Type or ' ' for all.

- 1. Master Planning Type Code _____

Taxes

Enter '1' to default Tax area from Ship to Address. If Blanks, Tax area will

be from Supplier address number.

1. Tax Area flag _____

Working with Parts Detail Messages

When you generate a parts plan, the system produces messages that identify when planning conflicts exist. For example, depending on how you set up your system, if a part's usage exceeds availability, the system produces an order message. You can process the messages according to the system's recommendations, delete them, or clear them. You can also create your own messages to serve as reminders about particular parts.

The types of messages that the system produces are determined by user defined codes (34/MT). You can add or change any message that appears on Item Detail Messages. You can also direct the system to perform actions on messages that you add or change. Standard message types include warning messages and planned purchase order messages. Other messages include the following:

- Expedite an order
- Defer an order
- Increase an order
- Decrease an order

After you review a message, you can do one of the following:

Process the message	Use this command to resolve the planning conflict. When you direct the system to process an order message, it carries out actions to resolve the planning conflict. For example, when you direct the system to process a planned purchase order message, it automatically creates a purchase requisition.
Delete the message	Use this command to delete obsolete messages.
Clear the message	Use this command to prevent the message from appearing. You can retrieve a cleared message by choosing Processed Messages from the View Menu.

Working with parts detail messages consists of the following tasks:

- Reviewing parts detail messages
- Creating a purchase request for a part

See Also

- *Setting Up Message Types for DRP, MPS, MRP, and RCCP* in the *Manufacturing and Distribution Planning Guide* for more information about adding or changing messages

► **To review parts detail messages**

From the Material Planning menu (G1323), choose Item Detail Messages.

1. On Work With Detail Messages, complete the following fields:

- Demand Branch
- Item Number

Depending on how you set processing options, the Branch field appears as either the Supply Branch or the Demand Branch. You can override the processing options by choosing either Supply Branch or Demand Branch from the View menu.

2. To limit the information that appears, choose one of the following options from the View menu:

- All Messages
- Processed Messages
- Current Messages

3. To further limit the information that appears, complete any of the following optional fields and click Find.

- Planner
- Buyer
- Planning Family
- Planning Code

Field	Explanation
Planner	The address number of the material planner for this item.
Buyer	The address book number of the person responsible for setting up and maintaining the correct stocking levels for the item.

Field	Explanation
Planning Family	<p>A user defined code (41/P4) that represents an item property type or classification, such as commodity type or planning family. The system uses this code to sort and process like items.</p> <p>This field is one of six classification categories available primarily for purchasing purposes.</p>
Planning Code	<p>A code that indicates how Master Production Schedule (MPS), Material Requirements Planning (MRP), or Distribution Requirements Planning (DRP) processes this item. Valid codes are:</p> <ul style="list-style-type: none">0 Not Planned by MPS, MRP, or DRP1 Planned by MPS or DRP2 Planned by MRP3 Planned by MRP with additional independent forecast4 Planned by MPS, Parent in Planning Bill5 Planned by MPS, Component in Planning Bill <p>These codes are hard-coded.</p>

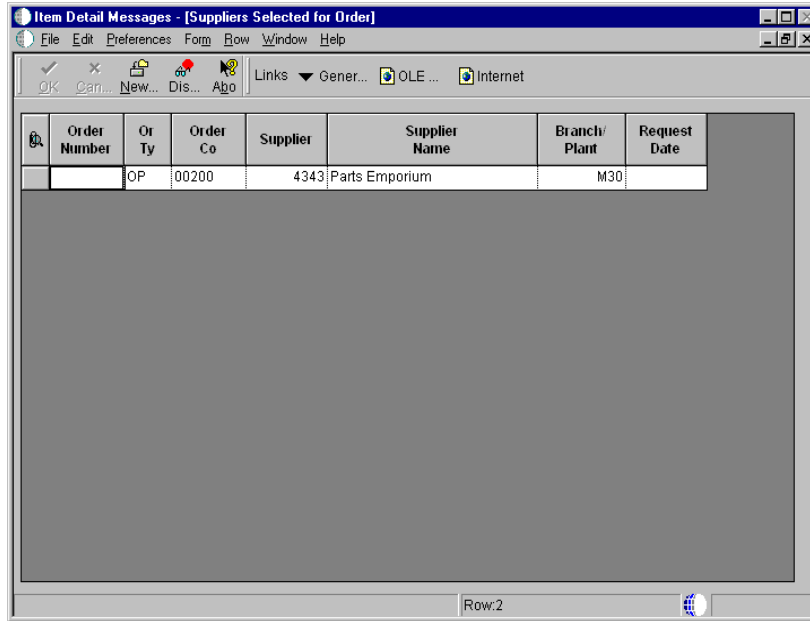
► To create a purchase request for a part

From the Material Planning menu (G1323), choose Item Detail Messages.

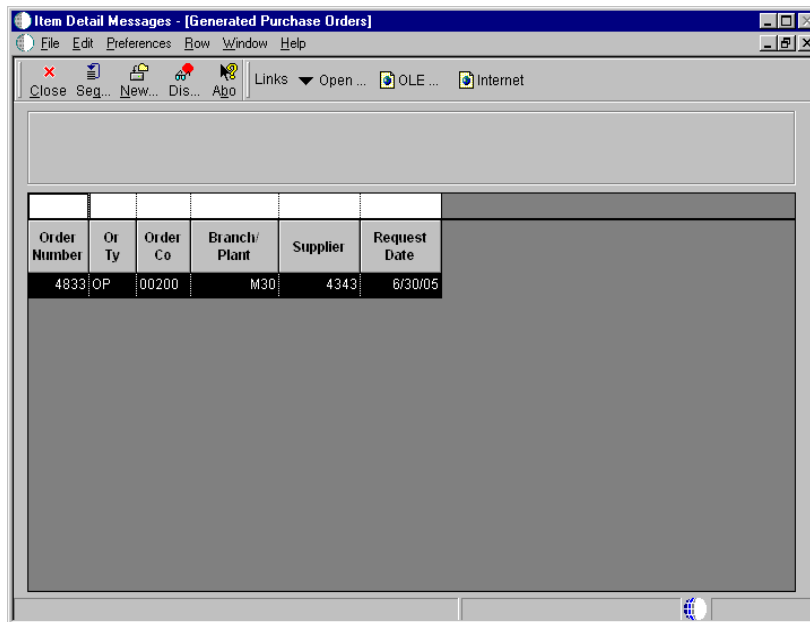
1. On Work With Detail Messages, follow the steps to review parts detail messages.
2. To create a purchase request for a part, choose its record, and then choose Process Message(s) from the Row menu.

The message type associated with the part must be a message type for which the system will create a purchase request. For example, if the message that appears for a part is a manual reminder message, the system will not create a purchase request. For more information about message types for which the system will create a purchase request, see *Processing Purchase Order Messages for MRP* in the *Manufacturing and Distribution Planning Guide*.

The Suppliers Selected for Order form appears.



- On Suppliers Selected for Order, choose Generate Order(s) from the Form menu.



Generated Purchase Orders appears, from which you can review the purchase request number.

See Also

- *Working With Messages* in the *Manufacturing and Distribution Guide* for the processing options for this program

Reviewing Parts Availability by Time

Use Item Availability by Time when you need to see a projection of inventory activity for a particular maintenance part. The following information appears:

- Projected activity for the part in daily, weekly, or monthly increments, depending on how you set up your planning horizon
- Abbreviations for the activities that affect a part's availability, such as scheduled receipts, demand requirements, and so on

The system provides information about part availability that suggests two scenarios. Row descriptions ending in U (unadjusted), such as BAU, show part availability with the assumption that any outstanding action messages will not be implemented by the responsible planner. Row descriptions that do not end in U, such as BA, show part availability with the assumption that action messages will be implemented.

The system derives information for Item Availability by Time from your most recent parts plan generation. You can run a single part plan regeneration directly from the Work With Time Series form to ensure that you have the most recent inventory information for the part.

► To review parts availability by time

From the Material Planning menu (G1323), choose Item Availability by Time.

1. On Work With Time Series, complete the following fields:
 - Item Number
 - Business Unit
2. To review only rows that contain data, click the following option:
 - Suppress Blank Lines
3. Complete the following optional field and click Find:

- Date - Start (Julian)

When you review parts information on Item Availability by Time, abbreviated row descriptions appear.

4. To view complete descriptions of the rows, choose Message Detail from the Form menu.

See Also

- *Generating a Parts Plan* for more information about the planning horizon
- *Reviewing Multi-Facility Time Series* in the *Manufacturing and Distribution Planning Guide* for the processing options for this program

Reviewing Part Supply and Demand

You can review the individual supply and demand by date for a particular maintenance part. You can also review the documents that affect the supply and demand for a part, and take appropriate action.

For example, on a particular date, the system might indicate a demand for a part, but no supply. You can review the work order that is creating the demand for the part and create a purchase order to satisfy the demand.

You determine which type of documents the system includes when it calculates supply and demand for a part by setting up supply and demand inclusion rules.

► To review part supply and demand

From the Material Planning menu (G1323), choose Supply and Demand Inquiry.

1. On Work With Supply and Demand, complete the following fields:
 - Item Number
 - Business Unit
2. Complete the following optional field and click Find:
 - Date - Requested
3. To review the bill of material for the part, select the record and choose BOM Availability from the Form menu.

The system displays Parts Availability - Multi-Level Indented, from which you can review the availability of component parts of an item, such as BOM Inquiry, Parts Availability, or Leadtime Inquiry.

4. To return to Work With Supply and Demand, click Close.
5. On Work With Supply and Demand, to review information about the work order that is creating a demand for a part, choose the record for the part, and then choose Work Order Inquiry from the Row menu.

The system displays the Work With Manufacturing Work Orders form. This version might limit the work order information that you can review or revise.

See Also

- *Setting Up Supply and Demand Inclusion Rules*
- *Reviewing MRP Supply and Demand* in the *Manufacturing and Distribution Planning Guide* for the processing options for this program

Reviewing Component Part Information

You can review a wide variety of information for all parent assemblies or kits for which a maintenance part is a component. This is particularly useful if you need to locate an alternate source for a component part.

You can also review a list of the work orders that include a particular component on the work order parts list or the pieces of equipment that use a particular part. This is useful if, for example, you have critical information such as recall information, about a part, and you need to quickly determine where you have installed the part.

Reviewing component part information consists of the following tasks:

- Reviewing parent information for component parts
- Reviewing where used information for components

Reviewing Parent Information for Component Parts

You can review information for all parent assemblies or kits for which a maintenance part is a component. This is particularly useful if you need to locate an alternate source for a component part.

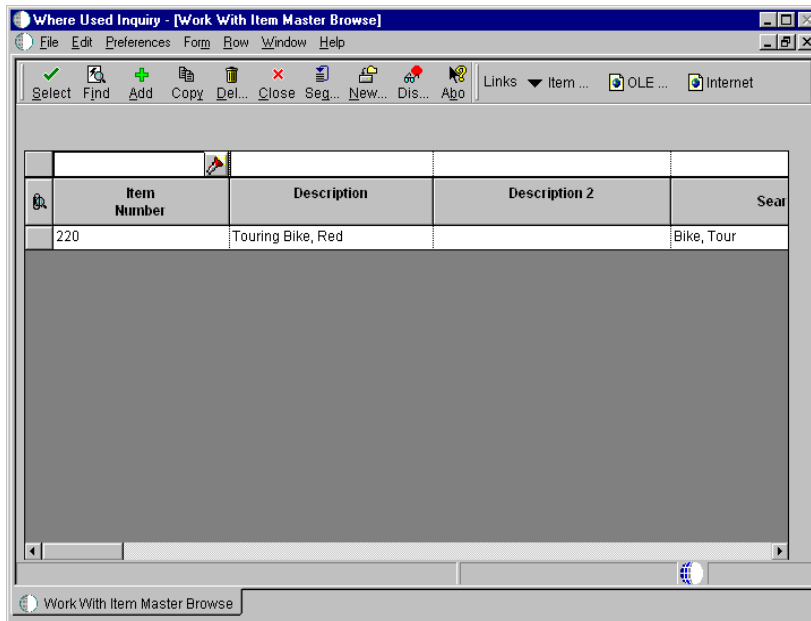
When you review parent information for component parts, the system shows each bill of material that includes the component part. The current parent information for a component part appears, but you can request that the system show historical or future parent information. You can also review the following:

- Effective dates of each bill of material
- Inventory master information for each parent part

► **To review parent information for component parts**

From the Material Planning menu (G1323), choose Where Used Inquiry.

1. On Work With Bill of Material Where Used, complete the following fields:
 - Component Branch / Plant
 - Component Number
2. To limit the information that appears, complete the following optional field and click Find:
 - As of Date
3. To review additional information from the standard parts list, choose the record for the parent part and then choose Item Master from the Row menu.



Work With Item Master Browse appears, from which you can access a variety of information about the parent part.

Field	Explanation
-------	-------------

Field	Explanation
Component Branch / Plant	A secondary or lower-level business unit. The system uses the value that you enter to indicate that a branch or plant contains several subordinate departments or jobs. For example, assume that the component branch is named MMCU. The structure of MMCU might be as follows: Branch/Plant - (MMCU) Dept A - (MCU) Dept B - (MCU) Job 123 - (MCU)
Component Number	A number that the system assigns to an item. It can be in short, long, or third item number format. For process work orders, the item number is the process.
As of Date	The date used for effectivity checking. Enter a specific date to display documents (orders, bills of material, routings, as applicable) that are effective on or after that date. The current system date is the default, but you can enter any future or past date.

Reviewing Where Used Information for Components

You can review a list of the work orders that include a particular component on the work order parts list, or a list of the equipment that uses a particular component. This is useful if, for example, you have critical information about a part, such as recall information, and you need to quickly determine where you have installed the part. In addition, you can review the bills of material that include a particular component, either by the pieces of equipment or the work orders for which the bill of material applies.

► To review where used information for components

From the Material Planning menu (G1323), choose Where Used Inquiry.

1. On Work With Bill of Material Where Used, complete the following fields:
 - Component Branch / Plant
 - Component Number
2. To limit the information that appears, complete the following optional field and click Find:
 - As of Date

3. Do one of the following:
 - To review the pieces of equipment that use the component part, choose Equipment from the Form menu.
 - To review the work orders that use the component part, choose Work Order from the Form menu.
 - To review the pieces of equipment that use a particular parent bill of material for a component, choose the appropriate row, and then choose Equipment from the Row menu.
 - To review the work orders that use a particular parent bill of material for a component, choose the appropriate row, and then choose Equipment from the Row menu.

The information that appears corresponds to the action that you choose above. In the example form that follows, all work orders that use a particular component part are shown.

Order Number	Description	Equipment Number	Inventory Number	WO St
400012	Install Safety Switch	24820	700015	MH
450001	Replace Intake Filters	0	61487	NB
450001	Replace Intake Filters	0	61487	NB
450001	Replace Intake Filters	0	61495	NB
450001	Replace Intake Filters	0	61495	NB
450010	Replace Lamps	0	90000	NB
450028	Replace Dryer Filter	0	61508	NB
450044	Lubricate Air Compressor	0	60804	NB
450079	Replace Cutting Oil	0	90018	NB
450079	Replace Cutting Oil	0	90018	NB
450095	Change Oils in Forklift	0	90026	NB
450108	Lubricate Forklift	0	90034	NB
451004	Touring Bike, Red	0	60062	30

Processing Options for Bill of Material Where Used (P30201)

Defaults

1. Enter the Screen Default type: '1'
Single Level, '2' Multi-Level, '3'
Multi-Level Indented

Mode - Processing

2. Enter the default Bill Type to be used. If left blank, 'M' will be used for all Bill Types

Default Type Bill of Material _____

Versions

1. Enter the version to execute of the following programs. If left blank, the "ZJDE0001" will execute.

Item Search (P41200) _____

Material Where Used Print (R30420) _____

Item Master (P4101B) _____

Where Used Inquiry (P13226) _____

Manufacturing Work Order _____

Processing (P48013) _____

Bill of Material Inquiry (P30200) _____

Reviewing and Revising Part Cross-References

You can use part cross-references to track your maintenance parts in a variety of ways. When you set up part cross-references, you assign cross-reference types to each part. For example, you can assign cross-reference types for the following:

- Replacements for discontinued parts
- Substitute parts
- Alternate suppliers
- Alternate part numbers

You can make changes to cross-reference information as new information becomes available. This is particularly useful when you need to access the most current information about a part. You can add or revise the following cross-reference information for a part:

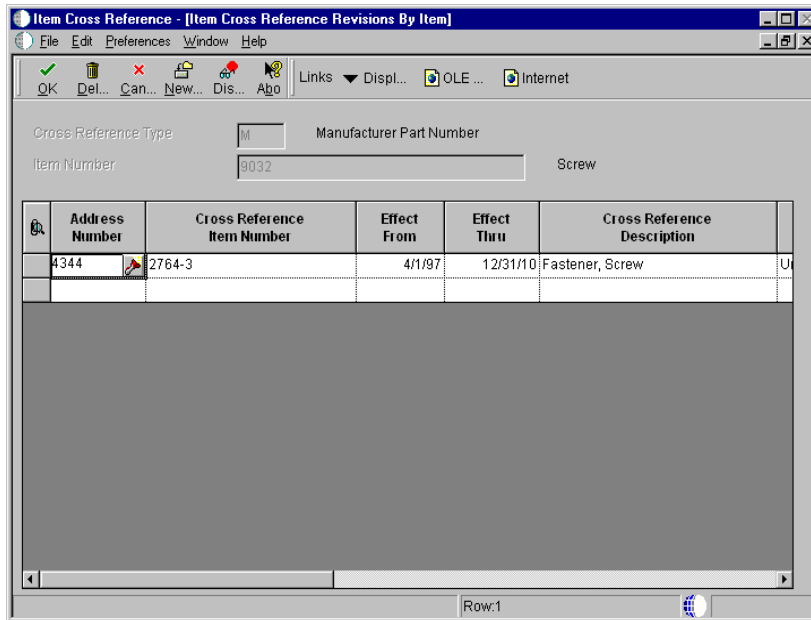
- Cross-reference type code
- Address number
- Cross-reference part number
- Cross-reference description

► To review and revise part cross-references

From the Material Planning menu (G1323), choose Item Cross Reference.

1. On Work With Item Cross Reference, complete the following field and click Find to locate cross-reference information for a part:
 - Item Number

2. Choose the record for the item that you want to revise and then choose Cross Reference by Item from the Row menu.



3. On Item Cross Reference Revisions By Item, revise any of the appropriate fields and click OK.

Processing Options for Item Cross Reference (P4104)

Processing

Enter '1' if you wish to use the revisions form by Item. Leave blank to use the revisions form by Address. Note that this option does NOT affect the display of the Browse Form.

1. Revise by Item or Address
-

Generating a Labor Plan

From the Labor Planning menu (G1324), choose Labor Plan Generation.

You can generate a labor plan to assist you in planning labor resources for your maintenance tasks. When you generate a labor plan, the system compares available labor resources with the labor resources required by forecasted (planned) work orders and actual (firm) work orders. Based on this comparison, the system generates messages that alert you to over-capacity and under-capacity conditions.

Over-capacity

When the system identifies an over-capacity condition, fewer labor resources are available than needed. You must adjust your resources or reschedule the sequence of maintenance tasks to correct an over-capacity condition.

Under-capacity

When the system identifies an under-capacity condition, it indicates that your labor resources are not being utilized to their full potential. You should adjust your resources or reschedule the sequence of maintenance tasks in order to better utilize your labor resources.

Ideally, you adjust your resources and schedule your maintenance tasks to achieve a 100-percent capacity throughout your maintenance organization.

Every time you generate a labor plan, the system deletes all previous capacity messages, except messages that you direct the system to hold and messages that you enter manually.

When you run the Labor Plan Generation program, the system displays Processing Option Revisions before submitting the job for processing. After you select the appropriate processing options, the system prompts you to specify a destination for the report output.

When you select data for Labor Plan Generation, J.D. Edwards recommends that you set critical work centers not equal to 4. A critical work center is a work center that you want the system to include as a demand for labor resources when the system processes a labor plan.

Before You Begin

- ❑ You must generate a parts plan before you generate a labor plan. See *Generating a Parts Plan*.

See Also

- *Working With Batch Versions* in the *One World Foundation Guide* for more information about running, copying, and changing batch versions
- *Reviewing Labor Messages* for more information about holding messages or entering messages manually
- *Setting Up Work Centers* for more information about setting up critical work centers
- *Reviewing Supply and Demand Information* in the *Inventory Management Guide* for the processing options for this program

What You Should Know About Processing Options

Process 1 (4)

J.D. Edwards recommends that Equipment/Plant Maintenance users choose the same version of inclusion rules for material planning and capacity planning.

Process 2 (5)

J.D. Edwards recommends that Equipment/Plant Maintenance users choose Capacity Requirements Planning (3). When you choose this option, the system includes all work centers in the labor plan.

Working with the Labor Plan

When the system generates a labor plan, it updates several forms and generates a variety of messages. You can review these forms and messages to plan the resource units needed to complete your maintenance tasks. The forms and messages include the following information:

Labor messages	You can quickly identify over-capacity and under-capacity conditions by reviewing labor messages. You can review messages for an individual work center or for a dispatch group. A dispatch group consists of related work centers that report to one business unit. Dispatch groups enable you to organize work centers according to common functions, similar operations, or steps in routing.
Capacity load	You can use capacity load to analyze the difference between the required labor resources (load) and the available labor resources (capacity) for any time period that you specify. You can review load versus capacity for a dispatch group or for individual work centers within the dispatch group.
Period summary	You can review detailed information about the work orders scheduled to be completed within a period that you specify. You can also review a summary of the total capacity load for all work orders within a period.

Working with the labor plan consists of the following tasks:

- Reviewing labor messages
- Reviewing capacity load
- Revising labor resources

Reviewing Labor Messages

Labor messages identify any labor resource conflicts. For example, you might have scheduled too many maintenance tasks for a work center without enough technicians to perform the work.

You can review the following types of labor messages:

Messages by dispatch group

Use Review Dispatch Group to quickly identify work centers that are over-capacity or under-capacity. You can review messages for all work centers in a dispatch group or for a specific work center.

Capacity messages by work center

Use Capacity Messages to review detailed capacity information for each work center. You specify the time period for which you want to review capacity requirements. The system provides information that you can use to balance loads across machines or work centers. You can also use the information to plan for additional labor resources to relieve work centers that are over capacity.

In addition, you can apply logic to individual capacity messages to do the following:

- Prevent them from being deleted when you generate subsequent labor plans
- Clear them from the form without deleting them
- Delete them from the form

Reviewing labor messages consists of the following tasks:

- Reviewing messages by dispatch group
- Reviewing messages by work center

► **To review messages by dispatch group**

From the Labor Planning menu (G1324), choose Review Dispatch Group.

1. On Work With Capacity Message Summary, complete one of the following fields:
 - Dispatch Group
 - Work Center
2. To limit your search to a specific type of work center or message, complete any of the following optional fields:
 - Critical W/C

- Message Type
- All W/C

Processing Options for Capacity Message Summary (P3301)

Defaults

1. Enter the Critical Work Center Code to be displayed or blank for all Work Centers. _____
2. Enter the Capacity Mode: _____
 - '1' = Resource Requirements
 - '2' = Rough Cut Capacity
 - '3' = Capacity Requirements
3. Enter the default Unit of Measure. _____

Versions

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

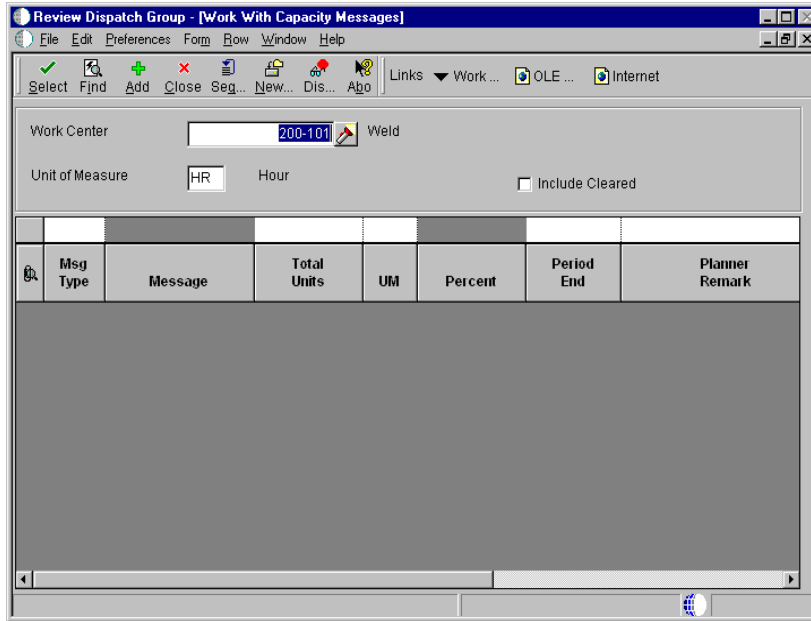
Work Center Revision (P3006) _____

► To review messages by work center

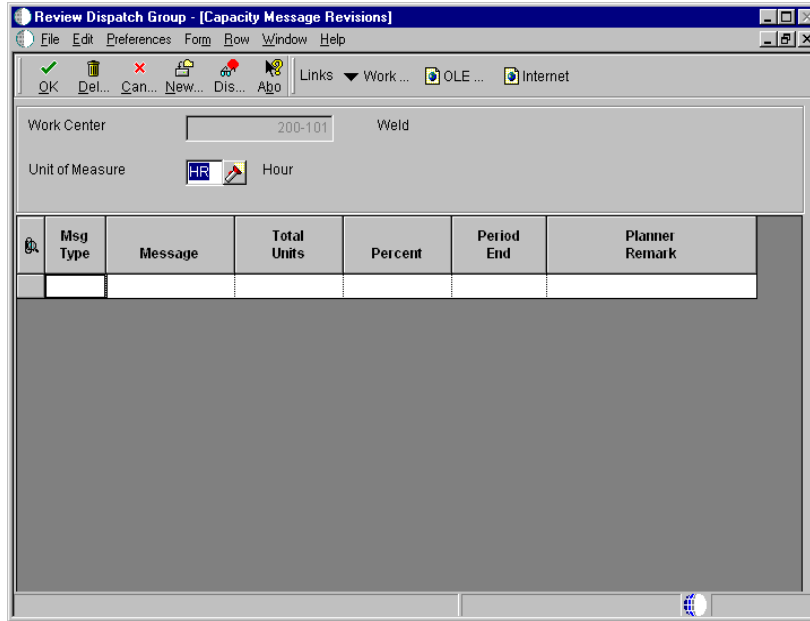
From the Labor Planning menu (G1324), choose Review Dispatch Group.

1. On Work With Capacity Message Summary, complete the steps to review messages by dispatch group.
2. Choose the record for the work center with the message that you want to review and click Select.

The Work With Capacity Messages form appears.



3. On Work With Capacity Messages, complete the following option to limit the type of messages that appear:
 - Include Cleared
4. To prevent the system from deleting a message when you run Labor Plan Generation, choose the record for the message and then choose Hold/Release from the Row menu.
5. To clear a message from the form without deleting it, choose the record for the message and then choose Clear from the Row menu.
6. To delete a message, choose the record for the message and click Select.



7. On Capacity Message Revisions, choose the record for the message and click Delete.

Processing Options for Capacity Planning Message Revisions

Defaults

1. Enter the Capacity Mode: _____
 '1' = Resource Requirements
 '2' = Rough Cut Capacity
 '3' = Capacity Requirements
2. Enter the default Unit of Measure. _____
3. Enter the default version of Work Center Revision (P3006) _____

What You Should Know About Processing Options

Capacity Mode (1) The Maintenance Planning system does not use Resource Requirements Planning.

Reviewing Capacity Load

You can use capacity load information to help you allocate your labor resources as optimally as possible. You can compare the load created by your maintenance tasks with the labor resources available to perform the maintenance tasks.

Reviewing capacity load consists of the following tasks:

- Reviewing capacity load by work center
- Reviewing capacity load by period summary

When you review detailed capacity load information by work center, you specify a work center and the unit of measure, such as hours, by which you track your maintenance tasks.

You can review all of the maintenance tasks that make up the capacity load on a work center. You can also specify the planning period you want to review. In addition, you can do the following:

- Identify the percentage of the total load for the work center for which each maintenance task accounts
- Identify the resource units, such as hours, required for each maintenance task

Reviewing Capacity Load by Work Center

When you review detailed capacity load information by work center, you specify a work center and the unit of measure, such as hours, by which you track your maintenance tasks. Depending on how you set up your system, the system provides some or all of the following information by period:

Released load	The load created from actual (firm) work orders.
Planned load	The load created from forecasted (planned) work orders.
Total load	The released load plus the planned load.
Gross capacity	The units available from the work center.
Rated capacity	The available units factored by efficiency and utilization. Efficiency is a user defined value that indicates how efficiently a work center operates. Utilization is a ratio of the actual time that a work center charges for maintenance activities to the planned time.
Percent of capacity used	The total load divided by the rated capacity.
Available capacity	The rated capacity minus the total load.

Accumulated available capacity A running total of available capacity.

► **To review capacity load by work center**

From the Labor Planning menu (G1324), choose Capacity Load.

1. On Review Work Center Load, complete the following field:
 - Work Center
2. Complete the following optional field:
 - Start Date

See Also

- *Setting Up Resource Planning Codes* for more information about defining the information that appears on Capacity Load

Processing Options for Capacity Load (P3313)

Defaults

1. Enter the Capacity Mode: _____
 '1' = Resource Requirements
 '2' = Rough Cut Capacity
 '3' = Capacity Requirements
2. Enter the User Defined Code for the list of row descriptions to appear. _____
3. Enter the default Unit of Measure. _____
4. Enter the version of the Dispatch List program to call. The default is ZJDE0001. _____

Versions

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

Operation Dispatch Inquiry _____
 (P31220)

Reviewing Capacity Load by Period Summary

Use Period Summary to review all of the maintenance tasks that make up the capacity load on a work center. You can also specify the planning period that you want to review. In addition, you can do the following:

- Identify the percentage of the total load for the work center for which each maintenance task accounts
- Identify the resource units, such as hours, required for each maintenance task

► To review capacity load by period summary

From the Labor Planning menu (G1324), choose Period Summary.

1. On Work With Period Summary Review, complete the following field and click Find:
 - Work Center
2. To limit the number of records that appear, complete the following fields:
 - Period From
 - To

Processing Options for Period Summary (P3312)

Defaults

1. Enter the Capacity Mode: _____
 - '1' = Resource Requirements
 - '2' = Rough Cut Capacity
 - '3' = Capacity Requirements
2. Enter the default Unit of Measure. _____
3. Enter the version of the Dispatch List to call. The default is ZJDE0001. _____

Versions

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

1. Work Center Revision (P3006) _____
2. Forecast Revision (P3460) _____

3. MRP/MPS Message Revision (P3411) _____

4. Mfg Scheduling Workbench (P31225) _____

Revising Labor Resources

After you have identified which work centers have over-capacity and under-capacity conditions, you should revise labor resources to correct the conditions and balance the workload. When you correct over-capacity and under-capacity conditions, you help maximize the efficiency of your maintenance organization and save costs.

You can use the following methods to revise labor resources:

- Change the date to perform the maintenance task
- Revise the labor resources allocated to a work center

For example, you have several work orders scheduled on a day that is 40 percent over capacity. You note that the following work day is 35 percent under capacity. You can balance your capacity load by rescheduling a portion of the work orders for the following day. You can also reschedule individual operation sequences (routing steps) on a work order.

You can also make short-term revisions to the work center that is responsible for the maintenance tasks. For example, you can do the following:

- Indicate additional resources for a particular work day
- Add work days to a work week
- Revise the efficiency of the work center

Revising labor resources consists of the following tasks:

- Revising work order dates
- Revising resource units for a work center

Revising Work Order Dates

You can revise work order dates to correct over-capacity and under-capacity conditions. You can also reschedule individual operation sequences (routing steps) on a work order.

► To revise work order dates

From the Labor Planning menu (G1324), choose Capacity Load.

1. On Review Work Center Load, complete the following field and click Find:
 - Work Center
2. Choose Dispatch List from the Form menu.

Order Number	Type	Oper Seq	Oper Status	Start Date	Reqd Date	Remaining Machine Hours	Remaining Labor Hours	Remaining Setup Hours	Remaining Quantity
--------------	------	----------	-------------	------------	-----------	-------------------------	-----------------------	-----------------------	--------------------

3. On Work With Operation Dispatch, click Find.
4. Choose the record for the work order and then choose Operation Dispatch Revisions from the Row menu.

Capacity Load - [Operation Dispatch Detail Revisions]

File Edit Preferences Window Help

OK Can... Dis... Abo Links Displ... OLE ... Internet

Order Number: 451039 W/O Chain Stay

Op Status: [] Op Seq: 40.00 Start Date: 6/7/05

WO Status: 40 WO Type: S Rqsted Date: 6/7/05

Rmng Run Mch: [] Rmng Qty: 20 Btd Mch Hrs: []

Rmng Run Lab: 10.00 Btd Labor Hrs: 10.00

Rmng Setup Hrs: [] Btd Setup Hrs: .25

Item Number: 2005 Chain Stay

Supplier: []

PO Number: [] SO Num.: [] Tool ID: []

PO Type: [] SO Type: [] Crew Size: 1.0

5. On Operation Dispatch Detail Revisions, complete the following field:
 - Start Date
6. Complete the following optional field and click OK:
 - Rqsted Date
7. On Work With Operation Dispatch, choose Routing Revisions from the Row menu to reschedule individual operation sequences on the work order.

Capacity Load - [Work Order Routing]

File Edit Preferences Form Row Window Help

OK Copy Del... Can... New... Dis... Abo Links Copy... OLE ... Internet

Order Number: 451039 W/O Branch/Plant: M30

Chain Stay Requested: 6/7/05

Item Number: 2005 Chain Stay

Work Center	Operation Sequence	Operation Status	Operation Description	Machine Run Hours	Labor Run Hours
200-112	10.00		Cut to length		3
200-132	20.00		Stamp drop-outs		2
200-121	30.00		Mill slots		5
200-101	40.00		Weld		10

Row:1

8. On Work Order Routing, complete the following field for each operation sequence that you want to reschedule and click OK.
 - Operation Sequence
9. On Work With Operation Dispatch, click Close.

Processing Options for Operation Dispatch Inquiry (P31220)

Defaults

1. Enter the Default OPERATION Status Information to preload to the screen at initial inquiry. If left blank, no value will be preloaded:

From Status _____
Thru Status _____

2. Enter the Default Number of Days:

Prior to todays date for the From Date _____
After todays date for the Thru Date _____

Versions

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

Work Order Parts Inquiry Version _____

Process

1. Enter '1' to subtract Quantity Cancelled/Scrapped from the Remaining Quantity. If left blank, the remaining quantity value will include cancelled/scrapped quantity. _____

Revising Resource Units for a Work Center

You can revise resource units for a work center to correct over-capacity and under-capacity conditions. Use Craft Resource Units to make short-term revisions to the work center responsible for the maintenance tasks. For example, you can do the following:

- Indicate additional resources for a particular work day
- Revise the efficiency of the work center

In addition, you can add or subtract work days to the workday calendar. For example, you might want to add a Saturday to the work week to compensate for an over-capacity condition.

Note: When you need to make permanent or long-term resource revisions to a work center, use Work Center Master Revision.

See Also

- *Setting Up Work Centers* for more information about adding resources to a work center

► **To revise resource units for a work center**

From the Labor Planning menu (G1324), choose Craft Resource Units.

1. On Work with Resource Units, complete the following fields and click Find:
 - Branch
 - Business Unit
 - Calendar Month
2. Choose the record and click Select.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Efficiency
						1	100.00
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	
16	17	18	19	20	21	22	
23	24	25	26	27	28	29	
30	31						
							Utilization
							100.00
00	24.00	24.00	24.00	24.00	24.00	00	
00	24.00	24.00	24.00	24.00	24.00	00	
00	24.00	24.00	24.00	24.00	24.00	00	
00	24.00	24.00	24.00	24.00	24.00	00	Total Resource Units
00	24.00						504.00

3. On Work Center Resource Unit Revision, complete the following field for each calendar day for which you want to revise resource units:
 - Resource Units Work 01

Equipment-Plant Maintenance

Resource unit fields are unlabeled. Each resource unit field corresponds to a calendar day that appears in the upper portion of the form.

4. To revise work center efficiency, complete the following field:
 - Work Center Efficiency
5. To add or subtract work days to the workday calendar, choose Work Day Calendar from the Form menu.

6. On Work Day Calendar Revisions, enter a new type of day for each day that you want to revise and click OK.

Changes that you make on Work Day Calendar Revisions are not reflected on the Work Center Resource Unit Revision form until you recall the form from Work With Resource Units.

Field	Explanation
-------	-------------

Field	Explanation
Efficiency	<p>A user defined value that indicates how efficiently a work center operates. This value usually refers to staff efficiency. When you enter a value in this field, and the Modify Cost by Work Center Efficiency field in the Job Shop Manufacturing Constants table (F3009) is set to Y, the system creates a new cost component (B4) from the cost calculated from the direct labor cost (B1).</p> <p>For example, if the constant is set to Y, the value of this field is 80%, and the direct labor cost is 10, the system creates a B4 cost component for 2 in the Item Cost Component Add-Ons table (F30026).</p> <p>The Refresh Resource Units program also uses this value as a default when calculating rated capacity.</p> <p>Enter percents as whole numbers. For example, enter 80% as 80.00.</p> <p>Note: The system expects that the routing times entered for each operator are the actual times it takes to complete an operation. Efficiency does not affect total cost. Efficiency does reassign some of the costs into different cost components. Efficiency does not change the duration or backscheduling of a work order.</p>

Processing Options for Work Center Resource Units (P3007)

Defaults

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

Unit of Measure as Input _____
 Work Day Calender (P00071) _____

Setup

System Setup

Before you can use any of the maintenance features in Equipment/Plant Management, you must define certain information to customize the system for your specific business needs. This information consists of the following:

- Equipment information** You set up equipment information to establish system basics, such as the following:
- Equipment and Fixed Asset constants
 - Next Numbers
 - Automatic accounting instructions (AAIs) that define the link between Equipment/Plant Maintenance and General Accounting systems
- User defined codes** You set up user defined codes to enter information to customize your system to your specific business needs. You can customize a wide variety of information using user defined codes.
- Supplemental data** You set up supplemental data to define the types of detailed information that you want to track for equipment and work orders. Supplemental data is entirely user defined and you determine the data that you want to track based on your business needs.
- PM information** You set up PM information to do the following:
- Define standard maintenance procedures
 - Create maintenance schedules
 - Define rules that govern when maintenance is performed

- Work order information** You set up work order information to provide the system with the information needed to process work orders according to your business needs. For example, you must do the following:
- Identify the managers and supervisors who are responsible for maintenance tasks
 - Determine the steps through which a work order must pass
- Maintenance planning information** You set up maintenance planning information to do the following:
- Determine basic planning constants for each branch, such as the type of inventory commitment and the length of the work day
 - Define the rules by which the system indicates a need for parts and labor resources

System setup consists of the following tasks:

- Setting up equipment
- Understanding user defined codes
- Setting up supplemental data
- Setting up job cost inquiry
- Setting up PM schedule information
- Setting up work orders
- Setting up maintenance planning

Setting Up Equipment

Before you can use Equipment/Plant Maintenance features, you must set up basic information about your equipment. The system accesses the information that you set up when it executes various programs within Equipment/Plant Maintenance.

Setting up equipment consists of the following tasks:

- Setting up equipment constants
- Working with AAIs for Equipment/Plant Maintenance
- Setting up equipment next numbers
- Setting up depreciation default coding
- Mapping equipment category codes
- Setting up specification data

Setting Up Equipment Constants

You set up equipment constants to control how your business uses Equipment/Plant Maintenance features. For example, when you define a default business unit for depreciation expense in equipment constants, the system automatically transfers this information to Depreciation Information whenever you add a new piece of equipment to the system. You can also specify the business unit that appears as a default value for the asset accounts when you create equipment master information for a new piece of equipment.

You set up equipment constants only one time for Equipment/Plant Maintenance. Typically, you should not change the system constants. However, if you need to change them for any reason, you should understand the consequences. For example, if you change the default business unit for asset accounts, the change affects only the equipment that you add to the system after the change, and not the equipment that exists in the system prior to the change.

For some equipment constants, you must perform an additional process to update the system with your latest change. For example, if you change the symbol for the asset number on the Equipment Constants form, you must also run the Refresh

Asset Number in F0911 program in Fixed Assets Global Updates to ensure that other programs that use symbols to identify the asset number reflect the change.

Note: Equipment/Plant Maintenance shares some constants with the Fixed Asset system. You should work with the system administrator for Fixed Assets to ensure that the constants are set up to meet the needs of Fixed Assets and Equipment/Plant Maintenance.

► To set up equipment constants

From the Equipment/Plant Management Setup menu (G1341), choose Equipment Constants.

1. On Fixed Asset Constants, to establish default values for business units, click one of the following options for each fixed asset account:
 - Accumulated Depreciation Default
 - Accumulated Depreciation Responsible BU
 - Depreciation Expense Default
 - Depreciation Expense Responsible BU
 - Revenue Default
 - Revenue Responsible BU
2. To specify how the system identifies equipment numbers, complete the following fields:
 - Symbol to Identify Asset Number
 - Symbol to Identify Unit Number
 - Symbol to Identify Serial Number
3. To specify a default depreciation category code for equipment, complete the following field:
 - Depreciation Category Code
4. To specify which equipment category code the system uses to assign supplemental and specification data types, complete the following field:

- Supplemental Category Code
5. To define the supply and demand inclusion rules that the system uses for material planning, complete the following field:
- Inclusion Version
6. To define the work order record type for maintenance loops, complete the following field:
- Maintenance Loop

Field	Explanation
Symbol to Identify Asset Number	<p>You can assign one of three different numbers to an asset. These numbers are:</p> <ul style="list-style-type: none"> • Asset Number - an 8-digit, computer assigned number • Serial Number - a 25-digit model or serial number • Unit Number - a 12-digit, alphanumeric, user defined number <p>When you enter an asset number, you may use a prefix or symbol to designate the number you enter. If you use this number most often, you should leave the symbol blank so that you just need to enter the number. If it is not the number you use most often, you should define a symbol, such as / or *, that you will type before you enter the number so that the system knows which number you are representing.</p> <p>Note: You can leave only one asset number blank. The other two must have a symbol so that all three numbers are unique. Verify that the symbols that you use are not significant for any other purposes of data entry, for example, a period or comma.</p>
Depreciation Category Code	<p>Use this Fixed Asset category code to group assets into depreciation categories. Inquiries, reports, journals, and other processes that depend on the depreciation category refer to the value in this category code.</p> <p>NOTE: You must set up a default value for this category code.</p>

Field	Explanation
Supplemental Category Code	<p>Enter the number of the equipment category code that controls which supplemental data types the system displays on the Equipment Management supplemental data forms.</p> <p>When you set up supplemental data, you use Data Type Cross Reference to specify which types of data appear on supplemental data forms. For example, on Equipment Constants, you can specify equipment category code 2 (Major Equipment Class) as the supplemental data category code. Then, on Data Type Cross Reference, you can specify which data types are appropriate for each class of equipment you set up under Major Equipment Class, such as specification sheets and transportation notes for heavy equipment.</p>
Inclusion Version	<p>A user defined code (40/RV) that identifies an inclusion rule that you want the system to use for this branch/plant. The Manufacturing and Warehouse Management systems use inclusion rules as follows:</p> <ul style="list-style-type: none"> • For Manufacturing: Allows multiple versions of resource rules for running MPS, MRP, or DRP. • For Warehouse Management: Allows multiple versions of inclusion rules for running putaway and picking. The system processes only those order lines that match the inclusion rule for a specified branch/plant. <p>If you leave this field blank, the system does not update the capacity plan when you create a work order or change the status of a work order.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This code determines whether the system submits capacity planning interactively when you create a work order or when you change the status of a work order. The value you enter defines which version of the supply/demand inclusion rules the system uses to update the capacity plan.</p>
Maintenance Loop	<p>The detail specification record type. Record types are user defined. You can set them up on the Detail Specification Types form and use them to describe certain types of work order or engineering change order information.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is the work order record type that stores the associated equipment you define for maintenance loops. For example, if you enter record type E on this form, when you set up a maintenance loop, the system includes all equipment contained in record type E on the work order.</p>

Working with AAIs for Equipment/Plant Maintenance

From the Equipment/Plant Management Setup menu (G1341), choose Automatic Accounting Instructions.

Many J.D. Edwards programs need information about your account structure and specific account values to process business transactions properly. You define your account structure and specific account values by using automatic accounting instructions (AAIs). The system stores the AAI values that you define for your company in the Automatic Accounting Instructions table (F0012). Whenever a program performs an accounting function, it accesses the Automatic Accounting Instructions table.

Equipment/Plant AAIs define the rules by which Equipment/Plant Maintenance and the General Accounting system interact. When you define AAIs, you establish how the system processes transactions for various programs. For example, AAIs set the rules by which general ledger transactions can post to Equipment/Plant Maintenance.

Working with AAIs for Equipment/Plant Maintenance consists of the following tasks:

- Understanding AAIs for Equipment/Plant Maintenance
- Setting up AAIs for Equipment/Plant Maintenance

Understanding AAIs for Equipment/Plant Maintenance

You set up AAIs by company, based on account numbers, and in some cases, ranges of account numbers. The system includes predefined ranges. You must specify the business unit and object account for the AAIs as necessary. Additionally, you must specify subsidiary accounts for certain AAIs.

The system uses single AAI values to find individual accounts and AAI ranges to find account ranges. When you set up AAI ranges, you must observe the following guidelines:

- You can set up a maximum of 49 account ranges for a single company.
- The maximum number of account ranges that you can set up for all your companies combined is 200.
- Do not skip AAI ranges. For example, do not set up FX range 01 - 02 and FX05 - 06, leaving FX03 - 04 blank for later use. If the system searches the AAIs for an account and finds a gap in a range, the search is stopped.

- You must set up your AAI ranges in numerical order. However, you are not required to set up your object accounts in numerical order.

AAIs for Equipment/Plant Maintenance include the following categories:

Equipment AAIs

Equipment AAIs consist of the following:

- FX - Identifies accounts that post to equipment
- FC - Identifies asset cost accounts
- AT - Identifies accounts and descriptive text that define totals for summary reporting

PM AAIs

PM AAIs consist of the following:

- AT00 - Identifies the statistical account for units, such as hours
- FMA - Identifies the statistical account for units, such as fuel
- FMB - Identifies the statistical account for units, such as miles
- FMC - Identifies the statistical account for the original meter reading that corresponds to the FMA statistical account
- FMD - Identifies the statistical account for the original meter reading that corresponds to the FMB statistical account
- FME - Identifies the statistical account for the original meter reading that corresponds to the AT00 statistical account

Work Order AAIs

You must set up the following work order AAI:

- FP - Identifies the account that the system charges when you create a purchase order for parts on the work order parts list

See Also

- *Working with AAIs* in the *General Accounting Guide* for more information about adding or changing AAIs

The guidelines that follow pertain only to AAIs relevant to Equipment/Plant Maintenance.

FX Range

The system uses the FX range in the AAIs to determine which journal entries in the general ledger can post to equipment. You must specify all equipment accounts within the FX range of accounts. The FX range of accounts consist of the following:

- FX01 - FX02. Beginning and ending range for asset cost accounts
- FX03 - FX04. Beginning and ending range for accumulated depreciation accounts
- FX05 - FX06. Beginning and ending range for depreciation expense accounts

When you set up the FX range of AAIs, you must apply the following rules:

- Define up to 49 FX ranges, starting with FX01 - FX02 and ending with FX97 - FX98.
- End ranges in even numbers, such as FX02 and FX98.
- Set up FX ranges. They can be company specific, or you can use the default company 00000 to set up the FX range for all your companies at the same time. If you set up a company-specific FX range for one company, you must set up the FX ranges for all companies. In addition, you must begin the FX range for each company with FX01.
- Specify an object account for each FX range.
- Set up optional Subsidiary accounts. To include all subsidiaries in the FX range, include .99999999 in the ending range. For example, if you use subsidiary accounts, you might have a range of accounts that includes accounts 3000 - 4000.99999999. By doing so, you can add other subsidiaries to your chart of accounts at a later time without having to change your AAIs.

FC Range

The system uses the FC range in the AAIs to determine which accounts are reserved for asset cost accounts.

When you set up the FC range of AAIs, you must apply the following rules:

- Define up to 49 FC ranges.
- Define account ranges for all asset cost accounts.
- Set up FC account ranges for company 00000 only. The FC range is not company specific.

AT Range

The system uses the AT range of AAIs to determine which general ledger accounts are included in the summary lines on the Cost Summary form. Use AT01 - AT99 to specify these interim total accounts and wording that appear for each total on Cost Summary. Use AT00 to define the account in which to store statistical information for hours. The AT range of AAIs is optional.

For example, you might specify that your balance sheet accounts are in account range 1000 - 3999 and your income and expense accounts are in the 4000 - 8999 range. You could set up your AT range as follows:

- AT01. Object account 4000. This interim total sums all object accounts below 4000, or accounts 0 - 3999. The system does not include object account 4000.
- AT02. Object account 9000. This interim total sums all object accounts between 4000 - 8999. The system does not include object account 9000.

When you set up the AT range of AAIs, you must apply the following rules:

- Define interim totals between AT01 - AT99.
- Use AT00 to define the account number that stores statistical information for hours.
- Do not specify an interim total for the Cost Summary grand total. The system automatically creates a grand total on Cost Summary.

FMA, FMB, and AT00 AAIs

The system uses these AAIs to determine the statistical accounts to use when equipment accumulates units, such as miles, hours, and fuel. The system uses statistical units to track equipment use. Programs that use these AAIs include:

- Meter Readings
- PM Schedule
- Update PM Schedule
- PM History and Completion
- Equipment Cost Analysis

When you set up FMA, FMB, and AT00 AAIs, you can set them up to be company-specific. In addition, you must apply the following rules:

- Include a business unit and object account for each AAI
- Do not include a subsidiary account

Note: If you perform preventive maintenance based on equipment use measured by billed hours, you can use the same accounts for these AAIs as you use for billing accounts. AAIs applicable to equipment billing include:

- FTC
- FTC1 - FTC0
- FTxx

See Also

- *Setting Up AAIs for Equipment Billing* in the *Equipment Billing Guide*
- *About AAIs* in the *General Accounting Guide* for more information on AAIs

FMC, FMD, and FME AAIs

The system uses these AAIs to define the statistical account that records the original meter reading determined by the Meter Readings program. Each of these AAIs corresponds to a statistical account as follows:

- FMC corresponds to the FMA account
- FMD corresponds to the FMB account
- FME corresponds to the AT00 account

When you set up FMC, FMD, and FME AAIs, you can set them up to be company-specific. Additionally, you must apply the following rules:

- Include a business unit and object account for each AAI
- Do not include a subsidiary account

FP AAI

The system uses the FP AAI to determine which account to charge when you create a purchase order from the work order parts list. You can set up the FP AAI to be company-specific. Additionally, you must apply the following rules:

- Include an object account for each AAI.
- Optionally include a business unit or subsidiary account. If you do not include a business unit or subsidiary account, the system uses the Charge to Business Unit and Repair Code from the work order for which you are purchasing parts.

Additionally, you must verify that line types have been set up.

See Also

- *Appendix A - Inventory Concepts and Setup* for more information about setting up line types

Setting Up AAIs for Equipment/Plant Maintenance

Because the system already has AAIs in place, you must verify that these AAIs are appropriate for your business needs. You can revise existing AAIs and set up additional AAIs as needed.

Setting up AAIs for Equipment/Plant Maintenance consists of the following tasks:

- Reviewing and revising a single AAI
- Reviewing and revising multiple AAIs
- Setting up a new AAI

Before You Begin

- Set up your chart of accounts. See *Creating and Updating Your Chart of Accounts* in the *General Accounting Guide*.
- Set up security, if applicable. See *Setting Up Application Security* in the *OneWorld Foundation Guide*.

► To review and revise a single AAI

From the Plant/Equipment Management Setup menu (G1341), choose Automatic Accounting Instructions.

To review individual AAI items in detail and revise them as needed, use the Set Up Single AAI Item form. You also use this form when you copy an existing AAI item.

1. On Work With Automatic Accounting Instructions, change the following field and click Find to display the list of AAI items with a specific sequence number:
 - Sequence Number
2. To narrow your search, enter additional search criteria in the Query by Example row and click Find.

- Choose an AAI item and click Select.

- On Set Up Single AAI Item, review the fields, changing the following fields as needed, and click OK:

- Product Code
- Sequence Number
- Business Unit
- Object Account
- Subsidiary

You cannot change the following fields for existing AAI items:

- Item Number
- Company

Note: J.D. Edwards recommends that you do not change the following account segment fields:

- BU Option
- Object Option
- Subsidiary Option

Field	Explanation
System	A user defined code (98/SY) that identifies a J.D. Edwards system.
Sequence No.	A number used to organize the table into a logical group for online viewing and reporting.
Business Unit	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p> <p>.....<i>Form-specific information</i>.....</p> <p>Defining a business unit code might be optional, depending on the type of AAI. For example, if the business unit code is optional and you do not set one up for the AAI, the system might use the business unit of a voucher or invoice, or it might use the business unit associated with the company of a transaction.</p>
Object Account	<p>The portion of a general ledger account that refers to the division of the Cost Code (for example, labor, materials, and equipment) into subcategories. For example, dividing labor into regular time, premium time, and burden.</p> <p>Note: If you are using a flexible chart of accounts and the object account is set to 6 digits, J.D. Edwards recommends that you use all 6 digits. For example, entering 000456 is not the same as entering 456, because if you enter 456, the system enters three blank spaces to fill a 6-digit object.</p>
Subsidiary	<p>A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This number identifies the general ledger subsidiary account for the AAI when one is required.</p> <p>Defining a subsidiary account can be optional, depending on the type of AAI. Use 99999999 to express the end of a range of subsidiary accounts.</p>

Field	Explanation
BR	<p>A code in WorldSoftware, or an option in OneWorld software, that specifies whether the business unit is required for this Automatic Accounting Instruction.</p> <p>Valid values for WorldSoftware are:</p> <ul style="list-style-type: none"> O Optional R Required N Not used <p>This code is informational and may be changed depending on how the AAI is used.</p>
OR	<p>A code in WorldSoftware, or an option in OneWorld software, that specifies whether the object account is required for this Automatic Accounting Instruction.</p> <p>Valid codes for WorldSoftware are:</p> <ul style="list-style-type: none"> O Optional R Required N Not used <p>.....<i>Form-specific information</i>.....</p> <p>Do not change this field.</p>
SR	<p>A code in WorldSoftware, or an option for OneWorld software, that specifies whether the subsidiary account is required for this Automatic Accounting Instruction.</p> <p>Valid codes for WorldSoftware are:</p> <ul style="list-style-type: none"> O Optional R Required N Not used <p>.....<i>Form-specific information</i>.....</p> <p>Do not change this field.</p>

Technical Considerations

Changing account segment values

You can change the value in an account segment field (business unit, object account, and subsidiary) if the account segment was originally defined as required or optional. You cannot change the value if the account segment was originally defined as not used, unless you first change the Not Used code to Required or Optional. J.D. Edwards recommends that you do not change this code on existing AAI items.

Processing Options for Automatic Accounting Instructions (P0012)

Sequence No.

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This job has various options described below. Enter the desired values and press OK to continue.

Enter the Starting Sequence Number _____

► To review and revise multiple AAIs

From the Plant/Equipment Management Setup menu (G1341), choose Automatic Accounting Instructions.

To display the information for multiple AAI items use the Set Up Multiple AAI Items form.

1. On Work With Automatic Accounting Instructions, to review and revise AAI items with different item numbers, choose a record and then choose Multiple AAIs from the Row menu.

Seq. No.	Item No.	Co	Business Unit	BU Op	Obj Acct	Obj Op	Sub	Sub Op	Description Line 1
13.205	FMA	00000	YARD	R	8403	R		O	Fuel Consumption

2. On Set Up Multiple AAI Items, review the fields, change the following fields as needed, and click OK:
 - Seq. No.
 - Business Unit
 - Object Account
 - Subsidiary

- Product Code

Caution: Do not change the following fields in the detail area for existing AAI items:

- Item No.
- Company

Note: J.D. Edwards recommends that you do not change the following account segment fields:

- BU Option
- Obj Op
- Sub Op

3. To display only the AAI items for a specific item number for review and revision, complete the following field in the header area and click Find:

- Item Number

Technical Considerations

Changing account segment values

You can change the value in an account segment field (business unit, object account, and subsidiary) if the account segment was originally defined as required or optional. You cannot change the value if the account segment was originally defined as not used, unless you first change the Not Used code to Required or Optional. J.D. Edwards recommends that you do not change this code on existing AAI items.

► To set up a new AAI

From the Plant/Equipment Management Setup menu (G1341), choose Automatic Accounting Instructions.

After you review and revise the existing AAIs for your business needs, you might need to set up additional AAI items. To copy an existing AAI item, you use the Set Up Single AAI Item form. Otherwise, using the Set Up Multiple AAIs Items form is typically the fastest method.

1. On Work With Automatic Accounting Instructions, choose an item and then choose Multiple AAIs from the Row Menu.
2. On Set Up Multiple AAI Items, move the cursor to a blank line.
3. Complete the following fields:
 - Item No.
 - Company
 - Business Unit
 - Object Account

You must use a valid item number when you set up AAIs.

4. Complete the following fields, which are optional for some AAI items:
 - Subsidiary
 - Description Line 1
5. To specify whether a particular account segment is required, optional, or not used, complete the following fields:
 - BU Option
 - Obj Op
 - Sub Op
6. Click OK.

Related Tasks

Setting up a new AAI by copying an existing AAI The following method is an efficient way to use an existing AAI to set up a new AAI:

- Choose the existing AAI on Work With Automatic Accounting Instructions and click Copy.
- Type the new values over the old values in the appropriate fields, including the description, on Set Up Single AAI Items.
- Click OK.

The system keeps the existing AAI and adds the new one.

Setting Up Equipment Next Numbers

When you set up equipment next numbers, you enable the system to automatically assign unique numbers for certain items. For example, when you create an equipment master for a new piece of equipment, the system assigns a unique equipment number to the equipment. You must set up next numbers for the following items:

Equipment number The system generates an equipment (asset) number to uniquely identify each piece of equipment. Depending on how you set up equipment constants, you can use the equipment number as the primary number by which equipment is identified on forms and reports throughout Equipment/Plant Management.

See *Setting Up Equipment Constants* for more information about equipment numbers.

Document number The system assigns unique document numbers to identify documents that it creates when you run various Fixed Assets programs, including the following:

- Compute Depreciation
- Single/Mass Asset Transfer
- Single/Mass Asset Disposal
- Enter Beginning Balances
- Asset Splits

Text key number	The system generates a text key number to uniquely identify each location and to associate location tracking text to the location. The system assigns every location a text number, regardless of whether you enter text for the location.
Transfer number	The system generates a transfer number to group location transfers. The transfer number can include multiple location information lines for multiple pieces of equipment. For example, when you enter location tracking information for several pieces of equipment on one form, the system generates a transfer number to group each line of information as one transfer order.

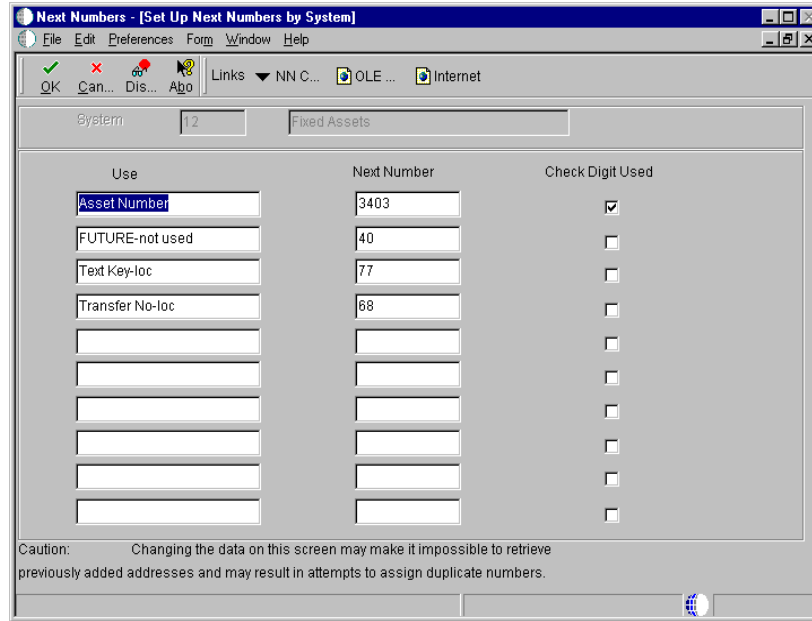
The system stores these next numbers in the Fixed Assets system (system 12). The system generates next numbers from the Next Numbers table (F0002).

Caution: J.D. Edwards strongly recommends that you do not use blank as a next number value. In addition, to ensure data integrity and to prevent the system from assigning duplicate next numbers, you must never change a next number to a lesser value.

► To set up equipment next numbers

From the Equipment Setup menu (G1341), choose Next Numbers.

1. On Work With Next Numbers, type 12 in the following field and click Find to locate next numbers for Equipment/Plant Maintenance:
 - Product Code
2. Choose a record and click Select.



3. On Set Up Next Numbers by System, complete the following fields for each number that you need to set up:

- Next Number

Do not delete next number values. Deleting a next number value might prevent the system from assigning an automatic next number or cause other unpredictable results.

- Check Digit Used

Field	Explanation
Next Number	The number that the system will assign next. The system can use next numbers for voucher numbers, invoice numbers, journal entry numbers, employee numbers, address numbers, contract numbers, and sequential W-2s. You must use the next number types already established unless you provide custom programming.
Check Digit Used	When next numbers are used you may add a digit to the end of each next number. If you are using check digits, and the next number is “2”, the computer will add a check digit to the end of the number and assign “27”. This check digit enhances automated next numbers by avoiding assignment of transposed numbers. For example, if “19” has been assigned, the computer will not assign “91”.

Setting Up Depreciation Default Coding

You can control the accounts and depreciation values that the system enters into the equipment master and account balance information when you add a new piece of equipment to the system. You simplify the entry process of new equipment information when you set up the following default values:

- Accounting class
- Equipment class
- Depreciation accounts
- Revenue accounts
- Depreciation information

You must set up depreciation default values for each asset cost account in each company. You should verify that the default values are correct before you set up or enter new equipment master information.

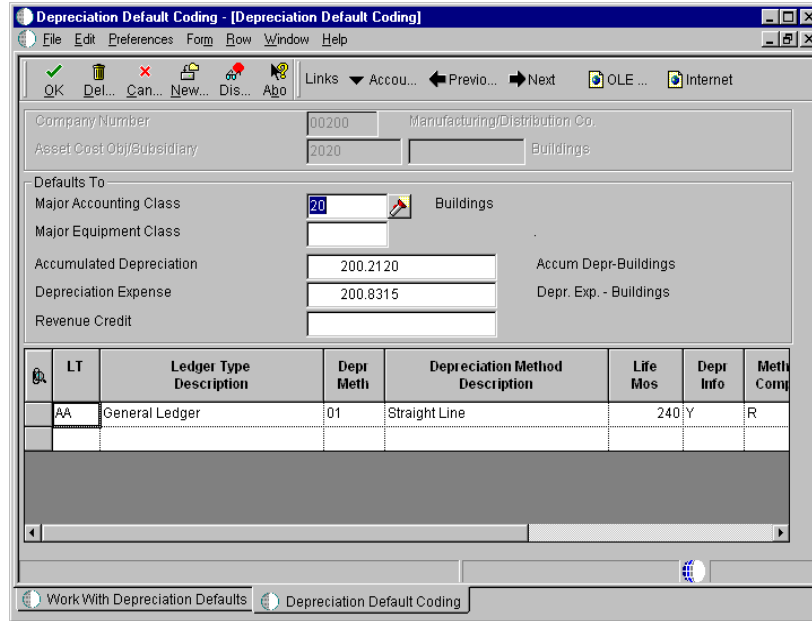
J.D. Edwards recommends that you establish a one-to-one relationship between the asset cost account and the Major Accounting Code. If you establish this one-to-one relationship, you will not need to override the default values when you set up equipment masters.

Note: The values that you set up on Depreciation Default Coding are also used by the Fixed Assets system. You should coordinate the depreciation default setup and any subsequent changes that you make with your accounting department.

► To set up depreciation default coding

From the Equipment Setup menu (G1341), choose Depreciation Default Coding.

1. On Work With Depreciation Defaults, click Add to access Depreciation Default Coding.



2. On Depreciation Default Coding, complete the following fields:
 - Company

The company number that you associate with the asset cost and accumulated depreciation accounts must be the same as the company number that you assign to the piece of equipment.
 - Asset Cost Object Default

3. To set up depreciation ledgers for each company and cost account combination, complete the following fields:
 - Ledger Type
 - Depreciation Method

4. Complete the following optional fields:
 - Asset Account Subsidiary Default
 - Major Accounting Class
 - Major Equipment Class
 - Revenue Credit

If you use depreciation method 00, you are not required to complete any of the account fields. The only exception is the Revenue Credit field. Complete this field if you plan to do any type of equipment

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billing. If you use any other depreciation method, you must complete these account fields.

Field	Explanation
Company	<p>A code that identifies a specific organization, fund, entity, and so on. The company code must already exist in the Company Constants table (F0010) and must identify a reporting entity that has a complete balance sheet. At this level, you can have intercompany transactions.</p> <p>Note: You can use Company 00000 for default values, such as dates and automatic accounting instructions. You cannot use Company 00000 for transaction entries.</p>
Asset Cost Obj/Subsidiary	<p>The general ledger account (object number) used to record a fixed asset's acquisition cost. Within each company, you define default coding instructions for asset cost accounts. Then, based on these default codes, when you set up a new asset, the system automatically assigns:</p> <ul style="list-style-type: none"> • Major and subclass codes • G/L accounts for depreciation and revenue • Depreciation books
LT	<p>A user defined code (09/LT) that specifies the type of ledger, such as AA (Actual Amounts), BA (Budget Amount), or AU (Actual Units). You can set up multiple, concurrent accounting ledgers within the general ledger to establish an audit trail for all transactions.</p> <p>.....<i>Form-specific information</i>.....</p> <p>For Equipment/Plant Management users:</p> <p>As a minimum setup requirement, you must set up a ledger type of AA (actual amounts).</p>

Field	Explanation
Depr Info	<p>A code for additional depreciation information. This code is used for investment tax credit (ITC) and averaging conventions. The system validates the code you enter in this field against user defined code table (12/AC). Valid codes are:</p> <ul style="list-style-type: none"> 0 No ITC Taken 1 Three Year Method (3 1/3%) 2 Five Year Method (6 2/3%) 3 Seven Year Method (10%) 4 ACRS Method with Basis Reduction (10% ITC) 5 ACRS Method without Basis Reduction (2% ITC or No ITC) A Actual Date of Depreciation Start Period H Half-Year M Mid-Month Convention Q Mid-Quarter Convention Y Mid-Year Convention P Middle of Period F First-half/Second-half W Whole Year N First Day of Next Period R First Day of Next Year S Actual Start Date for Primary Rule/First Day of Period for Secondary Rule

Note: Numeric codes apply to standard depreciation methods only.

To determine the date for F (First-half/Second-half), use the following guidelines:

- If the asset was placed in service in the first half of the year, then the adjusted depreciation start date is the first day of the year.
- If the asset was placed in service in the second half of the year, then the adjusted depreciation start date is the first day of the succeeding year.
- The first half of the year expires at the close of the last day of the calendar month that is closest to the middle of the tax year.
- The second half of the year begins the day after the expiration of the first half of the tax year.

Field	Explanation
Major Accounting Class	<p>A user defined code (12/C1) that determines the accounting class category code. You use this accounting category code to classify assets into groups or families, for example, 100 for land, 200 for vehicles, and 300 for general office equipment.</p> <p>J.D. Edwards recommends that you set up major class codes that correspond to the major general ledger object accounts in order to facilitate the reconciliation to the general ledger.</p> <p>Note: If you do not want to use the major accounting class code, you must set up a value for blank in the user defined code table.</p>
Major Equipment Class	<p>A user defined code (12/C2) that is used to classify assets into groups or families. You use the equipment category code as a subclass to further define the accounting class, for example, 310 for copy equipment, 320 for projectors, and 330 for typewriters within the accounting class for general office equipment.</p> <p>Note: If you do not want to use the major equipment class, you must set up a value for blank in the user defined code table.</p>
Revenue Credit	<p>A field that identifies an account in the general ledger. You can use one of the following formats for account numbers:</p> <ul style="list-style-type: none">• Standard account number (business unit.object.subsidiary or flexible format)• Third G/L number (maximum of 25 digits)• 8-digit short account ID number• Speed code <p>The first character of the account indicates the format of the account number. You define the account format in the General Accounting Constants program.</p>

Mapping Equipment Category Codes

If you set up category codes for your business unit that would also be helpful for tracking and reporting on your equipment, you can set up default values to map, or associate specific business unit category codes to specific equipment category codes. You can also map specific equipment category codes to specific work order category codes.

When you set up an equipment master for a new piece of equipment, the system automatically enters the category codes that you specified from the responsible business unit on the equipment master. Similarly, when you set up work orders for

equipment, the system automatically enters the category codes that you specified from the equipment master on the work order. If you change the responsible business unit for a piece of equipment, the system reassigns equipment category codes based on the new business unit.

Note: The default values you set up on Category Code Mapping appear on Equipment Master only if the values are valid for the business unit and the equipment. For example, if you want to map the value for category code 05 from the business unit master to category code 08 on the equipment master, the values for both category code tables must match. The same applies when you map equipment category codes to work order category codes.

► To map equipment category codes

From the Equipment/Plant Management Setup menu (G1341), choose Category Code Mapping.

1. On Category Code Mapping, to specify whether you want to map business unit category codes to equipment category codes or work order category codes, complete the following field:
 - Mapping Type
2. Complete the following fields for each pair of category codes that you want to map:
 - Map to Category Code
 - Map from Category Code

Several category codes throughout the system exceed three characters in length. For codes that you map onto the equipment master or work order master, the system truncates any codes longer than three characters into a 3-character category code field.

Setting Up Specification Data

Use specification data to define which types of static data, such as nameplate information, you want to record for a particular equipment class. For each equipment class, you can create up to 99 pages of data with as many as 16 data fields per page. You can set up the sequence in which the data appears and specify the names for the various data fields.

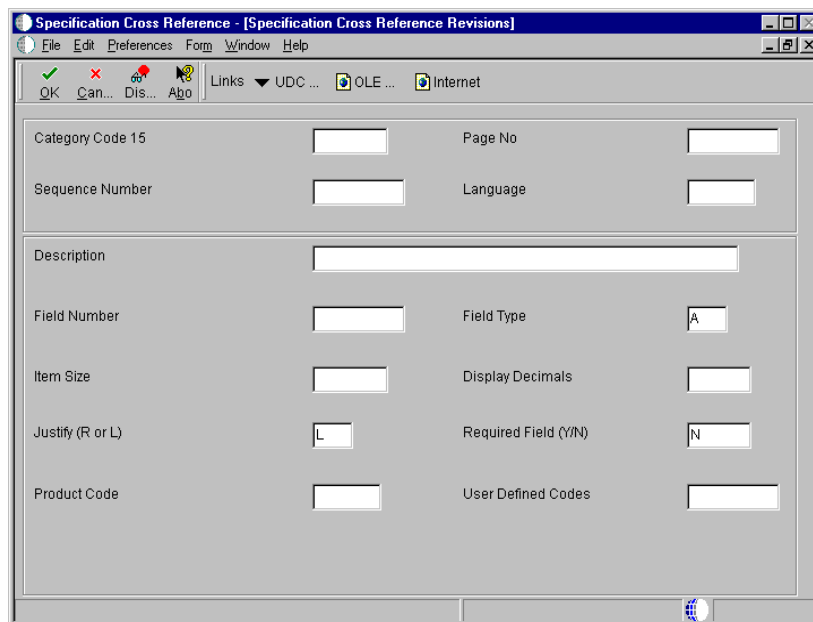
Before You Begin

- Verify that you have entered a supplemental category code on Fixed Asset Constants. See *Setting Up Equipment Constants*.

► To set up specification data

From the Supplemental Data Setup menu (G1344), choose Specification Cross Reference.

1. On Work With Specification Cross Reference, click Add to access Specification Cross Reference Revisions.



The screenshot shows a software dialog box titled "Specification Cross Reference - [Specification Cross Reference Revisions]". The dialog has a standard Windows-style menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", and "Ago", along with "Links", "UDC...", "OLE...", and "Internet". The main area of the dialog is a form with several input fields arranged in two columns. The fields are: "Category Code 15" (with a dropdown menu), "Page No", "Sequence Number", "Language", "Description" (a large text area), "Field Number", "Field Type" (with a dropdown menu showing "A"), "Item Size", "Display Decimals", "Justify (R or L)" (with a dropdown menu showing "L"), "Required Field (Y/N)" (with a dropdown menu showing "N"), "Product Code", and "User Defined Codes".

2. On Specification Cross Reference Revisions, in the upper leftmost field, type a value that corresponds to the equipment class for which you are setting up specification data.

The name of this field corresponds to the value that you enter in the Supplemental Category Code field on Fixed Asset Constants. In the example shown, this is Major Equipment Class.
3. Complete the following fields for each type of specification data that you want to set up:
 - Sequence Number
 - Description

- Field Number
 - Item Size
4. To edit specification data against a user defined code, complete the following optional fields:
- Product Code
 - User Defined Codes
- The value that you entered in the previous step for item size must match the size of the user defined code.
5. Complete the following optional fields:
- Display Decimals
 - Justify (R or L)
 - Required Field (Y/N)
 - Field Type
- If you do not enter a field type, the system enters a default value of A.
6. If the equipment class for which you are setting up specification data requires more than 16 specification data types, complete the following field to create a new page:
- Page No

Field	Explanation
Sequence Number	<p>A number that is used to sequence specification data. For any item of specification data, enter the number in the order you want it to appear on the Specification Data Entry form (World), or the Specification Data Revisions form (OneWorld).</p> <p>Note: After you define a specification data item, you cannot change its sequence number. If you need to revise the sequence in which a data item appears, you must type over existing data item information at the sequence number for which you want the data item to appear.</p>
Field Number	<p>This number defines which field in the Specification Data table you are setting up. For this field number, you can define a description, the sequence in which it will display, and any editing rules that you want to apply to the data.</p>

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Field	Explanation
Item Size	The field size of the data item. NOTE: All amount fields should be entered as 15 bytes, 0 decimals, and the data item type should be P (packed).
Product Code	A user defined code (98/SY) that identifies a J.D. Edwards system.
User Defined Codes	A code that identifies the table that contains user defined codes. The table is also referred to as a UDC type.
Display Decimals	A value that designates the number of decimals in the currency, amount, or quantity fields the system displays. For example, U.S. Dollars would be 2 decimals, Japanese Yen would be no decimals, and Cameroon Francs would be 3 decimals.
Required Field (Y/N)	A code that specifies whether a value is required. The default is N for Not Required. Valid codes are: Y or 1 - This value is required to be valid. N or 0 - This value is not required.
Field Type	Enter the type of data that the user will enter in the field on the Specification Data Entry form. Valid values are: A Alpha Numeric N Numeric D Date T Time
Page No	This is the page number within the Specification Sheets. The Specification Data file (F1216) contains only 32 fields per page. If a particular class of equipment needs more than 32 fields to store the static data, you will have to create a new page number with the file.

Understanding User Defined Codes

Many fields throughout Equipment/Plant Maintenance accept only user defined codes. You can customize fields in your system by setting up user defined codes to meet the needs of your business environment.

Note: Equipment/Plant Maintenance uses the category codes from the Fixed Assets system (12). Many forms throughout Equipment/Plant Maintenance display the first 10 of 23 category codes. J.D. Edwards recommends that you assign specific equipment needs to as many of the first 10 category codes as you need. This will help you to perform online searches for equipment. You can then use the remaining codes for fixed asset reporting needs.

Caution: User defined codes are central to J.D. Edwards systems. You must be thoroughly familiar with user defined codes before you change them.

The following user defined codes are primary to Equipment/Plant Maintenance:

Major Accounting Class (12/C1)

Use these codes to group equipment into categories, such as office equipment, furniture, heavy equipment, plant equipment, and so on.

J.D. Edwards recommends that you set up a one-to-one relationship with major accounting class and the asset cost account.

Major Equipment Class (12/C2)

Use these codes to further categorize equipment into subclasses. For example, set up codes to divide office equipment into groups such as copiers, computers, printers, and so on.

Additional Class (12/C3-C0, 12/F1-F0, 12/21-23)

Use these codes to further group equipment into meaningful classifications based on your needs. J.D. Edwards provides many predefined values. You can use the predefined values or modify them to your business needs. For instance, category

code 3 (12/C3) is set up as Manufacturer, category code 4 (12/C4) is Model Year, and so on.

If you use Equipment Billing, you must use category code 10 to define billing rate groups.

Equipment Status (12/ES)

Use these codes to identify the operational status of equipment, such as whether it is available, working, down, or disposed.

Equipment status codes might also be used by the Fixed Assets system to track types of disposals.

Equipment Message Type (12/EM)

Use these codes to define and group different types of messages, such as planned maintenance, problem reporting, lease terms, and so on.

Finance Methods (12/FM)

Use these codes to specify how a piece of equipment was acquired, such as leased or purchased outright. Finance method information is stored in the Asset Master table (F1201).

Ledger Types for Equipment Journal Entries (12/LT)

Use these codes to define the ledger types for various sets of books. The default ledger type for equipment transactions is AA (Actual Amounts). Any ledgers that you define in user defined code table 12/LT are in addition to the AA ledger. You are not required to specify any ledgers in this table.

Use special handling codes to indicate how you want the system to process data for these additional ledgers. Valid codes for this table's special handling codes are as follows:

- 1: Disconnect cost from the AA ledger
- 2: Post to equipment but not to the general ledger
- 9: Never post ledger to equipment
- blank: Create journal entries for this ledger

Note: You must also define all additional ledger types on General Accounting Ledger Types (09/LT).

Preventive Maintenance Service Type Codes (12/ST)

Use these codes to identify the different types of maintenance tasks that you assign to the preventive maintenance schedules for each piece of equipment, such as LUBE for equipment lubrication, INSPECT for safety inspection, and so on.

Preventive Maintenance Status Codes (12/MS)

Use these codes to identify the status of a maintenance task at a specific time. For example, you might set up a code to indicate that a maintenance task is waiting for parts and another code to indicate that the work is in progress.

Equipment/Plant Maintenance includes the following predefined status code values, which have special meaning to the system:

- 01: Maintenance schedule defined
- 98: Maintenance canceled
- 99: Maintenance complete

You can create any other status codes that you need.

Preventive Maintenance Category Codes 01 (13/P1, 13/P2)

Use these codes to categorize preventive maintenance schedules. For example, set up codes to divide preventive maintenance schedules into groups, such as critical and non-critical.

Type Codes (00/TY)

Use these codes to group work orders by type, such as emergency work order or preventive maintenance work order. The system displays this classification code field on Enter Work Orders and Backlog Management.

The Work Order Processing system includes predefined type code values. If these type codes do not meet your needs, you can modify them, or you can create new ones.

Work Order Priority Codes (00/PR)

Use these codes to group work orders by priority, such as urgent or low priority. The system displays this classification code field on Enter Work Orders and Backlog Management.

Work Order Status Codes (00/SS)

Use these codes to group work orders by current condition. You can update the status code for a work order as work progresses. The system displays this classification code field on a variety of forms related to the life cycle of a work order, such as Work With Work Orders and Work Order Details.

Work Order Category Code 01 (00/W1)

Category code 01 is a special four-character user defined code that appears on all work order forms and reports. You can use category code 01 for the work order phase or matter codes. Use phase or matter codes to do the following:

- Group families of work orders into phases or subcategories for project management and cost account purposes
- Group families of work orders on invoices by special matter or explanation code

If you do not want to use category code 01 for phase and matter codes, you can modify the predefined codes or create new ones.

Additional Work Order Category Codes (00/W2 - W0)

Use category codes 02 - 10 to customize and further define your work orders. Category codes 02 - 10 have no predefined values. The system displays the first ten category codes on Backlog Management. You can set up these codes to help you limit your search for work orders on Backlog Management.

For example, you can set up category code 2 as a work order failure code to indicate reasons for equipment failure. You could then set up codes to indicate equipment failure due to the following:

- Operator error
- Design flaw
- Lubrication or cooling problem

Work Order Document Types (00/DT)

Use these codes to differentiate between different types of work order transactions in the general ledger. For example, you can create document types for preventive maintenance work orders, corrective maintenance work orders, and so on.

Record Type Codes (00/RT)

Use record type codes to organize the descriptive information that you enter and track for your work orders. For example, you might set up record types to include the following types of information:

- Tool and equipment instructions
- Safety provisions
- Equipment down time

Summary Document Types (48/DC)

Use these codes to define the document types that the system displays on Cost by Work Order. For example, you can set up codes for the following document types:

- Inventory issues
- Work order inventory issues
- Accounts payable entries
- Time entries

Inventory Document Type (48/ID)

Use these codes to define the inventory document types that the system displays on the work order Estimate to Actual Variance form. For example, you can set up codes for the following types of inventory issues:

- Inventory issues
- Work order inventory issues

Bill Type (40/TB)

Use these codes to define the types of parts lists that you can assign to a work order, such as preventive maintenance parts lists, corrective maintenance parts lists, and so on.

Routing Type (40/TR)

Use these codes to define the types of labor routing instructions you can assign to a work order, such as preventive maintenance instructions, corrective maintenance instructions, and so on.

Setting Up Supplemental Data

Supplemental data consists of categories of information that you define to meet your unique business requirements. For Equipment/Plant Maintenance, you can use supplemental data to further define equipment or work orders in your system. After you set up supplemental data, you can use it to report on and track detailed information about equipment or work orders that is not included on the equipment master or work order master. For example, for equipment you might want to track supplemental data related to maintenance, such as vibration readings and oil readings.

You can record and track supplemental data in several J.D. Edwards systems, including the following:

- Address Book
- General Accounting
- Human Resources
- Asset Management
- Inventory Management
- Work Orders

Supplemental data is stored in unique databases for each system. When you set up supplemental data, you define the types of supplemental information that you want to track in each database. You define as many supplemental data types as you need. The methods by which you set up and maintain supplemental data are the same for all systems.

Note: The demonstration data that comes with Equipment/Plant Maintenance includes predefined supplemental databases for Asset Management and Work Orders. You can set up additional databases, but J.D. Edwards recommends that you do not alter the demonstration databases, particularly the key fields. The following table shows the name and supplemental database code for each database, as well as the key field for each:

Asset Management (AM) The key field for the asset management supplemental database is Asset Number.

Work Order (WO) The key field for the work order supplemental database is Document Number.

After you define supplemental data types, you can set up language preferences for each supplemental database. When you do so, the information that you enter appears in the language of your choice.

Setting up supplemental data consists of the following tasks:

- Defining supplemental data types
- Setting up language overrides for supplemental data
- Assigning supplemental data types to equipment

Defining Supplemental Data Types

You define types of supplemental data to specify categories of supplemental information and the specific information that you want to track for each category. Typical types of supplemental information for equipment might include the following:

- Capacity
- Transportation notes
- Vibration readings
- Oil Readings
- Specification sheets

Depending on your needs, you can define a supplemental data type in any of the following formats:

Narrative format (N) Narrative format allows you to enter information in free form text. You might want to use the narrative format for the following:

- Transportation notes
- Detailed equipment descriptions
- Problem reports

Code format (C)

The system provides two code formats. Format C edits supplemental against user defined codes. Format M edits data against Generic Rates and Messages.

When you use format C, the system requires you to enter information in specific fields on the data entry form. You might want to use the code format for the following:

- Dimensions, such as height, length, and width
- Oil analysis readings
- Equipment vibration readings

When you define supplemental data types using this format, you can define the columns into which you enter information. The system edits the values that you enter in the columns against the user defined code table that you specify on Data Type Revisions.

The format M functions similarly to the format C, with the exception that the system edits the supplemental data that you enter against the Generic Rates and Messages table that you set up in Generic Rates and Message Records.

You can use either of the two code formats to set up a supplemental data type in a columnar format. Regardless of the format that you choose, you are not necessarily required to enter a user defined code against which the system edits data.

Program format (P)

Use the program format to access a specific program and version number from a supplemental data type. Instead of customizing menus, you can set up supplemental data types to access the forms that you use most often. Setting up supplemental data types in this manner allows you to access these forms from a single menu selection, which saves you time and streamlines your data entry tasks.

Note: If you use specification sheets, you must set up supplemental data type SP using the program format.

Defining supplemental data types consists of:

- Defining supplemental data types in narrative format
- Defining supplemental data types in code format

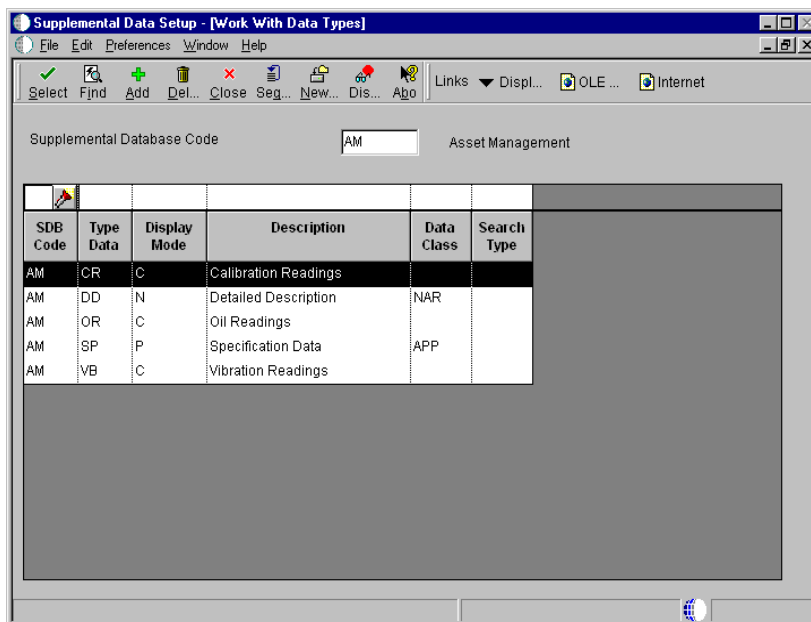
- Defining supplemental data types in program format

► To define supplemental data types in narrative format

From the Supplemental Data Setup menu (G1344), choose Supplemental Data Setup.

1. On Work With Supplemental Database Setup, click Find.
A list of all supplemental databases appears in the detail area of the form.
2. Choose the supplemental database for which you want to define data types and then from the Row menu, choose Work With Data Types.

Supplemental data for equipment uses the Asset Management supplemental database. Supplemental data for work orders uses the Work Order supplemental database.



3. On Work With Data Types, click Add to access Data Type Revisions.

Supplemental Data Setup - [Data Type Revisions]

File Edit Preferences Form Window Help

OK Can... Dis... Abo Links Applic... OLE ... Internet

SDB Code AM Display Mode [v] Display Sequence []

Type Data [] Data Class [] Search Type []

Description []

UDC Headings/Validation

UDC []

Product Code [] Record Type []

Remark Headings/Validation

Remark 1 []

System Code [] Record Type []

Remark 2 []

System Code [] Record Type []

Column Headings

Amount 1 []

Amount 2 []

Quantity []

Effective From []

Effective Thru []

User Date []

User Days []

User Address []

User Document []

4. On Data Type Revisions, enter N in the following field:
 - Display Mode
5. Complete the following fields and click OK:
 - Description
 - Display Sequence
 - Type Data
 - Data Class
 - Search Type

Field	Explanation
Display Mode	<p>A code that specifies the format of a data type. This code determines the display mode for supplemental data. Valid codes are:</p> <ul style="list-style-type: none"> C Code format, which displays the form for entering code-specific information. These codes might be associated with the User Defined Codes (F0005) table. N Narrative format, which displays the form for entering narrative text. P Program exit, which allows you to exit to the program you specified in the Pgm ID field. M Message format, which displays the form for entering code-specific information. The system can edit the code values you enter against values in the Generic Rates and Messages table (F00191). This code is not used by the Human Resources or Financials systems. <p>.....<i>Form-specific information</i>.....</p> <p>This is a required field for setting up any data type.</p>
Display Sequence	<p>A number that reorders a group of records on the form.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is an optional field for setting up data types. You can specify a display sequence number for each data type. When you use the Work With Supplemental Data form, the data types appear in the order you specified.</p>
Type Data	<p>A code that you assign to supplemental data so that you can group data by categories.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is a required field for setting up any data type. You can use an existing data type, or you can create a new data type by entering one or two characters for the code.</p>

Field	Explanation
Data Class	<p>A user defined code (00/CL) that identifies a group of data types in the Central Information File.</p> <p>.....<i>Form-specific information</i>.....</p> <p>This is an optional field for setting up any data type. Data classifications must be set up in UDC Data Classifications (00/CL) before you can use them.</p> <p>Complete this field if you want to categorize your data types by the kind of information they contain. For example, if you have both narrative and code format data types that contain information about products purchased, you might want to assign the same data classification to both of these data types.</p>
Search Type	<p>A user defined code (01/ST) that identifies the kind of address book record that you want the system to select when you search for a name or message. Examples include the following:</p> <ul style="list-style-type: none"> E Employees X Ex-employees V Suppliers C Customers P Prospects M Mail distribution lists T Tax authority <p>.....<i>Form-specific information</i>.....</p> <p>This is an optional field for setting up any data type. Search types must be set up in UDC Search Type (01/ST) before you can use them.</p>

► To define supplemental data types in code format

From the Supplemental Data Setup menu (G1344), choose Supplemental Data Setup.

1. On Work With Supplemental Database Setup, click Find.
A list of all supplemental databases appears in the detail area of the form.
2. Choose the supplemental database for which you want to define data types and then from the Row menu, choose Work With Data Types.
Supplemental data for equipment uses the Asset Management supplemental database. Supplemental data for work orders uses the Work Order supplemental database.

3. On Work With Data Types, click Add to access Data Type Revisions.
4. On Data Type Revisions, enter C in the following field:
 - Display Mode
5. Complete the following fields:
 - Type Data
 - Description
6. To specify the information that you want to track for this data type, complete the following fields in the Column Heading area of the form:
 - Effective From
 - Amount 1
7. To associate a user defined code table with the code title, complete the following fields in the UDC Headings/Validation area of the form:
 - UDC
 - Product Code
 - Record Type
8. To enter additional information for the data type, complete any of the following optional fields and click OK:
 - Remark 1
 - Remark 2
 - Amount 2
 - Effective Thru

Field	Explanation
Effective From	<p>The title of a supplemental data column that relates to a date. For example, a possible column heading for the date field linked to a data type for education might be Graduation.</p> <p>.....<i>Form-specific information</i>.....</p> <p>Data you enter in the Effective From (alias GDC5) field overrides the Effective Date (alias EFT) column heading name in the detail area on the General Description Entry form.</p> <p>This is an optional field for setting up supplemental data types in code format.</p>
Amount 1	<p>The title of a supplemental data column that relates to an amount. For example, if the data type relates to bid submittals, the heading could be Bid Amounts. This column contains statistical or measurable information.</p> <p>.....<i>Form-specific information</i>.....</p> <p>Data you enter in the Amount 1 (alias GDC1) field overrides the User Defined Amount (alias AMTU) column heading name in the detail area on the General Description Entry form.</p> <p>This is an optional field for setting up supplemental data types in code format.</p>

Field	Explanation
UDC	<p>The title of a supplemental data column that relates to a user defined code. For example, if the supplemental data type relates to the educational degrees of employees (BA, MBA, PHD, and so on), the heading could be Degree. This column contains user defined codes.</p> <p>.....<i>Form-specific information</i>.....</p> <p>Data you enter in the UDC (alias GDC1) field overrides the UDC (alias KY) column heading name in the detail area on the General Description Entry form. You can set up this field as a generic field or as a field that is associated with user defined codes.</p> <p>If you leave the corresponding Product Code (alias SY) and Record Type (alias RT) fields blank, then on the General Description Entry form, the system accepts any data (within the size constraints) that you enter in the data entry field for the UDC (alias KY) column.</p> <p>If you complete the corresponding System Code (alias SY1) and Record Type (alias TR1) fields, then on the General Description Entry form, the system validates the data you enter in the data entry field for the UDC (alias KY) column.</p> <p>This is an optional field for setting up supplemental data types in code format.</p>

► To define supplemental data types in program format

From the Supplemental Data Setup menu (G1344), choose Supplemental Data Setup.

1. On Work With Supplemental Database Setup, click Find.
A list of all supplemental databases appears in the detail area of the form.
2. Choose the supplemental database for which you want to define data types and then from the Row menu, choose Work With Data Types.
Supplemental data for equipment uses the Asset Management supplemental database. Supplemental data for work orders uses the Work Order supplemental database.
3. On Work With Data Types, click Add to access Data Type Revisions:
4. On Data Type Revisions, enter P in the following field:
 - Display Mode

5. Complete the following fields:
 - Display Sequence
 - Type Data
 - Data Class
 - Search Type

6. To specify the program that you want this data type to access, complete the following fields:
 - Application Name
 - Form Name

7. Complete the following optional field and click OK:
 - Version

Field	Explanation
Application Name	The ID that the system uses to call an application.
Form Name	The name of an executable program. <i>Form-specific information</i> Enter the system name of a form that is associated with an application. To determine the system name of a form, open the form and choose About OneWorld from the Help menu.
Version	A user-defined set of specifications that control how applications and reports run. You use versions to group and save a set of user-defined processing option values and data selection and sequencing options. Interactive versions are associated with applications (usually as a menu selection). Batch versions are associated with batch jobs or reports. To run a batch process, you must choose a version.

Setting Up Language Overrides for Supplemental Data

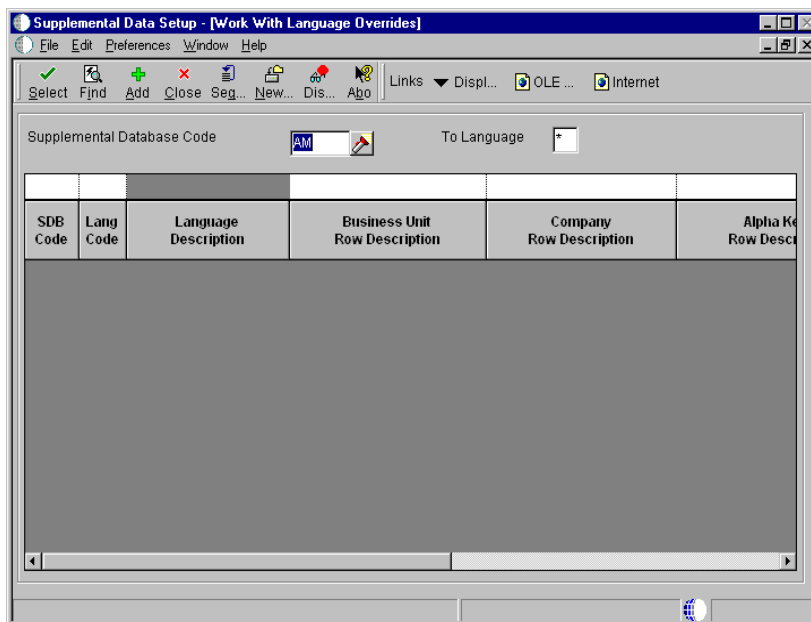
You can set up language overrides for supplemental data. Language overrides enable users to enter and view supplemental information in a language other than English. Language overrides allow you to write and view your database descriptions in the language that you specify. For example, you can assign a Spanish language code and enter a business unit or company description in

Spanish. You can later view the supplemental database information in Spanish by selecting the Spanish language code.

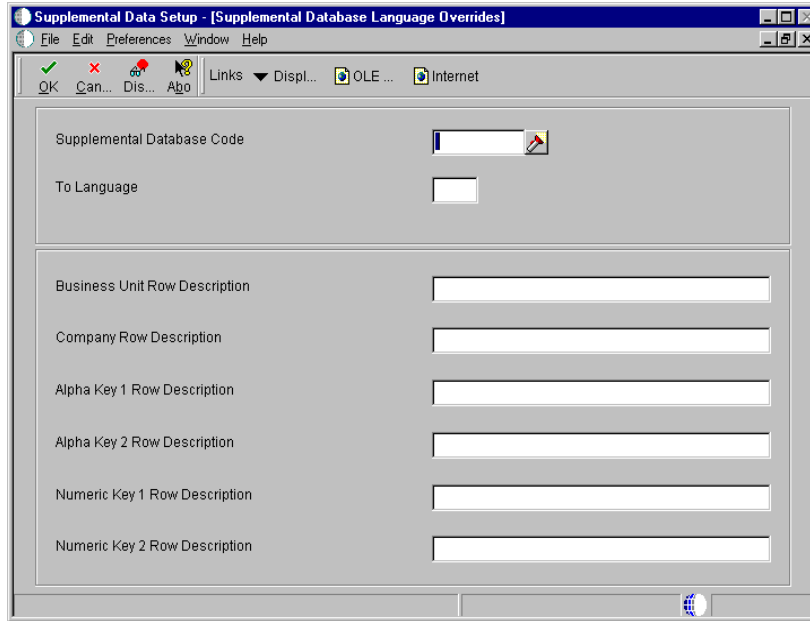
► **To set up language overrides for supplemental data**

From the Supplemental Data Setup menu (G1344), choose Supplemental Data Setup.

1. On Work with Supplemental Database Setup, choose Work With Language Preferences from the Form menu.



2. On Work with Language Overrides, complete the following field and click Add to override a supplemental database language:
 - Supplemental Database Code



3. On Supplemental Database Language Overrides, complete the following field:
 - Language

4. Complete any of the following optional fields and click OK:
 - Business Unit Row Description
 - Company Row Description
 - Alpha Key 1 Row Description
 - Alpha Key 2 Row Description
 - Numeric Key 1 Row Description
 - Numeric Key 2 Row Description

Field	Explanation
Supplemental Database Code	A code that you use to set up databases for groups of related supplemental data types. This code differentiates the supplemental data types for various systems. For example, the Employee (E) supplemental database contains data types that you use to track additional employee information, such as education and job skills. The supplemental database code is used only in the OneWorld version of the Supplemental Database.

Field	Explanation
Language	<p>A user defined code (01/LP) that specifies a language to use in forms and printed reports.</p> <p>Before specifying a language, a language code must exist at either the system level or in your user preferences.</p>
Business Unit Row Description	<p>A field that enables you to override the default description for Business Unit in the Supplemental Database inquiry and entry programs. If you leave this field blank, the system uses the default description from the data dictionary.</p>
Company Row Description	<p>A field that enables you to override the default description for the Document Company in the Supplemental Database inquiry and entry programs. If you leave this field blank, the system uses the default description from the data dictionary.</p>
Alpha Key 1 Row Description	<p>A field that enables you to override the default description for the data dictionary alias you entered as a key field for the Supplemental Database inquiry and entry programs. If you leave this field blank, the system uses the default description from the data dictionary.</p>
Numeric Key 1 Row Description	<p>A field that enables you to override the default description for the data dictionary alias you entered as a key field for the Supplemental Database inquiry and entry programs. If you leave this field blank, the system uses the default description from the data dictionary.</p>

Assigning Supplemental Data Types to Equipment

You can define which types of supplemental data appear for a specific class of equipment. For example, you might want to track separate supplemental data types for electrical equipment and diesel-powered equipment. You can specify that supplemental data types for electrical equipment, such as voltage, amperage, and so on, do not appear for equipment for which the data is not applicable.

If you choose not to assign supplemental data types, all supplemental data types that you define will appear for all classes of equipment. You specify the category code that you want to use to define the equipment class on Equipment Constants.

Before you Begin

- Define the supplemental category code on Equipment Constants. See *Setting up Equipment Constants*.

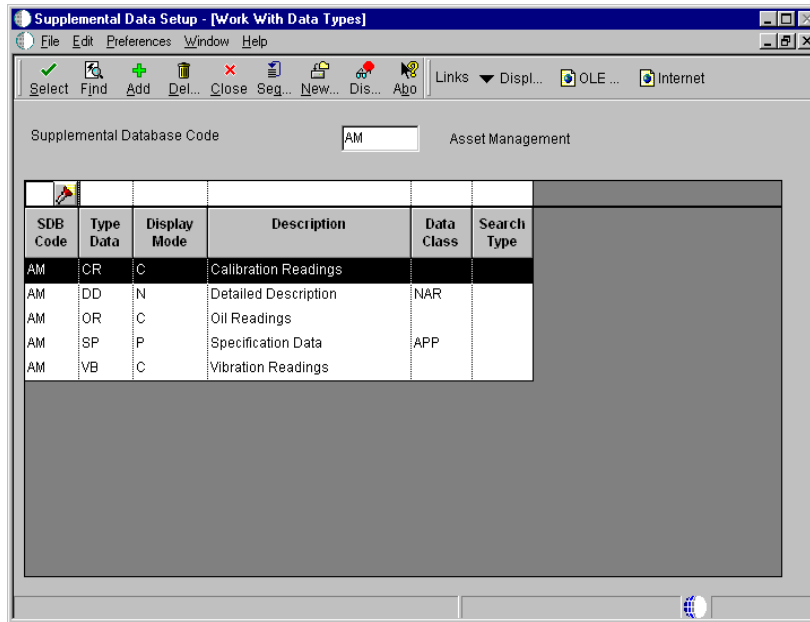
► To assign supplemental data types to equipment

From the Supplemental Data Setup menu (G1344), choose Supplemental Data Setup.

1. On Work with Supplemental Database Setup, complete the following field:
 - Supplemental Database Code

The value that you enter must be a value from the user defined code table you defined in equipment constants for supplemental data. For example, if you defined equipment category code 1 as your supplemental category code in equipment constants, you can enter any value from equipment category code 1 in this field.

2. From the Row menu, select Work with Data Types.



3. On Work with Data Types, assign all data types that you want to associate with the type or class of equipment.

Related Tasks

Alternate display format You can review all of the category codes for which a specific data type is valid by entering the data type in the Type Data field and leaving the Category Code Value field blank. All of the category codes appear for which that data type is valid.

Setting Up Job Cost Inquiry

You use Job Cost Inquiry to review maintenance costs for an individual business unit or work center by repair code. Before you can use Job Cost Inquiry, you must define the information that you want to review. You define the information that you want to review by defining and naming inquiry columns, such as budget amount, actual amount, and so on.

You set up the columns and column versions to display job status information on the Job Status Inquiry form. Column definitions are required, but column versions are optional.

Columns determine how the system displays your information. You can define columns by setting up specific formulas by which the system calculates the value that it displays.

You can save up to 30 columns in a version. When you choose the Job Status Inquiry - User Defined Columns form, you enter your user defined version in the Column Version field to direct the system to display the job cost information in the format that you established. The inquiry columns are also used on the Account and Job Progress Entry forms.

The user defined column information is stored in the Inquiry Columns table (F5192).

Setting up Job Cost Inquiry consists of the following task:

- Defining inquiry columns

Defining Inquiry Columns

You must define the columns that you use on Job Status Inquiry to display your information. When you define a column, you can include the following information:

- Column name
- Column heading
- The formula by which the information displayed in the column is calculated

Formula Descriptions (51/FM)

The information for this code type cannot be changed. The FM code identifies the following sources:

- Actual values from the AA or AU ledger.
- Original budget values from the JA or JU ledger.
- Revised budget values from the JA or JU ledger.
- Total value of the original budgets from all the ledgers defined for budget amounts and budget units (Ledger Type Master table (F0025)). A revised budget equals the original budget plus any change orders. See *Working with Ledger Types for Job Cost*.
- Total value of the revised budgets from all the ledgers defined for budget amounts and budget units (Ledger Type Master table (F0025)). See *Working with Ledger Types for Job Cost*.
- Open commitment values from the PA or PU ledger.
- Total contract values from the PA or PU ledger.
- Projected final values from the HA or HU ledger.
- Projected over/under values from the FA or FU ledger.
- Actual values from the AA or AU ledger for the number of days prior to the thru date. These values are affected by the Thru Date/Period field and the Days field on the Job Status Inquiry - User Defined Columns form.
- Percent complete based on the method of computation for each account.

The formula descriptions relate to the following codes:

- For amounts, the valid codes are 1 through 10 and 61.
- For unit quantities at the detail level, the valid codes are 21 through 30.
- For unit quantities at the header account level, the valid codes are 41 through 50.

Inquiry Ledger Types (51/IL)

This code type table lets you identify any additional ledgers from which the system can retrieve amounts or unit quantities for the Job Status Inquiry - User Defined Columns form. The Define Inquiry Columns form can display up to 10 additional descriptions and automatically assigns the following codes to them:

- For amounts, the valid codes are 11 through 20.

- For unit quantities, the valid codes are 31 through 40.
- For unit quantities at the header account level, the valid codes are 51 through 60.

Mathematical Functions

The calculation can include the four basic mathematical functions along with parentheses for nesting values. The valid symbols for mathematical functions are as follows:

- + Addition
- - Subtraction
- * Multiplication
- / Division
- () Left and right parentheses

Examples

The following list provides examples of different ways you can combine the codes and mathematical functions to create calculations:

- Actual amount: 1
- Actual unit rate: 1/21
- Total commitments: 1 + 6
- Unit rate variance: (1/21) - (5/25)

If the column relates to the specific value contained in a ledger, the calculation consists of only one code.

► To define inquiry columns

From the Job Cost Setup menu (G5141), choose Define Inquiry Columns.

1. On Work with Job Status Inquiry Columns, click Find to review the current user defined columns.
2. To define a new column, click Add.

Description	Amount	Unit	Header Units
Total Contract Values	7	27	47
Projected Final Values	8	28	48
FAVFU Projected Over/Under	9	29	49
Days Prior Actual Values	10	30	50
Memo Budget Orig & Chgs	11	31	51
Memo Budget Changes	12	32	52
Percent Complete	61	---	---

3. On Define Inquiry Columns, complete the following fields:

- Column Name
- Description
- Column Heading 1
- Column Heading 2
- Formula

After you complete the Column Name field and tab to the next field, the system enters values in the detail area of the form so that you can use values in the Amount field to enter your formula. If you use a value other than what is available in the Amount field, the system displays an error message.

4. If your company uses large numbers, and you want to minimize data entry, click the Display tab and complete the following field:

- Multiplier

When you review your job information on the Job Status Inquiry - User Defined Columns, the amounts are expanded to the full number.

5. To save your entry, click OK.

6. To return to the Work with Job Status Inquiry Columns form, click Cancel.

Field	Explanation
Column Name	An alphanumeric code that identifies a column. A column represents a performance factor, such as the average unit cost for an item and the last cost that you paid for an item. For example, you can review performance factors to compare suppliers' costs and services for a certain item.
Description	A user defined name or remark.
Column Heading 1	The first line in the heading that describes the column. The system automatically centers this line for the column.
Column Heading 2	The second line in the heading that describes the column. The system automatically centers this line for the column.
Formula	<p>A calculation that the system uses to determine an amount or quantity for this column. You can use a single predefined value or multiple predefined values in conjunction with mathematical operators to enter a formula. Valid mathematical operators are:</p> <ul style="list-style-type: none"> + Add - Subtract * Multiply / Divide () Left and right parentheses for nesting <p>For example, you can enter the following formula to have the system calculate on-time percentages:</p> $20/(20+21+22)$ <p>The formula above equals on-time percentages because:</p> <ul style="list-style-type: none"> • 20 is the value for on-time amounts • 21 is the value for early amounts • 22 is the value for late amounts
Multiplier	<p>The factor by which the amounts or unit quantities in a column are multiplied. The result of the calculation in the Formula field is multiplied by this factor before it is displayed on the Job Status Inquiry screen.</p> <p>For example, if you want to scale down extremely large numbers to thousands, type .001 in this field. If you want percentages to be displayed as whole numbers, type 100.</p>

Setting Up PM Schedule Information

Preventive maintenance (PM) schedules are the foundation of your preventive maintenance program. PM schedules determine the types of service and the frequency of each service type for each piece of equipment that you maintain. Before you can use the preventive maintenance features of Equipment/Plant Maintenance, you must provide the system with the following PM schedule information:

- | | |
|----------------------------|--|
| Standard procedures | When you set up a PM schedule for a piece of equipment, you can assign standard procedures to the various maintenance tasks. The system uses standard procedures in the same way as user defined codes, with the exception that you can attach virtually unlimited text to a standard procedure. |
| Maintenance rules | Maintenance rules determine when the system schedules preventive maintenance tasks. In addition, maintenance rules can do the following: <ul style="list-style-type: none">• Determine the status of scheduled tasks• Assign default values for the assigned work order• Assign default values for the business unit to be charged for the maintenance task• Determine when maintenance is due based on threshold percentages |

Setting up PM schedules consists of the following tasks:

- Setting up standard procedures
- Setting up maintenance rules

Before You Begin

- Set up the following user defined codes:
 - Service types (12/ST)
 - Maintenance status (12/MS)

- Work order type (00/TY)
- Work order priority (00/PR)
- Work order status (00/SS)

See Also

- *Understanding User Defined Codes*

Setting Up Standard Procedures

You can define standard procedures (sometimes referred to as standard instructions) that apply to your PM schedules and work orders. You can then add unlimited text to describe the procedures. For example, assume that you have set up a service type for a 500-hour equipment inspection. You can define a standard procedure for a 500-hour equipment inspection and add text that describes the steps that are required for the inspection.

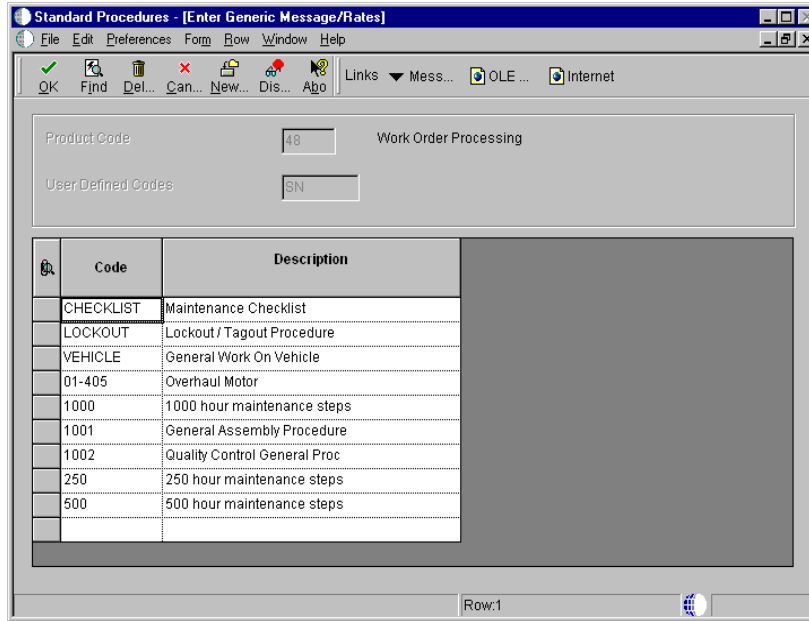
After you set up standard procedures, you can attach them to the following programs:

- Work Order Entry (P48011)
- Equipment PM Schedule (P1207)
- Work Order Routing (P3112)

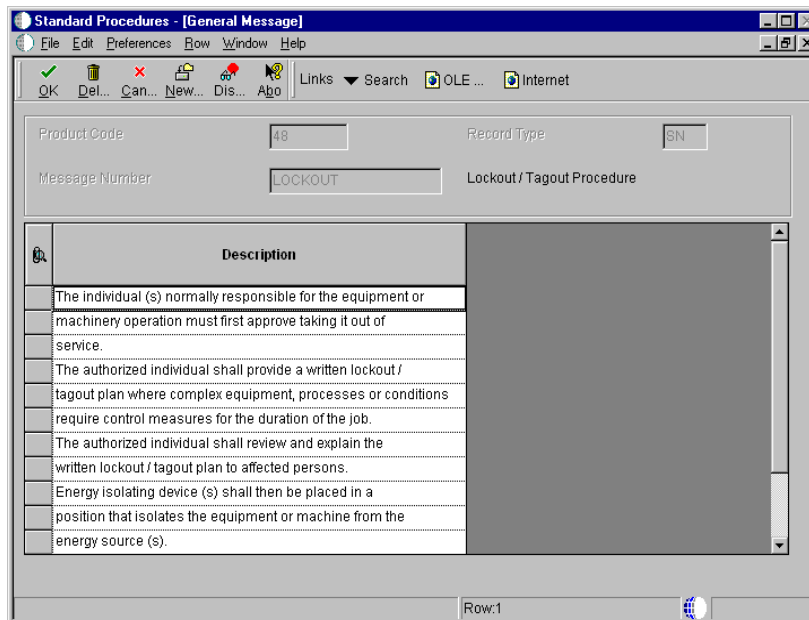
► To set up standard procedures

From the Maintenance Setup menu (G1345), choose Standard Procedures.

1. On Work With Generic Message/Rate Types, complete the following fields and click Find:
 - Product Code
Type 48.
 - User Defined Codes
Type SN.These fields might already contain default values.
2. Choose the record for Standard Descriptions and click Select.



3. On Enter Generic Message/Rates, complete the following fields for each procedure that you want to define and click OK:
 - User Defined Code
 - Description
4. To add text for the procedure, choose the procedure, choose its record, and from the Row menu, choose General Message.



5. On General Message, enter text for the procedure.

Field	Explanation
Product Code	A user defined code (98/SY) that identifies a J.D. Edwards system.
Description	A user defined name or remark.

Processing Options for Generic Message Rates (P00191)

Defaults

1. Enter the desired System Code.

System Code _____

2. Enter the desired Record Type.

Tax Authority 5 _____
Record Type _____

Display

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

Text Type _____

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

Text Column Display _____

Setting Up Maintenance Rules

To use the preventive maintenance features in Equipment/Plant Maintenance, you must set up maintenance rules. Maintenance rules determine the maintenance status that the system assigns to a PM for a service type when the service type is due to be performed.

For example, assume you have defined a service type for equipment lubrication, with a 100-hour maintenance interval. Also assume that you have defined maintenance rules for that service type that direct the system to assign a maintenance status of 50 (Maintenance Due) whenever 100 hours have elapsed. After 100 hours have elapsed and you update the PM schedule status, the system automatically assigns a maintenance status of 50 to the PM for equipment lubrication.

In addition to assigning a maintenance status to PMs, you use maintenance rules to do the following:

- Define the threshold percentage when maintenance is due

- Determine the assigned work order status, type, and priority if you use model work orders
- Specify the status of associated service types that might already be scheduled and combine work orders for associated service types to the work order for the primary service type

How Does the System Apply Maintenance Rules?

The system searches for rules to apply to a maintenance task using the following sequence:

1. Searches for and applies a rule for which both an equipment number and a service type have been assigned
2. Searches for and applies a rule for which an equipment number has been assigned, but no service type
3. Searches for and applies a rule for which a service type has been assigned, but no equipment number
4. Applies the global default rule for which no equipment number or service type has been assigned

At a minimum, you must set up a global default maintenance rule with a blank equipment number and a blank service type. For any equipment whose maintenance rules must deviate from the global default rule, you can create specific rules that include the equipment number and service type. You can also set up default rules by the following:

- Equipment number with no service type
- Service type with no equipment number

► To set up maintenance rules

From the Maintenance Setup (G1345), choose Maintenance Rules.

1. On Maintenance Rules, complete the following PM-related fields in the detail area:
 - Asset Number-Input
 - Service Type
 - Thru %

- PM Status
2. Complete the following work order-related fields:
 - WO Type
 - WO Status
 - WO Priority
 - WO Desc.
 - WO BU
 - Approval Type
 3. Complete the following associated PM fields, if applicable:
 - Assoc. From
 - Assoc. To

Field	Explanation
	A user defined code (system 12, type ST) that describes the preventive maintenance service to be performed. Examples of codes include CLUTCH for adjust clutch, OIL for change oil, 10H for 10 hour service, and so forth.
Thru %	<p>A percentage measure that indicates how close a piece of equipment is to needing maintenance. This percentage is based on the greater of the actual date, miles, hours, or fuel consumption. A percentage of 090 indicates that the piece of equipment is 10% away from needing maintenance. A percentage greater than 100 indicates that maintenance is past due.</p> <p>NOTE: Miles, hours, and fuel are only examples of statistical units. You can define other statistical units appropriate to your organization within the Equipment/Plant Management automatic accounting instructions.</p>
PM Status	<p>A user defined code (12/MS) that indicates the maintenance status of a piece of equipment, such as 50 for maintenance due or 60 for waiting for parts.</p> <p>Note: Status code 98 is reserved for canceled maintenance. Status code 99 is reserved for completed maintenance. Status code 01, the default, is reserved for initial maintenance setup.</p>

Field	Explanation
WO Type	<p>A user defined code (00/TY) that indicates the classification of a work order or engineering change order.</p> <p>You can use work order type as a selection criterion for work order approvals.</p>
WO Status	<p>A user defined code (system 00, type SS) that describes the status of a work order.</p>
WO Priority	<p>A user defined code (00/PR) that indicates the relative priority of a work order or engineering change order in relation to other orders.</p> <p>A processing option for some forms lets you enter a default value for this field. The value then displays automatically in the appropriate fields on any work order you create on those forms and on the Project Setup form. You can either accept or override the default value.</p>
WO BU	<p>A code that determines which Business Unit will be used as the Charge to Business Unit on Assigned Work Orders that are created when items are scheduled for maintenance.</p> <p>Codes are:</p> <ol style="list-style-type: none"> 1 Use the Charge to Business Unit from the Model Work Order on the Assigned Work Orders. 2 Use the Responsible Business Unit from the Item Master (F1201) as the Charge to Business Unit on the Assigned Work Orders.
Assoc. From	<p>The first code in a range of codes that identifies which associated service types already scheduled for maintenance should be grouped together. These service types are grouped with the primary service type and assigned to the same work order. For example, if a monthly vehicle inspection and an annual vehicle inspection occur in the same month, the system would group the monthly inspection (associated service type) with the annual inspection (primary service type) and assign it to the same work order.</p>

See Also

- *Creating a Model Work Order for a PM Service Type* for more information about assigned work orders
- *Linking Service Types* for more information about associated service types and threshold percentage

Setting Up Work Orders

Before you can use the work order features in Equipment/Plant Maintenance, you must provide the system with information necessary to customize work orders for your business needs. For example, you can set up different managers and supervisors for work orders, based on work order category codes. When you assign category codes to a new work order, the system automatically assigns the correct managers and supervisors.

In addition to setting up managers and supervisors, you must set up the following:

Work order next numbers You set up the beginning number for work orders. The system assigns a unique number for each work order generated.

Record type information You use record types to organize and track detailed information about a work order, such as its full description, final disposition, and so on. You can then track the information according to the record type to which you assigned the information.

Work order activity rules You can set up rules that specify the statuses or steps through which a work order must pass. In addition, you can specify that certain statuses trigger events in the work order life cycle, such as the following:

- Updating the maintenance status
- Locking the work order
- Completing the Subledger Inactive Code field for the work order

Work order approvers You specify the individuals that are responsible for approving work orders at various points in the work order life cycle.

Standard parts lists and work order instructions

You can set up standard parts lists for work orders. You use a standard parts list when the maintenance task for which the work order applies is routine and repetitive, and for which you have advance knowledge of the parts requirements.

You can set up standard work order instructions for a work order. Work order instructions specify the sequence of operations required to complete a work order, as well as the work centers responsible for each operation. You use standard work order instructions when the maintenance task for which the work order applies is routine and repetitive, and when you have advance knowledge of the labor requirements.

To use standard work order instructions, you must set up work center information and information about the sequence of operations.

Default user locations and printers

Many of the forms within the Work Order system require you to specify a location, such as a branch or plant, to which you are assigned. You can set up default locations for each person in your organization who uses the Work Order system. You can also assign a default print queue to each person. When a person prints a work order, the system uses the default print queue that you set up unless the person specifies otherwise.

Supply and demand inclusion rules

You must set up rules that govern which document types and document statuses create a supply or demand for parts.

Setting up work orders consists of the following tasks:

- Setting up default managers and supervisors
- Setting up work order next numbers
- Setting up record types
- Setting up work order activity rules
- Setting up work order approval routes
- Setting up work order approver profiles
- Setting up standard parts lists and work order instructions

- ❑ Defining default location and printers
- ❑ Setting up supply and demand inclusion rules

Due to system integration features, you access other J.D. Edwards systems to complete certain setup tasks. The guidelines for completing these tasks are discussed as needed in this chapter.

Setting Up Default Managers and Supervisors

When you create a work order, you can specify that the system automatically enter the address book information for managers and supervisors based on any combination of the first three work order category codes. The system automatically enters address book values in the following fields on Work Order Entry:

- ANPA (Supervisor)
- ANSA (Manager)

You can set up as many versions of default managers and supervisors as you need. For example, you can assign a specific manager and supervisor to every work order with a failure code (category code 02) of F1 - Improper start-up or operation. You can assign another manager and supervisor to every work order with a failure code of F2 - Improper installation or repair.

► To set up default managers and supervisors

From the Work Order Setup menu (G4841), choose Work With Work Order Default Codes.

1. On Work With Work Order Default Codes, click Add to access Default Supervisor and Manager.

Work With Work Order Default Codes - [Default Supervisor and Manager]

File Edit Preferences Window Help

OK Can... Dis... Abto Links Displ... OLE ... Internet

Phase/System

Computer

Release

Supervisor Abbott, Dominique

Manager Allen, Ray

2. On Default Supervisor and Manager, complete any of the following fields:

- Phase/System
- Computer
- Release
- Supervisor
- Manager

You must complete at least one category code field and one address book field for each version of default managers and supervisors that you set up.

Field	Explanation
Phase/System	<p>A user defined code (00/W1) that indicates the current stage or phase of development for a work order. You can assign a work order to only one phase code at a time.</p> <p>Note: Certain forms contain a processing option that allows you to enter a default value for this field. If you enter a default value on a form for which you have set this processing option, the system displays the value in the appropriate fields on any work orders that you create. The system also displays the value on the Project Setup form. You can either accept or override the default value.</p> <p>Note: A processing option for the SAR Entry lets you enter a default value for this field. The value then displays automatically in the System Code field on the SAR Entry form when you add a new SAR. You can either accept or override the default value.</p>
Computer	<p>A user defined code (00/W3) that indicates the type or category of the work order.</p> <p>Note: A processing option for some forms allows you to enter a default value for this field. The system enters the default value automatically in the appropriate fields on any work orders that you create on those forms and on the Project Setup form. You can either accept or override the default value.</p> <p>Note: A processing option for the SAR Entry lets you enter a default value or this field. The value then displays automatically in the Release To Fix field on the SAR Entry form when you add a new SAR. You can either accept or override the default value.</p>
Release	<p>A user defined code (00/W2) that indicates the type or category of a work order.</p> <p>Note: A processing option for some forms lets you enter a default value for this field. The system enters the default value automatically in the appropriate fields on any work orders that you create on those forms and on the Project Setup form. You can either accept or override the default value.</p> <p>Note: A processing option for the SAR Entry lets you enter a default value for this field. The value then displays automatically in the Computer field on the SAR Entry form when you add a new SAR. You can either accept or override the default value.</p>

Field	Explanation
Supervisor	<p>The address book number of the supervisor.</p> <p>Note: A processing option for some forms allows you to enter a default value for this field based on values for category codes 1 (Phase), 2, and 3. Set up the default values on the default Managers and Supervisor form. The system will automatically display the information you specified on all work orders you create if the category code criterion is met. You can override the default value.</p>
Manager	<p>The address book number of a manager or planner.</p> <p>Note: A processing option for some forms allows you to enter a default value for this field based on values for category codes 1 (Phase), 2, and 3. You set up the default values on the Default Managers and Supervisors form. After you set up the default values and the processing option, the default information displays automatically on any work orders that you create if the category code criterion is met. You can either accept or override the default value.</p>

Setting Up Work Order Next Numbers

When you set up work order next numbers, you enable the system to automatically assign unique numbers for each work order generated by you or the system.

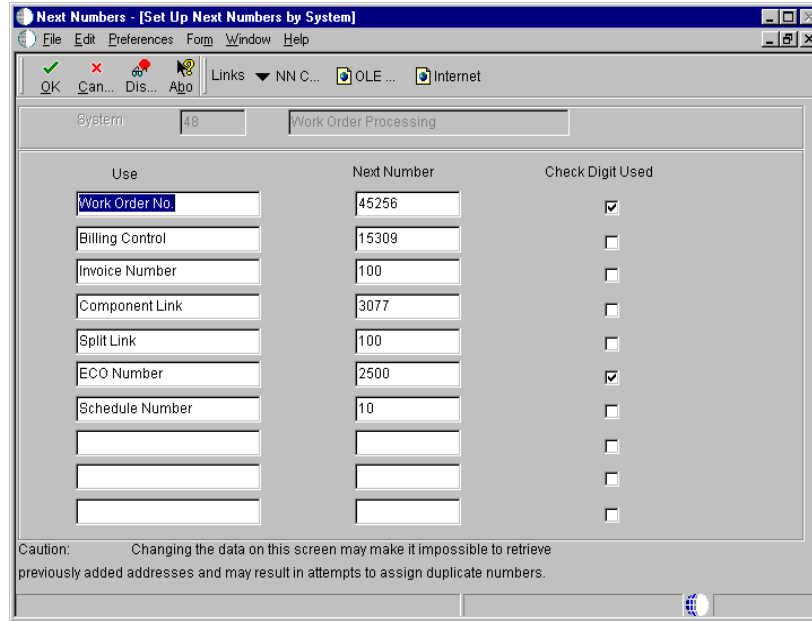
The system stores next numbers for work orders in the Work Orders/Service Billing system (system 48). The system generates next numbers from the Next Numbers table (F0002).

Caution: J.D. Edwards strongly recommends that you do not use blank as a next number value.

► To set up work order next numbers

From the Equipment Setup menu (G1341), choose Next Numbers.

1. On Work With Next Numbers, type 48 in the following field and click Find to locate next numbers for the Work Order system:
 - Product Code
2. Choose the record and click Select.



3. On Set Up Next Numbers by System, complete the following field for each number that you need to set up:

- Next Number

Equipment/Plant Maintenance users need to set up only the Work Order Number. J.D. Edwards strongly recommends that you do not use blank as a next number value.

4. Click the following option and then click OK:

- Check Digit Used

Field	Explanation
Next Number	The number that the system will assign next. The system can use next numbers for voucher numbers, invoice numbers, journal entry numbers, employee numbers, address numbers, contract numbers, and sequential W-2s. You must use the next number types already established unless you provide custom programming.
Check Digit Used	When next numbers are used you may add a digit to the end of each next number. If you are using check digits, and the next number is “2”, the computer will add a check digit to the end of the number and assign “27”. This check digit enhances automated next numbers by avoiding assignment of transposed numbers. For example, if “19” has been assigned, the computer will not assign “91”.

Setting Up Record Types

You use record types to organize the detail information that you track for work orders. For example, you can organize information, such as original task description, tools required, safety provisions, and so on.

For each record type that you use you can specify how the information appears. You can also control the display format for these record types. For each record type that you set up you can specify a format that is text only or a format that includes text and three columns. If you use the format for text and three columns, you must specify at least one of the column headings that you want to appear. The text-only format does not include headings. If you specify even one column heading for the record type, the record type changes to the format that includes text and three columns. If you change the format of a record type after you've assigned it to one or more work orders, the system updates the format of that record type for all work orders.

You can review record types, formats, and column headings by choosing Record Types from Work With Work Orders, or Record Type Review from Work Order Details.

Note: You must set up the following record types for Equipment/Plant Maintenance:

- Maintenance Loops
- Associated PMs

Before You Begin

- Define work order record types. See *Understanding User Defined Codes* for more information about defining work order record types.

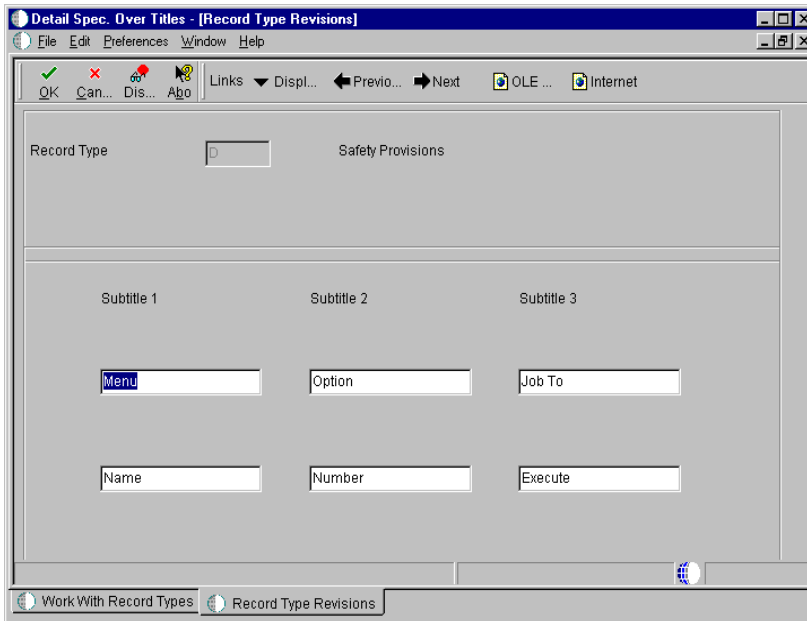
See Also

- *Creating a Maintenance Loop* for more information about maintenance loops
- *Linking Service Types* for more information about associated PMs

► To set up record types

From the Work Order Setup menu (G4841), choose Detail Specifications Over Titles.

1. On Work With Record Types, click Add.



2. On Record Type Revisions, complete the following field:
 - Record Type
3. Complete the following fields to define column headings:
 - Sub-Title 1
 - Sub-Title 2
 - Sub-Title 3

Field	Explanation
Record Type	The detail specification record type. Record types are user defined. You can set them up on the Detail Specification Types form and use them to describe certain types of work order or engineering change order information.
Sub-Title 1	A subtitle, description, remark, name, or address. The text that you type in this field appears as a column heading on the Work Order Detail Entry form for the record type indicated.

System Prerequisites

Required record types You must set up the following record types for Equipment/Plant Maintenance:

- Maintenance Loops
- Associated PMs

The record type that you set up for maintenance loops should match the record type that you set up in equipment constants.

See *Creating a Maintenance Loop* for more information about maintenance loops.

See *Setting up Equipment Constants* for more information about specifying a record type for maintenance loops.

The record type that you set up for associated PMs must be assigned to record type Z. This record type stores all associated service types to be performed on a work order.

See *Linking Service Types* for more information about associated PMs.

Setting Up Work Order Activity Rules

You use work order activity rules to do the following:

- Define the expected sequence of work order statuses in a work order life cycle, as well as alternate statuses that are allowed at a given point in the cycle
- Specify whether the work order is active or inactive at a particular status
- Change the PM status when the work order changes status
- Define whether a work order can be changed at a particular status

You can set up work order activity rules that differ by work order document type and work order type. Document types are user defined codes that you use to specify how a document is processed by the general ledger. For example, you might define separate document types for PM work orders and corrective work

orders. A work order type is a user defined code that you can use to classify work orders, such as maintenance work orders, model work orders, and so on.

► **To set up work order activity rules**

From the Work Order Setup menu, (G4841), choose Work Order Activity Rules.

1. On Work With Work Order Activity Rules, click Add to access Work Order Activity Rules.

WO Status	WO Status Description	Next Status	Allowed Status 1	Allowed Status 2	Allowed Status 3	Allowed Status 4	Allowed Status 5
M	Maintenance Work Request	M*	MA	MR			
M*	MWO Waiting Manager Approval	MA	ME	MG	MI	MR	
MA	MWO Approved	MB	MD	ME	MI	MM	
MB	MWO Material Issued	MG	MH	MJ	MM		
MC	W/O In Planning	ME	MF	MG	MI	MJ	MM
MD	W/O Plant Shutdown	ME	MF	MG	MI	MJ	MM
ME	W/O Waiting for Parts	MF	MG	MH	MJ	MM	
MF	W/O Parts Staged and Ready	MG	MH	MJ			
MG	W/O Ready to Schedule	MH	MJ				
MH	W/O Issued & Released	MJ					
MI	W/O Outside Services	MJ	MM				
MJ	W/O Completed	MK					

2. On Work Order Activity Rules, complete the following fields in the header area of the form to specify a classification of work orders:
 - Order Type
 - WO Type
3. To define the activity rules for a classification of work orders, complete the following fields for as many rows as applicable:
 - WO Status
 - Next Status
 - Allowed Status 1

- Allowed Status 2
- Allowed Status 3
- Allowed Status 4
- Allowed Status 5

Each row represents a specific rule. Before you can use a status code as a next status or other allowed status, you must set up a rule whereby the status code is the work order status for that rule.

Do not delete a status code from the activity rules table if another set of activity rules uses it as a next status or another allowed status.

4. For each rule that you defined above, complete the following optional fields:
 - Subledger Inactive Code
 - Maint. Status
 - Lock Flag
5. To assign a reject status to a rule, choose its record and from the Row menu, choose Reject Status.

Order Type	Order Type Description	WO Type	WO Type Description	Approval Type	Approval Type Description	WO Status
------------	------------------------	---------	---------------------	---------------	---------------------------	-----------

6. On Reject Status, complete the following field and click OK:
 - Reject Status

Field	Explanation
Order Type	<p>A user defined code (00/DT) that identifies the type of document. This code also indicates the origin of the transaction. J.D. Edwards has reserved document type codes for vouchers, invoices, receipts, and time sheets, which create automatic offset entries during the post program. (These entries are not self-balancing when you originally enter them.)</p> <p>The following document types are defined by J.D. Edwards and should not be changed:</p> <ul style="list-style-type: none"> P Accounts Payable documents R Accounts Receivable documents T Payroll documents I Inventory documents O Purchase Order Processing documents J General Accounting/Joint Interest Billing documents S Sales Order Processing documents OS Subcontract OP Purchase Order R2 Contract Billing <p>.....<i>Form-specific information</i>.....</p> <p>Enter the work order document type for which these rules apply.</p>
WO Type	<p>A user defined code (00/TY) that indicates the classification of a work order or engineering change order.</p> <p>You can use work order type as a selection criterion for work order approvals.</p>
WO Status	<p>A user defined code (system 00, type SS) that describes the status of a work order.</p>
Allowed Status 1	<p>This is an optional field that indicates a status that can be assigned as the next step in the order process. Although this is not the preferred or expected next step, this status is an allowed override. The system does not allow you to initiate an order line step or status that is not defined as either the expected next status or an allowed status. Other allowed status codes let you bypass processing steps. In processing options, these codes are often referred to as override next status codes.</p> <p>You must define a status code as a work order status in the Work Order Activity Rules table before you can use it as a next status or another allowed status.</p>

Field	Explanation
Subledger Inactive	<p>A code in WorldSoftware or an option in OneWorld that indicates whether a specific subledger is active or inactive. Any value other than blank indicates that a subledger is inactive. Examples are jobs that are closed, employees that have been terminated, or assets that have been disposed. If a subledger becomes active again, set this field back to blank.</p> <p>If you want to use subledger information in the tables for reports but want to prevent transactions from posting to the master record, enter a value other than blank in this field.</p>
Maint. Status	<p>A user defined code (12/MS) that indicates the maintenance status of a piece of equipment, such as 50 for maintenance due or 60 for waiting for parts.</p> <p>Note: Status code 98 is reserved for canceled maintenance. Status code 99 is reserved for completed maintenance. Status code 01, the default, is reserved for initial maintenance setup.</p>
Lock Flag	<p>A code that determines whether a work order can be changed at a particular status. The lock applies to records in both the Work Order Master table (F4801) and the Work Order Instruction table (F4802). Values are:</p> <ul style="list-style-type: none">Blank Do not lock the work order.1 Lock the work order.2 Lock the work order with a completion date.3 Do not lock the work order with a completion date.
Reject Status	<p>The status that the work order will default to if an approver rejects a work order.</p>

Setting Up Work Order Approval Routes

You can set up a variety of approval routes for all of the individuals who need to receive notification that a work order requires their approval. You use address book numbers of the individuals responsible for the approval of a work order to include them in an approval route. You can also establish specific approval routes based on the following:

- Organizational structure
- Work order amount

► To set up work order approval routes

From the Workflow Management Setup menu (G0241), choose Group Revisions.

1. On Work With Distribution Lists, click Add.

Group	Address Number	Alpha Name	Escalation Hours	Escalation Minutes	Remark
1.00	0		0	0	

2. On Address Parent/Child Revisions, complete the following fields to define the characteristics of the approval route:
 - Address Number - Parent
 - Organization Structure Type
3. For each individual responsible for approval of work orders in this route, complete the following fields:
 - Address Number
 - Alpha Name
4. Complete the following optional fields for each approver and click OK:
 - Name - Remark
 - Begin Eff Date
 - Ending Effective Date - Julian

- Escalation Hours/Minutes

Field	Explanation
Parent Number	<p>The address book number of the parent company. The system uses this number to associate a particular address with a parent company or location. For example:</p> <ul style="list-style-type: none"> • Subsidiaries with parent companies • Branches with a home office • Job sites with a general contractor <p>This address must exist in the Address Book Master table (F0101) for validation purposes. Any value you enter in this field updates the Address Book Organizational/Structure table (F0150) for the blank structure type.</p> <p>The value you enter in the Parent Number field updates the Address Organization Structure Master table (F0150) if the Structure Type field is blank.</p> <p>.....<i>Form-specific information</i>.....</p> <p>The Address Book number of the primary level in a hierarchy, or reporting relationship. A parent in one hierarchy can be a child in another hierarchy. A hierarchy can be organized by business unit, employee, or position. For example, you can create a hierarchy that shows the reporting relationships between employees and supervisors.</p>
Structure Type	<p>A user defined code (01/TS) that identifies a type of organizational structure that has its own hierarchy in the Address Book system (for example, e-mail).</p> <p>When you create a parent/child relationship for the Accounts Receivable system, the structure type must be blank.</p> <p>.....<i>Form-specific information</i>.....</p> <p>Identifies the type of distribution list, such as WFS for workflow, ORG for group, and EML for e-mail.</p>
Address Number	<p>A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, a location, and any other address book members.</p>
Alpha Name	<p>A user defined name or remark.</p>
Remark	<p>A generic field that you use for a remark, description, name, or address.</p>
Begin Eff Date	<p>The date on which the address number appears in the structure. The Beginning Effective Date field prevents the address number from occurring in the structure until the beginning effective date is the same as the current date. If left blank, the address number always occurs in a structure unless there is an ending effective date.</p>

Field	Explanation
End Eff Date	The date on which the address book record will cease to exist in the structure.
Escalation Hours	The amount of time that must elapse before a message is escalated.

Processing Options for Group Revisions (P02150)

Defaults

- 1.) Enter the default Structure Type _____
- 2.) Enter the Version of Organizational Structure Revisions to call. If left blank version ZJDE0001 will be used. _____

Setting Up Work Order Approver Profiles

You must set up profiles for all of your designated work order approvers. The system uses the approver’s address book number to send electronic mail messages associated with work order approvals and to define the work order approval routing.

When an approver enters a password to complete the approval process, the system validates the password against the approver’s user ID number. The system uses the User ID number to verify that the address book number is valid for the approver.

► To set up work order approver profiles

From the System Administration Tools menu (GH9011) choose User Profiles.

1. On Work With User Profiles, to locate a particular user, complete the following field in the Query by Example row and click Find:
 - User ID
2. Choose the record and then click Select.

The screenshot shows a Windows-style dialog box titled "User Profiles - [User Profile Revisions]". It features a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", and "Algo". The main content area is divided into two sections. The top section contains several fields: "User ID" with the value "DS5533041", "System Role" with "OWACTIVERA", "Allow Fast Path (Y/N)" with a checked checkbox, "Address Number" with "5533041", "Menu Identification" with "G", and "Default Icon File" which is empty. The bottom section is titled "Display Preferences" and contains several fields: "Language" (empty), "Date Format" (empty), "Date Separator Character" (empty), "Decimal Format Character" (empty), "Localization Country Code" (empty), and "View Style Type" (empty). To the right of these fields are labels: "Domestic Language", "Use System Value", "System value", "System value", "No Special Localization Logic", and "Detail".

3. On User Profile Revisions, complete the following field:

- Address Number

Processing Options for User Profile (P0092)

A/B Validation

Enter a '1' to enable editing on address
book number against the F0101.

Setting Up Standard Parts Lists and Work Order Instructions

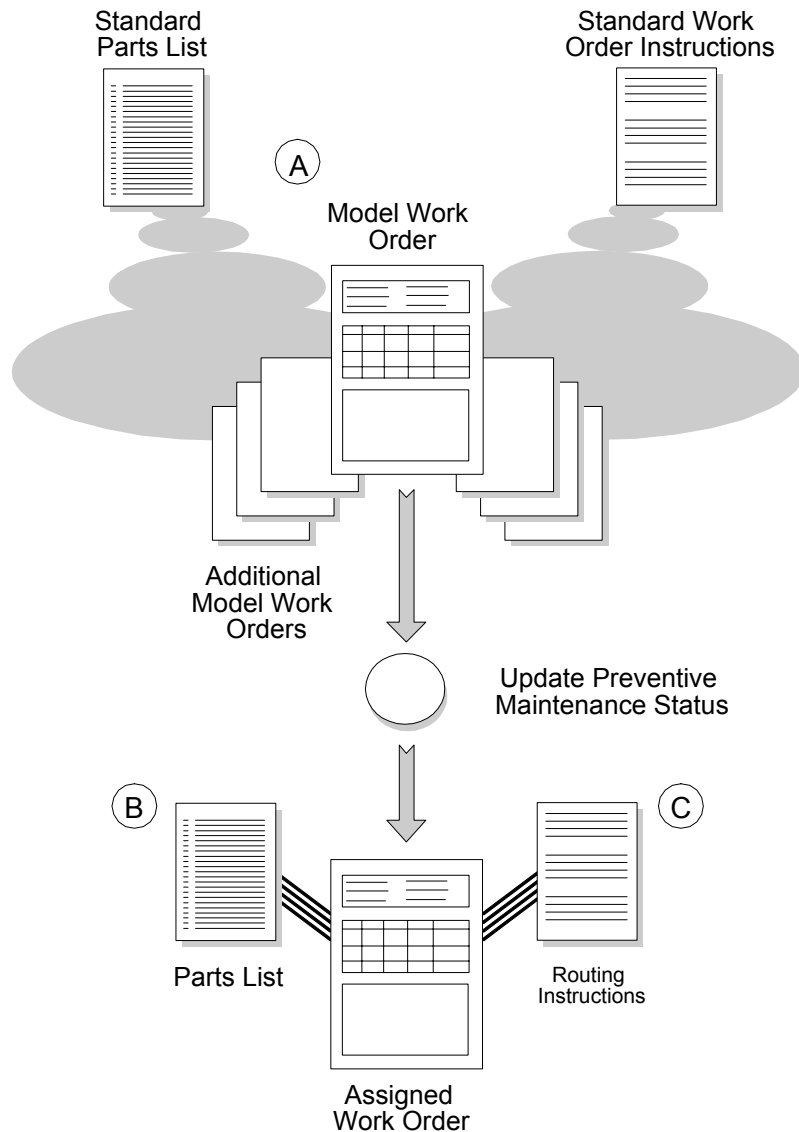
You can set up standard parts lists and standard work order instructions for work orders. You use a standard parts list when the maintenance task for which the work order applies is routine and repetitive and when you have advance knowledge of the parts requirements.

Work order instructions specify the sequence of operations required to complete a work order, as well as the work centers responsible for each operation. You use standard work order instructions when the maintenance task for which the work order applies is routine and repetitive, and when you have advance knowledge of the labor requirements. To use standard work order instructions you must set up work center information and information about the sequence of operations.

You can set up as many standard parts lists and standard work order instructions as you need. In addition, you can use a standard parts list or a version of standard work order instructions on as many work orders as you need. Typically, you assign

standard parts lists and standard work order instructions to model work orders, but you can also use information from standard parts lists and standard work order instructions to create parts lists and routing instructions that you can attach to corrective work orders.

The following graphic shows how the system uses information from a standard parts list and standard work order instructions to generate a parts list and labor routing instructions for a work order that is assigned to a specific maintenance task:



- A** You can use standard parts lists and standard work order instructions for as many model work orders as you need.

- B** Parts information for the assigned work order comes from the model work order. The system copies information from the standard parts list to the parts list that is attached to the assigned work order.

- C** Routing instructions for the assigned work order come from the model work order. The system copies the standard work order instructions to the routing instructions that are attached to the assigned work order.

Setting up standard parts lists and standard work order instructions consists of the following tasks:

- Setting up a standard parts list
- Setting up standard work order instructions

Setting Up a Standard Parts List

You can create standard parts lists that you can attach to work orders. This is especially useful when you have routine maintenance tasks that require identical parts.

For example, for a particular piece of equipment, you overhaul the hydraulic assembly every 250 hours. Because the overhaul procedure requires the same repair kit, you would set up a standard parts list that includes all of the parts necessary to overhaul the hydraulic assembly.

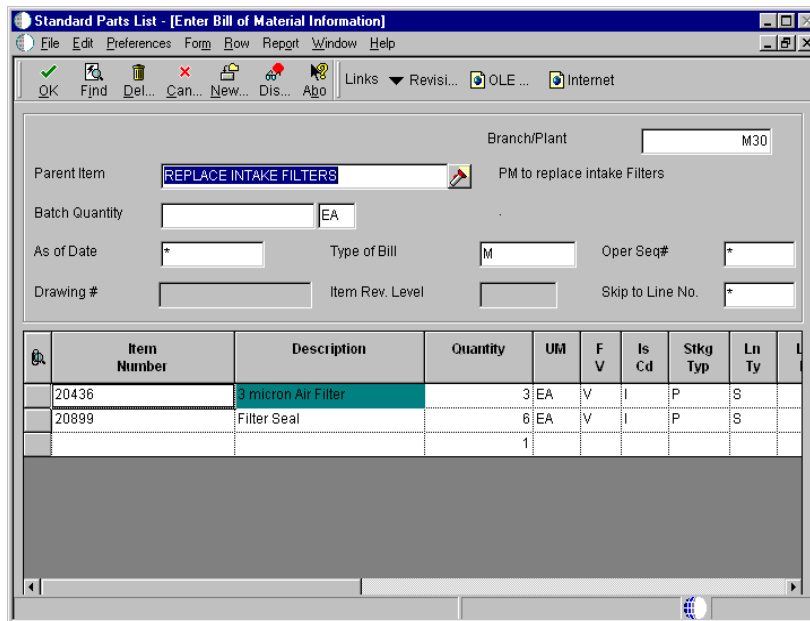
Before You Begin

- Verify that you have purchased and installed the following systems. You must have installed these systems to be able to set up a standard parts list.
 - System 40: Inventory Base and Order Processing
 - System 41: Inventory Management
- Verify that inventory masters have been created for all parent items (part assemblies) and component items you want to include on a standard parts list. See *Entering Item Master Information* in the *Inventory Management Guide* for more information about creating inventory master records.

► To set up a standard parts list

From the Planning Setup menu (G1346), choose Standard Parts List.

1. On Work With Bill of Material, complete the following fields and click Find:
 - Branch
 - Item Number
2. Choose the record and then choose BOM Revision from the Row menu.



3. On Enter Bill of Material Information, complete the following optional fields:
 - Units - Batch Quantity
 - Type of Bill
 - Bill Revision Level
4. For each component part, complete the following fields in the detail portion of the form:
 - Item Number
 - Quantity - Standard Required Quantity
5. Complete any of the following optional fields for each component part and click OK:
 - Unit of Measure

- Fixed or Variable Quantity
- Issue Type Code
- Line Type
- Sequence Number - Operations
- Effective - From Date
- Effective - Thru Date

The following fields have no application within Equipment/Plant Maintenance:

- Feature Planned Percent
- Feature Cost Percent
- From/Thru Grade
- From/Thru Potency

Field	Explanation
Batch Quantity	The quantity of finished units that you expect this bill of material or routing to produce. You can specify varying quantities of components based on the amount of finished goods produced. For example, 1 ounce of solvent is required per unit up to 100 units of finished product. However, if 200 units of finished product is produced, 2 ounces of solvent are required per finished unit. In this example you would set up batch quantities for 100 and 200 units of finished product, specifying the proper amount of solvent per unit.
Type of Bill	<p>A user defined code (40/TB) that designates the type of bill of material. You can define different types of bills of material for different uses. For example, you can differentiate between bills of material for maintenance and manufacturing.</p> <p>The system enters bill type M in the work order header when you create a work order, unless you specify another bill type. The system reads the bill type code on the work order header to know which bill of material to use to create the work order parts list. MRP uses the bill type code to identify the bill of material to use when it attaches MRP messages. Batch bills of material must be type M for shop floor management, product costing, and MRP processing.</p>

Field	Explanation
Item Rev. Level	<p>A value that indicates the revision level of a bill of material. It is usually used in conjunction with an engineering change notice or engineering change order. The revision level of the bill of material should match the revision level of its associated routing, although the system does not check this. This value is defined and maintained by the user.</p>
Quantity	<p>The number of units that the system applies to the transaction.</p> <p>.....<i>Form-specific information</i>.....</p> <p>A number that indicates how many components you use to manufacture the parent item. A quantity of zero is valid. The default value is 1.</p>
UM	<p>A user defined code (00/UM) that identifies the unit of measurement for an amount or quantity. For example, it can represent a barrel, box, cubic meter, liter, hour, and so on.</p>
F V	<p>A code that indicates if the quantity per assembly for an item on the bill of material varies according to the quantity of the parent item produced or is fixed regardless of the parent quantity. This value also determines if the component quantity is a percent of the parent quantity. Valid values are:</p> <ul style="list-style-type: none"> F Fixed Quantity V Variable Quantity (default) % Quantities are expressed as a percentage and must total 100% <p>For fixed-quantity components, the Work Order and Material Requirements Planning systems do not extend the component's quantity per assembly value by the order quantity.</p>
Is Cd	<p>A code that indicates how the system issues each component in the bill of material from stock. In Shop Floor Management, it indicates how the system issues a part to a work order. Valid values are:</p> <ul style="list-style-type: none"> I Manual issue F Floor stock (there is no issue) B Backflush (when the part is reported as complete) P Preflush (when the parts list is generated) U Super backflush (at the pay-point operation) S Sub-contract item (send to supplier) Blank Shippable end item <p>You can issue a component in more than one way within a specific branch/plant by using different codes on the bill of material and the work order parts list. The bill of material code overrides the branch/plant value.</p>

Field	Explanation
Ln Ty	<p>A code that controls how the system processes lines on a transaction. It controls the systems with which the transaction interfaces, such as General Ledger, Job Cost, Accounts Payable, Accounts Receivable, and Inventory Management. It also specifies the conditions under which a line prints on reports and is included in calculations. Codes include the following:</p> <ul style="list-style-type: none">S Stock itemJ Job costN Nonstock itemF FreightT Text informationM Miscellaneous charges and creditsW Work order
Oper Seq#	<p>A number used to indicate an order of succession.</p> <p>In routing instructions, a number that sequences the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, a number that designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing instructions for the item. The Shop Floor Management system uses this number in the backflush/preflush by operation process.</p> <p>In engineering change orders, a number that sequences the assembly steps for the engineering change.</p> <p>For repetitive manufacturing, a number that identifies the sequence in which an item is scheduled to be produced.</p> <p>Skip To fields allow you to enter an operation sequence that you want to begin the display of information.</p> <p>You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.</p>

See Also

- *Entering Production Information* in the *Product Data Management Guide* for the processing options for this program

Setting Up Standard Work Order Instructions

You can create standard work order instructions that establish labor routing steps for work orders. For example, assume that you have created a standard parts list

for routine hydraulic maintenance. The hydraulic maintenance has multiple steps that must be performed in a specific sequence, such as machine lockout, disconnect motor, and so on. In addition, some of the steps must be performed by different work centers (crafts), such as electrical, mechanical, and so on. For this task, you would create standard work order instructions that specify the work centers and sequence of operations necessary to install the parts. You can then attach the instructions to each actual (firm) work order created for hydraulic maintenance.

Before You Begin

- Verify that you have purchased and installed the following systems. You must have installed these systems to be able to set up standard work order instructions:
 - System 40: Inventory Base and Order Processing
 - System 41: Inventory Management
- Verify that inventory masters have been created for all parent numbers specified in Standard Instructions. See *Entering Item Master Information* in the *Inventory Management Guide* for more information about creating inventory master records.
- Verify that work centers have been set up as business units.

See Also

- *Setting Up Business Units* in the *General Accounting Guide*

► To set up standard work order instructions

From the Planning Setup menu (G1346), choose Standard Work Order Instructions.

1. On Work With Routing Operations, complete the following fields and click Add:
 - Branch
 - Item Number
 - Batch Quantity

Work Center	Oper Seq#	Description	Run Labor	Run Machine	Setup Labor	Cons Prod	Que Hou
200-141	1.00	Lockout Electrical	.25	0.00	0.00	Cons	
200-141	2.00	Replace Filters	.50	0.00	0.00		
200-141	3.00	Replace Seals	.50	0.00	0.00		
200-141	4.00	Inspect Motor	.25	0.00	0.00		
200-141	5.00	Unlock	.25	0.00	0.00		
	0.00		0.00	0.00	0.00		

2. On Enter Routing Information, complete the following fields for each routing step:
 - Work Center
 - Sequence Number - Operations
 - Description
 - Run Labor - Standard

3. To enter additional details for a routing step, complete the following fields in the detail area, and then click OK.
 - Run Machine - Standard
 - Queue Hours - Standard
 - Move Hours - Standard
 - Line/Cell Identifier
 - Effective - From Date
 - Effective - Thru Date
 - Crew Size
 - Primary / Last Supplier Number

- Cost Component
- Type Oper
- Standard Desc.
- Craft Code
- Sequence Number - Next Operation
- PO (Y/N)

Field	Explanation
Work Center	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p> <p>.....<i>Form-specific information</i>.....</p> <p>For Product Costing, this is the work center from which costs are retrieved.</p> <p>For Equipment users, this is the craft or resource responsible for completing the maintenance activity.</p> <p>Manufacturing Accounting does not support journal entries by work center.</p>

Field	Explanation
Oper Seq#	<p>A number used to indicate an order of succession.</p> <p>In routing instructions, a number that sequences the fabrication or assembly steps in the manufacture of an item. You can track costs and charge time by operation.</p> <p>In bills of material, a number that designates the routing step in the fabrication or assembly process that requires a specified component part. You define the operation sequence after you create the routing instructions for the item. The Shop Floor Management system uses this number in the backflush/preflush by operation process.</p> <p>In engineering change orders, a number that sequences the assembly steps for the engineering change.</p> <p>For repetitive manufacturing, a number that identifies the sequence in which an item is scheduled to be produced.</p> <p>Skip To fields allow you to enter an operation sequence that you want to begin the display of information.</p> <p>You can use decimals to add steps between existing steps. For example, use 12.5 to add a step between steps 12 and 13.</p>
Description	<p>A description can be:</p> <ul style="list-style-type: none"> • Brief information about an item • A remark • An explanation
Run Labor	<p>The standard hours of labor that you expect to incur in the normal production of this item.</p> <p>The run labor hours in the Routing Master table (F3003) are the total hours that it takes the specified crew size to complete the operation. The hours are multiplied by the crew size during shop floor release and product costing.</p> <p>.....<i>Form-specific information</i>.....</p> <p>For Equipment/Plant:</p> <p>This is the estimated number of hours needed to complete a maintenance activity.</p>
Queue Hours	<p>The total hours that an order is expected to be in queue at work centers and moving between work centers.</p> <p>The system stores this value in the Item Branch table (F4102). You can calculate this value using the Leadtime Rollup program or you can enter it manually. When you run the Leadtime Rollup program, the system overrides manual entries and populates the table with calculated values.</p>

Field	Explanation
Move Hours	<p>The planned hours that are required to move the order from this operation to the next operation in the same work center.</p> <p>If the Routing Master values are blank, the system retrieves the default value from the work order routing. However, the system uses these values only for backscheduling variable leadtime items.</p>
Line/Cell	<p>A number that defines a production line or cell. Detailed work center operations can be defined inside the line or cell.</p>
Crew Size	<p>The number of people who work in the specified work center or routing operation.</p> <p>The system multiplies the Run Labor value in the Routing Master table (F3003) by crew size during costing to generate total labor amounts.</p> <p>If the Prime Load Code is L or B, the system uses the total labor hours for backscheduling. If the Prime Load Code is C or M, the system uses the total machine hours for backscheduling without modification by crew size.</p> <p>.....<i>Form-specific information</i>.....</p> <p>For Shop Floor Management:</p> <p>The Crew Size field on the Work Order Routing form contains the value entered on the Work Center Revision form (P3006). You can override the value by changing this field on the Work Order Routing form. However, the Work Center Revision form will not reflect this change.</p>
Supplier	<p>The address book number of the preferred provider of this item.</p> <p>You can enter the number for the supplier or you can have the system enter it each time that you receive the item from a supplier. You specify whether the system enters the supplier using processing options for Enter Receipts.</p>

Field	Explanation
Cost Type	<p>A code that designates each element of cost for an item. An example of the coding structure is as follows:</p> <ul style="list-style-type: none"> A1 Purchased raw material B1 Direct labor routing rollup B2 Setup labor routing rollup C1 Variable burden routing rollup C2 Fixed burden routing rollup Dx Outside operation routing rollup Xx Extra add-ons, such as electricity and water <p>The optional add-on computations usually operate with the type Xx extra add-ons. This cost structure allows you to use an unlimited number of cost components to calculate alternative cost rollups. The system then associates these cost components with one of six user defined summary cost buckets.</p>
Craft Code	<p>A user defined code (07/G) that defines the jobs within your organization. You can associate pay and benefit information with a job type and apply that information to the employees who are linked to that job type.</p>
PO (Y/N)	<p>Determines if the Work Order Generation program (P31410) creates a purchase order for a subcontracted operation within a routing. Valid values are:</p> <ul style="list-style-type: none"> Y Yes, create a purchase order. N No, do not create a purchase order.

Processing Options for Standard Work Order Instructions (P3003)

Display

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

Line/Cell	_____
Routing Type	_____
Batch Quantity	_____

Defaults

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

Type of Routing	_____
-----------------	-------

Process

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

Mode - Processing	_____
-------------------	-------

- Enter a '1' to update the component

operation scrap percent in the Bill of Material for the components on the operation and the Cumulative Yield Percent on the Routing, when updating the operation yield percent.

Update _____

Interop

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

Transaction Type _____

2. Enter the version of "Process Outbound Routings" (R3003Z10). If left blank, ZJDE0001 will be used.

Outbound Processing Version _____

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

Before Image Processing _____

Versions

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

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

Defining Default Location and Printers

Many of the forms within the Work Order Processing system require that you specify a location, such as a branch or plant, to which you are assigned. You can set up default locations for each person in your organization who uses the Work Order Processing system. A default location is the branch/plant that is assigned to your user ID or terminal ID. If you do not set up a default location for your user ID or terminal ID, you must enter a location manually.

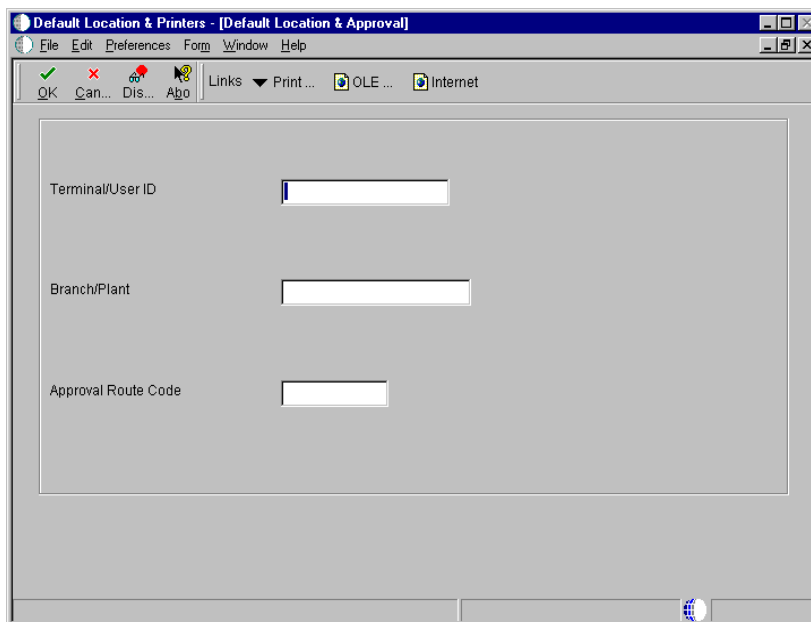
You can also assign a default print queue to each person who uses the Work Order Processing system. When you print a work order, the system uses the default print queue that you set up, unless you specify otherwise. If you do not assign a default print queue, the system uses either the print queue assigned in the particular

version for which the Work Order Print program applies or the print queue assigned to your user profile.

► To define default location and printers

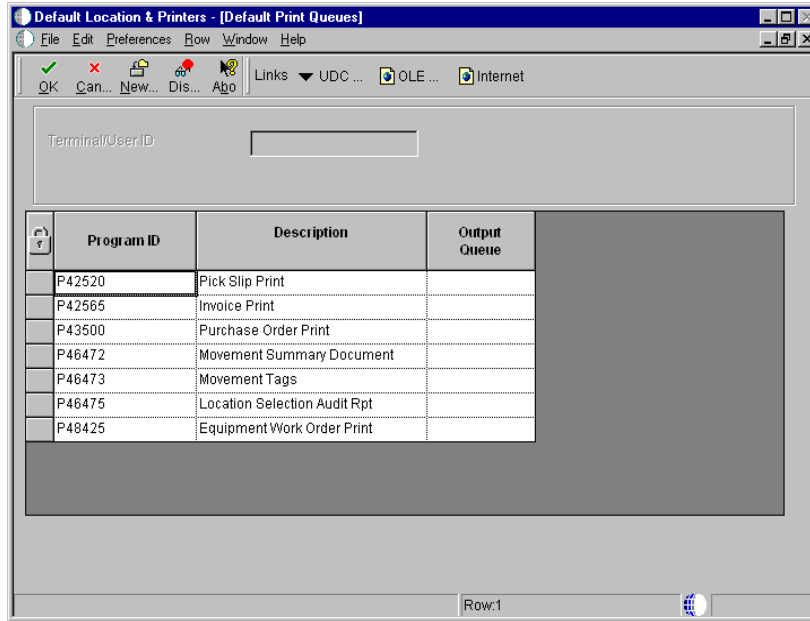
From the Inventory System Setup menu (G4141), choose Default Location and Printers.

1. On Work With Default Location and Printers, click Add to access Default Location and Approval.



The screenshot shows a software dialog box titled "Default Location & Printers - [Default Location & Approval]". The dialog has a standard menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", "Ago", "Links", "Print...", "OLE ...", and "Internet". The main area of the dialog contains three text input fields: "Terminal/User ID", "Branch/Plant", and "Approval Route Code".

2. On Default Location Approval, complete the following fields:
 - Terminal/User ID
 - Branch/Plant
3. From the Form menu, choose Print Queues.



4. On Default Print Queues, complete the following field for each document for which you want to assign a default print queue and click OK:
 - Output Queue
5. On Default Location and Approval, click OK.

Setting Up Supply and Demand Inclusion Rules

To balance your parts inventory with the demand for parts created by maintenance work orders, you must set up supply and demand inclusion rules. You use supply and demand inclusion rules to specify the documents that create a supply for parts, such as purchase requests, and the documents that create a demand for parts, such as PM work orders, corrective work orders, and so on. In addition, you specify the statuses at which the various documents create supplies or demands.

The following programs use supply and demand inclusion rules:

Materials Requirements Planning (MRP)

You can set up and apply different versions of the supply and demand inclusion rules, depending on the type of material plan that you run. For example, you can set up one version of the rules to apply to a long-range material plan and another version to apply to a short-range material plan.

Capacity Requirements Planning You can set up and apply different versions of the supply and demand inclusion rules, depending on the type of capacity plan you run. For example, you can set up one version of the rules to apply to a long-range capacity plan and another version to apply to a short-range capacity plan.

Supply/Demand Inquiry Based on the version of the supply and demand inclusion rules you choose, all of the documents that create a supply or demand for a particular part appear on Supply/Demand Inquiry. You can then access documents and make revisions to balance the supply with the demand.

In Equipment/Plant Maintenance, the following document types create a supply for parts:

- Purchase requests
- Purchase orders
- Blanket purchase orders

In Equipment/Plant Maintenance, the following document types create a demand for parts:

- System-generated maintenance work orders, such as PM work orders
- Corrective maintenance work orders

After you set up supply and demand inclusion rules, you can use the information that the system provides to balance the supply and demand for parts. For example, if demand is greater than supply at a given point, you can expedite purchase orders or postpone work orders.

When you review a version of the supply and demand inclusion rules, the system displays all document types and related statuses that are available. You choose the document types and document statuses that you want to include in the version. Document types for which inclusion rules currently apply appear in a contrasting color. For review purposes, you can specify that the system only display document types for which inclusion rules currently apply.

Before You Begin

- Set processing options to include work order document types WO, WM, and any other work order document types that you have defined. See *Understanding User Defined Codes* for more information about defining work order document types.

► **To set up supply and demand inclusion rules**

From the Planning Setup menu (G1346), choose Supply/Demand Inclusion Rules.

1. On Work With Supply/Demand Inclusion Rules, complete the following field and click Find:
 - Version
2. Choose each record that includes the order type and line status for which you want the inclusion rules to apply and click Select.

When you apply inclusion rules to work order documents, line types do not appear. Line types are not applicable to the Work Order system.

Field	Explanation
Rule Version	<p>A user defined code (40/RV) that identifies an inclusion rule that you want the system to use for this branch/plant. The Manufacturing and Warehouse Management systems use inclusion rules as follows:</p> <ul style="list-style-type: none"> • For Manufacturing: Allows multiple versions of resource rules for running MPS, MRP, or DRP. • For Warehouse Management: Allows multiple versions of inclusion rules for running putaway and picking. The system processes only those order lines that match the inclusion rule for a specified branch/plant. <p>If you leave this field blank, the system does not update the capacity plan when you create a work order or change the status of a work order.</p>

Processing Options for Supply/Demand Inclusion Rules (P34004)

WO Types

1. Enter the WO document types for the Inclusion rules. These can be stacked up one after another for multiple document types. If left blank, "WO" will be used.

Work Order Document Types _____

Setting Up Maintenance Planning

Before you can use maintenance planning features in Equipment/Plant Maintenance, you need to set up information that the system uses to process material plans and labor plans. For example, you must set up information to determine how the system commits inventory to a branch and how the system calculates the availability of parts and labor resources.

Setting up maintenance planning consists of the following tasks:

- Setting up general planning
- Setting up parts planning
- Setting up resource planning

Setting Up General Planning

Before the system can generate material and labor plans and create planning messages, you must define general planning information for each branch or plant in your organization. General planning information determines how the system commits inventory to the branch or plant, which work days to include when you generate a material or capacity plan, how the system processes changes to standard parts lists, and so on.

Setting up general planning consists of the following tasks:

- Setting up planning constants
- Setting up the workday calendar

Setting Up Planning Constants

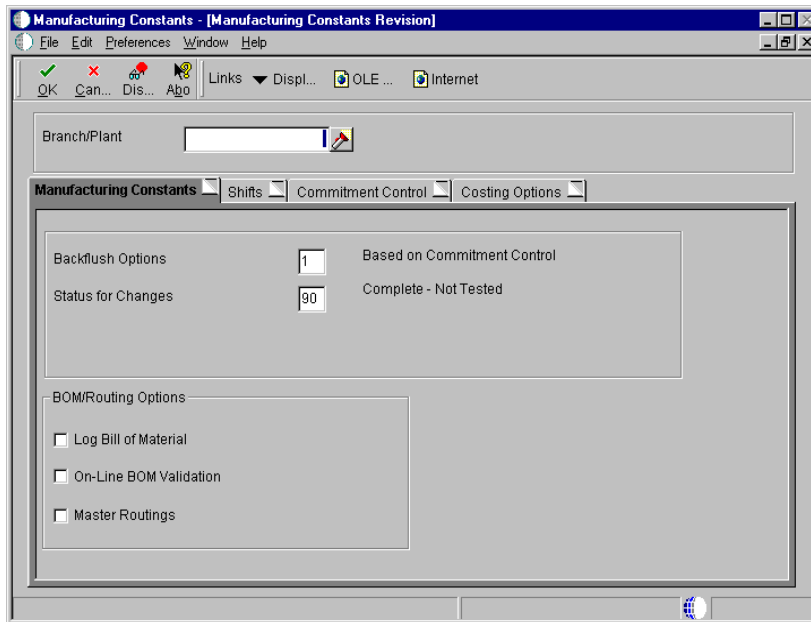
You must define material and resource planning values for each branch or plant. For example, you can specify rules that govern how the system commits and routes inventory. You can also specify that the system log changes you make to standard parts lists if you need to track the changes. You can also define the number of hours per day that each branch or plant operates. The system uses this information to determine the maximum workload for each work center in a branch or plant.

Note: Equipment/Plant Maintenance shares planning constants with other manufacturing systems. If you use manufacturing systems, you should set up separate constants for maintenance branch/plants and manufacturing branch/plants.

► To set up planning constants

From the Planning Setup menu, (G1346), choose Manufacturing Constants.

1. On Work With Manufacturing Constants, click Add to access Manufacturing Constants Revision.



2. On Manufacturing Constants Revision, complete the following field to specify the branch or plant for which the constants apply:
 - Branch
3. Click the following options:
 - Log Bill of Material
 - On-Line BOM Validation (Y/N)
4. To specify the work hours per day, complete the following fields for each maintenance shift on the Shifts tab:

- Hours
 - Shift Code
5. Under the Hard/Soft Commit heading, click one of the following options on the Commitment Control Tab and then click OK:
- Hard/Soft Commit
 - Hard/Soft Commit
 - Hard/Soft Commit

Field	Explanation
Log Bill of Material	<p>A code that determines whether changes to the bill of material are recorded in the Bill of Material Change table (F3011). When you log bill of material changes, the system saves the old bill of material and the new changed bill of material.</p> <p>For World:</p> <p>Valid values are:</p> <ul style="list-style-type: none">Y Yes, log changes.N No, do not log changes.Blank The system assigns a default value of N. <p>For OneWorld:</p> <p>To record changes to the bill of material, click the Log Bill of Material option under the BOM/Routing Options heading. If you do not click Log Bill of Material, the program does not record changes.</p>

Field	Explanation
On-Line BOM Validation	<p>An option that determines whether the system performs an online component or parent validation and low-level code assignment when you revise a bill of material.</p> <p>J.D. Edwards recommends that you validate items online unless your bills of material are extremely large. If you choose not to validate items online, you must validate the items in batch. Run the Print Integrity Analysis program (P30601) after updates to the bill of material and before you run the Frozen Cost Update program (P30835) or perform a DRP/MPS/MRP generation (P3482).</p> <p>For World:</p> <p>Valid values are:</p> <ul style="list-style-type: none">Y Yes, validate items online.N No, do not validate items online. <p>For OneWorld:</p> <p>To specify that the system validates items online, click the On-Line BOM Validation option under the BOM/Routing Options heading. If you do not click the On-Line BOM Validation option, the system does not validate items online.</p>

Setting Up the Workday Calendar

You must set up workday calendars for each maintenance branch or plant. You use the calendar to specify which days are workdays, holidays, and so on. You need to set up a workday calendar for every month for which you want to generate parts and labor plans. The system uses workday calendar information to plan and schedule labor resources, based on the workdays you specify. You should set up calendars six months to a year at a time.

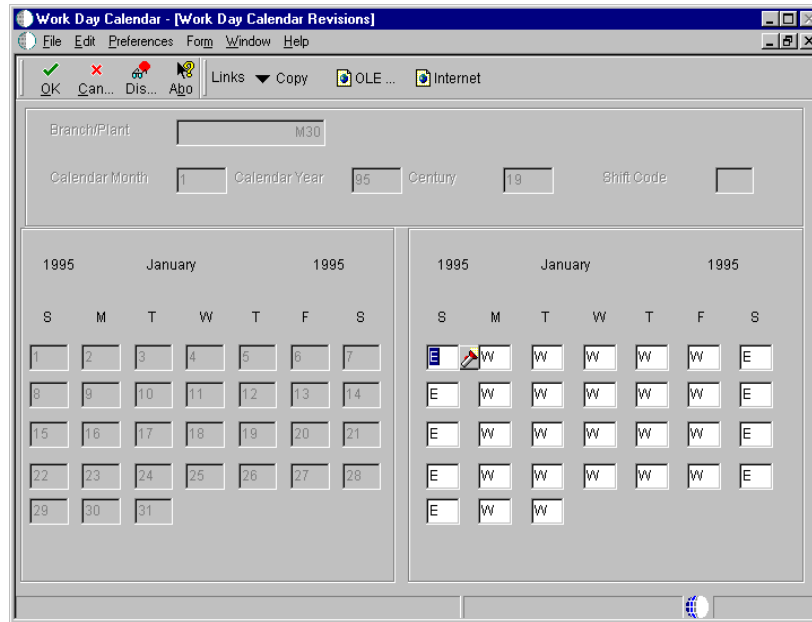
When you initially set up a workday calendar, the system automatically specifies all weekdays as workdays and all Saturdays and Sundays as non-work days. You can accept these values or change the days to suit your business needs.

► To set up the workday calendar

From the Planning Setup menu, (G1346), choose Work Day Calendar.

1. On Work With Work Day Calendar, complete the following fields and click Add to access Work Day Calendar Revisions.
 - Branch

- Year - Calendar Year
- Calendar Month



2. On Work Day Calendar Revisions, enter a valid day type on the entry calendar for each day that you want to set up.
 J.D. Edwards provides several predefined day type codes (00/DT). With the exception of Workday (W), which is hard coded, you can use these codes, revise them, or add new ones.

Technical Considerations

Shift codes Shift codes are not applicable to maintenance planning.

Processing Options for Work Day Calendar (P00071)

Interop

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

Type - Transaction

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

be written.

Before Image Processing

Setting Up Parts Planning

Before you can generate and review a parts plan, you must set up information that the system uses to process the plan. For example, you must set up a table of user defined quantity types that the system uses to calculate and display the supply and demand of parts. You must also specify the action messages that you want to appear when the system detects a conflict between the availability and the demand for a part.

In addition, you can set up different versions of the supply and demand inclusion rules to accommodate different types of parts plans that you want to generate. For example, you can generate a long-range parts plan and a short-range parts plan. You use supply and demand inclusion rules to specify the document types that you want the system to include when it processes each plan.

Setting up parts planning consists of the following tasks:

- Setting up parts planning codes
- Setting up supply and demand inclusion rules for parts plans

Setting Up Parts Planning Codes

Before you can use the parts planning features in Equipment/Plant Maintenance, you must set up the following user defined codes:

- Quantity types
- MRP calculation display
- MRP action messages

The system uses these codes to calculate and display the availability of parts. The system also uses these codes to determine which action messages to display when it detects a conflict between the availability and the demand for a part.

See Also

- *Understanding User Defined Codes* for additional information on user defined codes
- *Working with User Defined Codes* in the *OneWorld Foundation Guide* for additional information on user defined codes

Quantity Types

From the Planning Setup menu (G1346), choose Quantity Types.

Quantity types are user defined codes (34/QT) that represent the availability of parts. J.D. Edwards provides several predefined codes, including the following:

- + Beginning available (unadjusted)
- + Beginning available
- + Purchase orders
- - Lot Expired
- - Firm work orders
- = Ending available (unadjusted)

The system uses codes that have unadjusted values to calculate part availability with the assumption that any outstanding action messages will not be implemented by the responsible planner. The system uses all other codes to calculate the availability of parts with the assumption that the planner will implement planning messages.

Caution: The table for quantity types is shared with other manufacturing systems. Under no circumstances should you delete this table. Values within this table have special meaning to the system, but you can change the description fields. J.D. Edwards recommends that you leave this table unaltered.

MRP Calculation Display

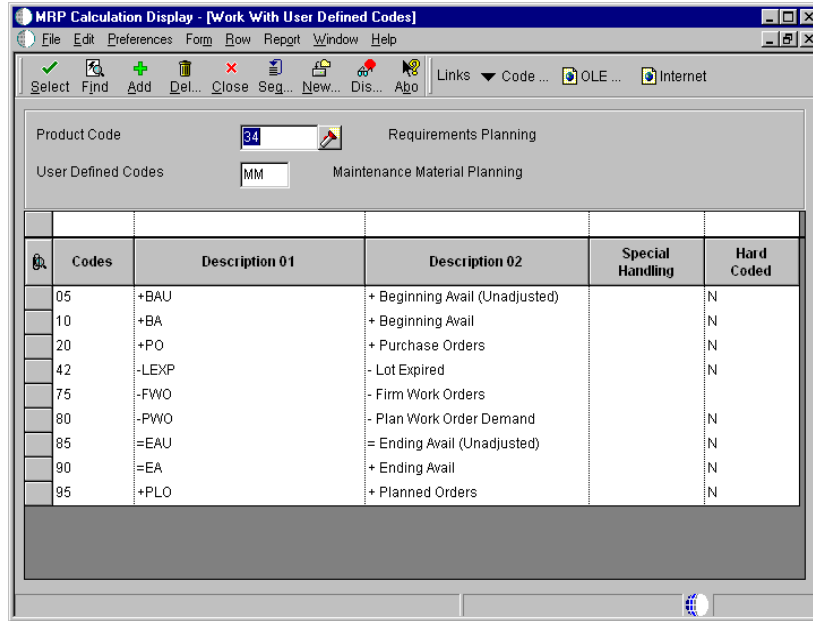
From the Planning Setup menu (G1346), choose MRP Calculation Display

You must set up the MRP Calculation Display table (34/MM) with the quantity type codes that you want the system to consider when it calculates the availability of a part. You can revise the codes in this table to meet your specific calculation or display purposes.

For example, you can set up a table to specify that the system do the following:

- Use the beginning available quantity for a part
- Add quantities from existing purchasing orders
- Subtract quantities from maintenance work orders
- Provide the ending available amount

Example: MRP Calculation Display Table



Processing Options for MRP Calculation Display (P0004A)

Defaults

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

What You Should Know About Processing Options

Specifying a default MRP calculation display table You can use processing options to specify which version of the MRP calculation display table that the system uses. The maintenance material planning version of the MRP calculation display table appears unless you specify otherwise.

MRP Action Messages

From the Planning Setup menu (G1346), choose MPS/MRP Action Messages.

You must define the action messages that you want to appear when the system notifies you of parts planning conflicts. For example, depending on the severity of a parts shortage, you can direct the system to provide messages to place an order for a part, expedite an existing order, increase the quantity of an existing order, and so on.

The system stores MRP action message codes in user defined codes (34/MT). You can change the description of the codes to meet your business needs.

Setting Up Supply and Demand Inclusion Rules for Parts Plans

From the Planning Setup menu (G1346), choose Supply/Demand Inclusion Rules.

You typically use the same version of supply and demand inclusion rules that you set up for work orders. However, you can set up other versions of the supply and demand inclusion rules to accommodate your parts planning needs. You use supply and demand inclusion rules to specify the documents that create a supply for parts, such as purchase requests, and the documents that create a demand for parts, such as work orders. In addition, you specify the statuses at which the various documents create supplies or demands.

When you generate a parts plan, the system considers only the documents you that specify in the inclusion rules when it calculates parts availability. For example, you can set up a version of the supply and demand inclusion rules that includes all purchase orders, regardless of status, but only PM work orders up to and including a status of MC (work order in planning.)

Using this example, the system calculates supply according to parts for which any purchase orders exist. The system calculates demand according to the parts requirements of PM work orders with statuses within the range that you specified. The system does not take into consideration parts requirements for work orders with unspecified status in the inclusion rules.

See Also

- *Setting Up Supply and Demand Inclusion Rules* for additional guidelines for setting up inclusion rules

Setting Up Resource Planning

Before you can generate and review a labor plan, you must set up information that the system uses to process the plan. For example, you must set up the work centers that are responsible for maintenance and specify the number of employees in each maintenance work center. You must also set up additional user defined codes, such as the codes that the system uses to calculate the availability of labor resources.

In addition, you can set up different versions of the supply and demand inclusion rules to accommodate different types of labor plans that you want to generate. For example, you can generate a long-range labor plan and a short-range labor plan.

You use supply and demand inclusion rules to specify the document types that you want the system to include when it processes each plan.

Setting up resource planning consists of the following tasks:

- Setting up resource units
- Setting up resource planning codes
- Setting up supply and demand inclusion rules for labor plans

Setting Up Resource Units

You must set up resource units to enable the system to calculate labor demands and labor costs for maintenance tasks. The system calculates resource units by multiplying the work hours per day by the number of employees in a work center. In Equipment/Plant Maintenance, a work center usually represents the employees who perform maintenance work, although it can also represent a department or a machine. You must set up your work centers before the system can calculate resource units and labor costs.

In addition, you must establish standard labor rates. The system uses standard labor rates to calculate rate information on work order labor routings and on the work order Estimate to Actual Variance program.

Setting up resource units consists of the following tasks:

- Setting up work centers
- Running the Work Center Resource Units Refresh program
- Setting up standard labor rates

Before You Begin

- Set up workday calendars for each branch or plant. See *Setting Up the Workday Calendar*.

Setting Up Work Centers

You must provide the system with the following types of information about each of your maintenance work centers:

- Basic information, such as work center names, crew sizes, job processing time, and so on

- Grouping information, so that you can combine similar work centers for planning and reporting
- Labor rate information

► To set up work centers

From the Planning Setup menu (G1346), choose Work Center Revision.

1. On Work With Work Centers, click Add.

Work Center Revision - [Work Center Master Revisions]

File Edit Preferences Form Window Help

OK Can... Dis... Ab... Links Mfg C... OLE ... Internet

Work Center

Work Center Master Capacity & Shifts Hours & Efficiency

Dispatch Group

Location - Issue

Location Branch

Work Center Type 0 Crew Size

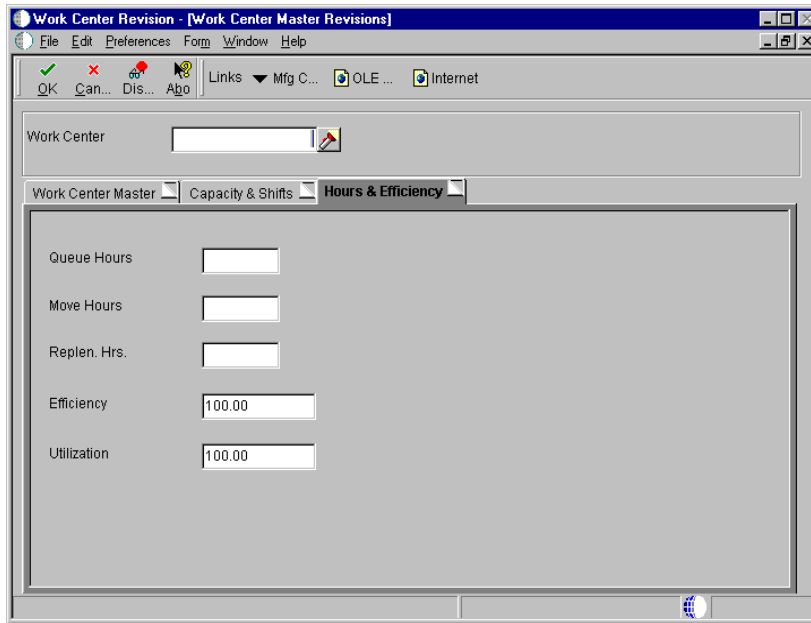
Pay Point 0 Not a backflush work center Number of Machines

Prime Load L Run Labor Hours only Number of Employees

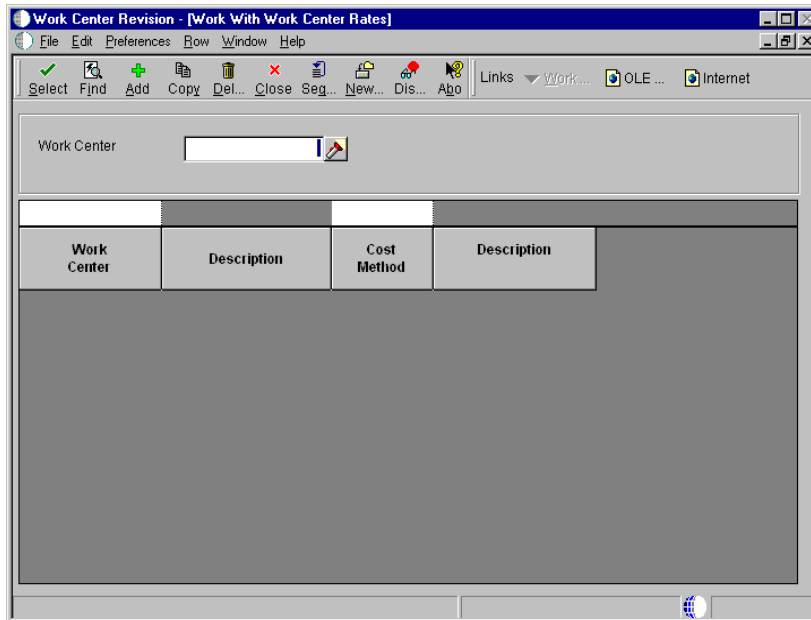
Critical W/C N Not a critical W/C - CRP only Resource Offset

2. On Work Center Master Revisions, complete the following fields:
 - Work Center
 - Dispatch Group
 - Location Branch
 - Number of Employees
3. Complete the following optional fields:
 - Prime Load
 - Critical W/C

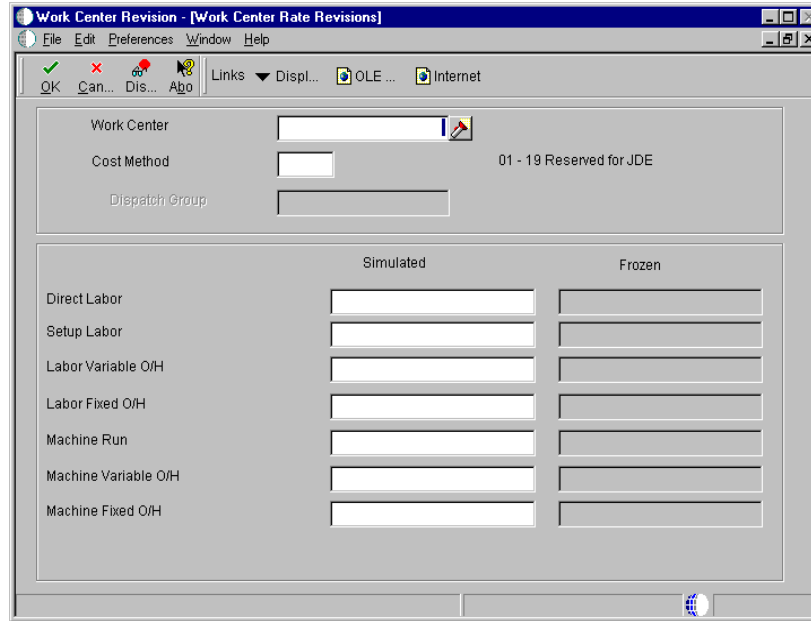
- Click the Hours & Efficiency tab.



- Complete the following optional field:
 - Efficiency
- From the Form menu, choose Rates.



- On Work With Work Center Rates, click Add.



8. On Work Center Rate Revisions, complete the following fields and click OK:
- Business Unit
 - Cost Method
 - Direct Labor - Simulated

Field	Explanation
Work Center	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>Note: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p>
Dispatch Group	<p>A category code used to group work centers within an overall business unit. For example, you can use this code to group similar machines operating out of several work centers that report to one business unit.</p>

Field	Explanation
Location Branch	<p>A code that represents a high-level business unit. Use this code to refer to a branch or plant that might have departments or jobs, which represent lower-level business units, subordinate to it. For example:</p> <ul style="list-style-type: none">• Branch/Plant (MMCU)• Dept A (MCU)• Dept B (MCU)• Job 123 (MCU) <p>Business unit security is based on the higher-level business unit.</p>
Number of Employees	<p>The normal number of employees in this work center. When you run the Work Center Resource Units Refresh program, the system multiplies this number by the Number of Work Hours Per Day from the Manufacturing Constants table (F3009) to generate the total gross labor hours available in the work center each day.</p>
Prime Load	<p>A code that determines if a work center is machine or labor intensive. The system also uses prime load codes in Resource Requirements Planning and Capacity Requirements Planning calculations to develop load profiles.</p> <p>Valid codes are:</p> <ul style="list-style-type: none">L Run labor hours onlyM Machine hours onlyB Run labor plus setup labor hoursC Machine plus setup hoursO Other (will not generate resource units)
Critical W/C	<p>A code that indicates whether the work center is critical or not critical when the system calculates capacity. Valid values are:</p> <ul style="list-style-type: none">N Not a critical work center.1 A critical work center in calculating RRP only.2 A critical work center in calculating RCCP and CRP.3 A critical work center in calculating RRP, RCCP, and CRP. The system also displays Type 3 work centers when you select Type 1 or Type 2 in this field.4 Not a capacity work center. The system does not include this work center in capacity planning. <p>Note: The data selection is a system feature that processes certain groups of information with the CRP and RCCP programs.</p>

Field	Explanation
Efficiency	<p>A user defined value that indicates how efficiently a work center operates. This value usually refers to staff efficiency. When you enter a value in this field, and the Modify Cost by Work Center Efficiency field in the Job Shop Manufacturing Constants table (F3009) is set to Y, the system creates a new cost component (B4) from the cost calculated from the direct labor cost (B1).</p> <p>For example, if the constant is set to Y, the value of this field is 80%, and the direct labor cost is 10, the system creates a B4 cost component for 2 in the Item Cost Component Add-Ons table (F30026).</p> <p>The Refresh Resource Units program also uses this value as a default when calculating rated capacity.</p> <p>Enter percents as whole numbers. For example, enter 80% as 80.00.</p> <p>Note: The system expects that the routing times entered for each operator are the actual times it takes to complete an operation. Efficiency does not affect total cost. Efficiency does reassign some of the costs into different cost components. Efficiency does not change the duration or back scheduling of a work order.</p>
Cost Method	<p>A user defined code (40/CM) that identifies a cost method. Use cost methods to indicate the method for the system to use. Cost methods 01 through 19 are reserved for J.D. Edwards use.</p>
Direct Labor	<p>A rate, in cost per person per hour, that the system uses with the Run Labor hours of the associated routing to calculate the standard run labor cost.</p>

Processing Options for Work Center Revisions (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)

Running the Work Center Resource Units Refresh Program

From the Planning Setup menu (G1346), choose Work Center Resource Units Generation.

After you set up work centers and whenever you revise work center information, you must run the Work Center Resource Units Refresh program to calculate available resource units. You specify a time period and a branch or plant for which you want the system to calculate resource units. The system uses the Prime Load Code field on Work Center Master Revisions to determine how to calculate the resource units that a work center is capable of generating over a particular period of time. To calculate resource units for maintenance work centers, you typically use a prime load code of L for labor hours.

When you use a prime load code of L, the system calculates resource units using the following information:

- Number of employees from Resource Revisions
- Work hours per day from General Planning Constants

When you run the Resource Units Refresh program, Work With Batch Versions appears, containing DEMO versions that you can run, or copy and modify to suit your needs. After you select a version, Version Prompting appears, from which you can specify data selection and sequencing.

See Also

- *Working With Batch Versions* in the *OneWorld Foundation Guide* for more information about running, copying, and changing batch versions
- *Generating Resource Units Automatically* in the *Manufacturing and Distribution Guide* for the processing options for this program

Setting Up Standard Labor Rates

From the Planning Setup menu (G1346), choose Item Cost Component-Frozen Update.

When you set up work centers, you enter a value for simulated labor rates on Work Center Rates Revisions. You must run the Item Cost Component-Frozen Update program to create the frozen direct labor rate. The system uses the frozen direct labor rate to calculate the estimated labor routing costs to work orders.

See Also

- *Working With Batch Versions* in the *OneWorld Foundation Guide* for more information about running, copying, and changing batch versions
- *Updating Frozen Costs* in the *Product Costing and Manufacturing Accounting Guide* for more information about the Item Cost Component-Frozen Update program and the processing options

Setting Up Resource Planning Codes

Before you can use the labor planning features in Equipment/Plant Maintenance, you must set up the following user defined codes:

- CRP display
- Message types

The system uses these codes to calculate and display labor availability when you generate a labor plan. The system also uses these codes to determine which action messages appear when it detects a conflict between the availability of labor resources and demand for labor resources.

See Also

- *Understanding User Defined Codes* for additional information on user defined codes

CRP Display

From the Planning Setup menu (G1346), choose CRP Display.

You must set up the CRP Display table (33/MM) with the codes that you want to appear on Capacity Load. The system provides several predefined codes, such as:

- 10 - Released Load
- 40 - Load Versus Capacity
- 80 - Available Capacity
- 90 - Accumulated Available Capacity

You can use these codes or modify them to meet your specific calculation or display purposes.

Message Types

From the Planning Setup menu (G1346), choose Message Types.

You use message type codes (33/MM) to define the action messages that you want to appear when the system notifies you of load and capacity conflicts. For example, you can define messages that indicate an over-capacity condition, an under-capacity condition, and so on.

Setting Up Supply and Demand Inclusion Rules for Labor Plans

From the Planning Setup menu (G1346), choose Supply/Demand Inclusion Rules.

You typically use the same version of supply and demand inclusion rules that you set up for work orders. However, you can set up other versions of the supply and demand inclusion rules to accommodate your labor planning needs. You use supply and demand inclusion rules to specify what type of work orders and range of work order statuses that you want the system to include when it calculates available labor resources.

For example, you can set up a version of the supply and demand inclusion rules that includes only PM work orders up to and including a status of MC (work order in planning).

See Also

- *Setting Up Supply and Demand Inclusion Rules* for additional guidelines for setting up inclusion rules

Advanced & Technical

Equipment/Plant Maintenance Global Updates

Use global update programs to make system-wide changes that affect a variety of information within Equipment/Plant Maintenance. For example, you can do the following:

- Update asset locations from a planned location to a current location
- Recalculate work order costs to reflect actual time spent on each maintenance task
- Create preventive maintenance schedules for groups of similar equipment
- Make additions or changes to groups of related PM schedules, such as the following:
 - Schedule dates
 - Service intervals
 - Priorities
- Update equipment tables when you revise numbers in your chart of accounts
- Update the Account Ledger table (F0911) when you change the symbol that you use to identify equipment numbers

Equipment/Plant Maintenance global updates consist of the following tasks:

- Updating equipment information
- Updating work order information
- Updating PM schedule information
- Updating accounts and ledgers

Updating Equipment Information

You can update certain equipment information globally to reduce the amount of processing time it takes to maintain current equipment information in your system and throughout your organization.

Updating equipment information consists of the following tasks:

- Updating the message log
- Updating planned equipment locations

Updating the Message Log

From the Advanced Operations menu (G1331), choose Update Message Log.

Run the Update Message Log program to keep tickler dates and units current in the message log. For example, if you set up a reminder message to appear at 3,000 miles for a piece of equipment, you use this update to ensure that the message appears when the equipment reaches the 3,000-mile mark.

The Update Message Log program compares tickler dates with the system date and tickler units (for example, miles or hours) to the current unit reading that you record for the corresponding piece of equipment. The program updates all the units that have reached or exceeded the tickler amounts that you post in the AAI automatic accounting instruction. When the update is complete, the corresponding equipment number on Equipment Search is highlighted to indicate that message exists for the equipment.

Note: You should run this program only if you use the Tickler Miles/Hours field in the message log.

When you select Update Message Log, the system submits the job directly to batch. You should update the message log frequently to keep message tickler units current. J.D. Edwards recommends running Update Message Log as part of your unattended operations.

Updating Planned Equipment Locations

From the Advanced Operations menu (G1331), choose Update Location Code.

You can update the location of equipment from a planned location to a current location. Run the Update Location Code program to change planned equipment locations to current locations when the system reaches the As of date that you specify in the processing options.

For example, if you plan to distribute a selection of equipment to a different plant as of a certain date, and you enter the information into the system as a planned location, you can run this program to automatically change the location information from a planned location status to a current location status. The system updates all planned locations that match the selection criteria that you specify.

When you run Update Location Code, the system updates the following tables:

- Location Tracking (F1204)
- Asset Master (F1201)

When you select Update Location Code, a versions list appears. The versions list contains DEMO versions that you can run, or copy and modify to suit your needs. When you run a version, Processing Options Revisions appear before the system submits the job for processing.

Caution: Ensure that the data selections that you make specify only the equipment for which you want to update location information. If you are uncertain whether a piece of equipment should be included in the update, you can review its current and planned locations on Work With Locations.

See Also

- *Revising Location Information*
- *Working With Batch Versions* in the *OneWorld Foundation Guide* for more information about running, copying, and changing a batch version

Processing Options for Update Location Code (R12810)

Process

Enter the 'As of' date to update the
planned status in the Location
Tracking table (F1204).

1. As of Date _____

Updating Work Order Information

You can update certain work order information globally to reduce the amount of processing time needed to maintain current information throughout your organization.

Updating work order information consists of the following tasks:

- Updating work order actual amounts
- Updating work order status based on purchase order receipt
- Updating the standard parts list
- Updating the phase or equipment number in the G/L

Updating Work Order Actual Amounts

From the Advanced Operations menu (G1331), choose Update W/O Actual Amounts.

Run the Update Work Order Actual Amounts program to replace the actual hours in the Work Order Routing table (F3112) with the total hours for each operation sequence from the Employee Transaction History table (F0618). The program also reads the Account Ledger table for material and subcontract amounts. The program then updates the following information in the Work Order Master table (F4801):

- Actual labor costs
- Actual material costs
- Actual hours
- Actual amount
- Actual other costs
- Actual duration (downtime hours)

Updating Work Order Status Based on Purchase Order Receipt

From the Advanced Operations menu (G1331), choose Update WO Status Based on PO Receipt.

You can update the status of work orders based on whether parts ordered from associated purchase orders have been received. This action is especially useful when scheduling work orders based on the arrival of ordered parts. You can specify the status that the system updates work orders based on both partial and full receipt of the items on the associated purchase order. You can also specify the recipient of an e-mail message informing of the change in work order status.

Processing Options for Update WO Status Based on PO Receipt (R48810)

PO Receipt Sta

Enter the purchase order status above which indicates that the purchase order has been received.

WO Status

Enter the status to change the work order to when all parts have been received

Enter the status to change the work order to when some parts have been received

E-Mail Address

Define which work order address will receive an E-mail message about the change in work order status

- 1 = Originator (ANO)
- 2 = Assigned To (ANP)
- 3 = Supervisor (ANPA)
- 4 = Manager (ANSA)
- 5 = Customer (AN8)

Updating the Standard Parts List

From the Advanced Operations menu (G1331), choose Standard Parts List Update.

When you change a work order parts list that is based on a standard parts list, you can update the Bill of Materials Master table (F3002) to ensure that all future work orders using the same standard parts list will contain the revised information.

When you add a part to a work order parts list, the Standard Parts List Update program adds the part to the standard parts list. When you change the quantity of a

part on the work order parts list, the program updates the quantity on the work order parts list. The system compares the transaction quantity on the work order part to the quantity indicated on the standard parts lists when it updates the standard parts list.

You can also use the Standard Parts List Update program to update the equipment parts list. The update program works the same way as for the standard parts list, except that it updates the standard parts list from the Asset Master table (F1201) as well as the the standard parts list from the Work Order Master table (F4801).

Processing Options for Standard Parts List Update (R13802)

Update

1. Enter a '1' to run in final mode and update the standard parts list. Leave blank to run in preliminary mode and print report only. _____
2. Enter a '1' to use Original Quantity when Transaction Quantity is zero. Leave blank to use zero quantity on update. _____
3. Enter a '1' to also update Standard Parts List of the piece of Equipment on the Work Order. _____

Updating the Phase or Equipment Number in the G/L

From the Advanced Operations menu (G1331), choose Update Phase/Equipment Number in the G/L.

If you post work order transactions to the general ledger and then change the equipment number of the phase code on the work order, you should run this program to ensure that the Account Ledger table (F0911) reflects the most current work order information. You can use this program to reflect changes to the phase code or equipment number for multiple work orders. You can also use this program to enter a value in the phase field on many general ledger transactions.

When you choose Update Phase/Equipment Number in the G/L, the system submits the job directly to batch processing.

Before You Begin

- Back up the Work Order Master table (F4801).

- Verify that no one accesses the Work Order Master table while you run this procedure.

Updating PM Schedule Information

You can update PM schedule information to make global changes to PM services types and create PM schedules for multiple pieces of similar equipment.

Updating PM schedule information consists of the following tasks:

- Updating PM schedules
- Creating PM schedules for multiple pieces of equipment

Updating PM Schedules

You can globally add, change, or delete PM schedules. You specify the service type that you want to change and enter information about the equipment for which you want the changes to apply.

You can also make global revisions to a group of PM service types. You narrow the list of equipment for which you want the revisions to apply by using any combination of the first ten equipment category codes. For example, for any service type, you can do the following:

- Change the service interval
- Revise the schedule date
- Revise the maintenance priority
- Revise the procedure number
- Assign a different model work order number
- Revise the value in the Occurrences field
- Revise the frequency indicator
- Revise the multiple work order code

You can also create PM schedules for multiple pieces of equipment that you place in service with similar maintenance requirements.

The Global PM Schedule Update program immediately updates the Maintenance Schedule table (F1207), depending on the information that you change. Consider the following guidelines when you update PM schedule information:

- If you enter a schedule date, the system removes all other meter service intervals.
- If you enter a meter service interval, the system removes the schedule date.
- If you enter a schedule date and a frequency indicator, the system removes any existing service days.
- If you enter a schedule date and service days, the system removes the existing frequency indicator.

► To update PM schedule information

From the Advanced Operations menu (G1331), choose Global PM Schedule Update.

1. On Work With Global PM Schedule Update, complete any of the category code fields in the header area to locate the equipment that you want to update.
2. To specify the service type that you want to update, complete the following field and click Find:

- Service Type

Before completing an update, you can review all of the equipment that would be updated by entering a service type and leaving the category code fields blank.

You can review all of the service types that apply to a particular class of equipment by completing the category code fields and leaving the Service Type field blank.

3. To revise the service type, choose Revision from the Form menu.

Global PM Schedule Update - [Global PM Schedule]

File Edit Preferences Window Help

OK Can... Dis... Abo Links Displ... OLE ... Internet

Service Type: 200-001 Replace Intake Filter

Service Intervals

Service Days	30	Maintenance Priority	M
Service Miles		Procedure	
Service Fuel		Model W. O. Number	450001
Service Hours	100.00	Multiple W.O. Code	
Schedule Date		Frequency Indicator	
		Occurrences	

4. On Global PM Schedule, to change the service type, complete any of the following fields and click OK:

- Service Days
- Service Miles
- Service Fuel
- Service Hours
- Schedule Date
- Maintenance Priority
- Procedure
- Model W. O. Number
- Multiple W.O. Code
- Frequency Indicator
- Occurrences

A message appears that prompts you to confirm the update.

Creating PM Schedules for Multiple Pieces of Equipment

You can create PM schedules for multiple pieces of equipment. This is particularly useful when you set up your system initially or when you add multiple pieces of identical equipment to your operation. You create PM schedules for multiple pieces of equipment by assigning a service type to equipment that matches specific selection criteria on Work With Global PM Schedule. You use the first ten equipment category codes to select the equipment for which the PM schedule applies.

Caution: When you create PM schedules for multiple pieces of equipment, the system updates the PM schedules for all equipment that matches the equipment category codes that you specify. If you are uncertain whether the process will affect equipment for which you have previously created PM schedules and you do not want the new PM information to apply, you should not use Work With Global PM Schedule to create the PM schedules. Instead, create individual PM schedules using Equipment PM Schedule.

► **To create PM schedules for multiple pieces of equipment**

From the Advanced Operations menu (G1331), choose Global PM Schedule Update.

1. On Work With Global PM Schedule Update, complete the following field:
 - Service Type
2. Complete any combination of the following fields to specify the class of equipment for which you want the service type to apply, and then click Add:
 - CLS
 - EQM
 - MFG
 - YR
 - USE
 - EQ1
 - EQ2
 - EQ3

- CC9
 - GRP
3. On Global PM Schedule, complete any of the following fields and click OK:
- Service Days
 - Service Miles
 - Service Fuel
 - Service Hours
 - Schedule Date
 - Maintenance Priority
 - Procedure
 - Model W. O. Number
 - Multiple W.O. Code
 - Frequency Indicator
 - Occurrences

A message appears that prompts you to confirm the update.

See Also

- *Creating a PM Schedule* for more information about service intervals

Updating Accounts and Ledgers

You need to update the accounts and ledgers in your system if you change your chart of accounts, frequently add new pieces of equipment, and so on, for your organization.

Updating accounts and ledgers consists of the following tasks:

- Updating company and account numbers
- Reposting asset account balances
- Updating the equipment number in the Account Ledger

Updating Company and Account Numbers

From the Advanced Operations menu (G1231), choose Update Company Number, BU/Obj/Sub - 1202.

You must update company numbers and account numbers in the Asset Account Balances table (F1202) when the company numbers and account numbers in the Asset Account Balances table do not match those in the Account Master table (F0901). Company and account numbers in the Asset Account Balances table might not match those in the Account Master table if you change an existing account number or company for an account within the fixed asset (FX) range.

Run the Update Company Number, Business Unit/Object/Subsidiary program any time that you change an existing account in your chart of accounts. For example, run this program when you want to:

- Change the object or subsidiary of an existing account
- Assign existing accounts to a different business unit
- Assign an existing business unit to a different company

Note: You do not have to run this program when you add an account number. You run this program only when you make changes to existing account numbers.

The Update Company Number, Business Unit/Object/Subsidiary program updates information from the Account Master table based on the system-assigned,

short account ID number. The program does not update accounts in the Asset Master table (F1201).

When you update company and account numbers, the system submits the job directly to batch.

Before You Begin

- ❑ Verify that no one will access the general accounting or fixed asset tables while you are working on them. The program is unable to update accounts that are locked by other system applications. Any account that a user accesses elsewhere in the system will not be updated.

Caution: The Repost Ledger program clears all summarized account balances to zero. Do not use this program if your system includes asset account balance records without general ledger transactions, as in the case of summarized depreciation computations or beginning balances created without an audit trail.

Reposting Asset Account Balances

From the Advanced Operations menu (G1231) choose Fixed Asset Repost.

You can repost damaged account balances in the Asset Balances table (F1202) to restore system integrity. You should run the repost only if you have no other way to restore account information. For example, run the repost if account balance information is damaged as a result of hardware failure.

The Fixed Asset Repost program reposts only the transactions that include all of the following:

- A valid period number.
- A code that indicates a post to both the general ledger and equipment.
- A valid equipment number that exists in the Asset Master table (F1201).
- A transaction ledger type set up in Depreciation Default Coding (P12002) if one does not already exist in the Asset Balances table.
- A transaction account number in the Account Master table (F0901). The account number must be within the FX range of accounts in the automatic accounting instructions.
- Period postings for individual equipment. The transaction must not be a balance forward record, and cannot be summarized by period and account.

Caution: The Fixed Asset Repost program clears all summarized account balances to zero. Do not use this program if your system includes asset balance records without general ledger transactions, as in the case of summarized depreciation computations or beginning balances created without an audit trail.

Before You Begin

- Verify that the following procedures are complete:
 - All transactions are posted first to the general ledger and then to equipment
 - All depreciation and transfer transactions are posted first to equipment and then to the general ledger
- Verify that no one will access the general accounting or fixed asset tables while you are working on them. The program is unable to update accounts that are locked by other system applications. Any accounts that a user accesses elsewhere in the system will not be updated.

Processing Options for Fixed Asset Repost (R12910)

PRINT

1. Enter a '1' to print differences and to update the Fixed Asset Balance File. Leave blank (default) to only print the differences between the Transaction Ledger file (F0911) and the Fixed Asset Balance file (F1202) .

Preliminary or Final Processing _____

2. Identify how to print asset number.
 1 = Item Number (Default)
 2 = Unit Number
 3 = Serial Number

Asset Number _____

Updating the Equipment Number in the Account Ledger

From the Advanced Operations menu (G1231), choose Refresh Asset Number in F0911.

If you change the symbol you use to identify the asset number for equipment, you must run the Correct Asset Number in F0911 program. Run this update to ensure that all posted account ledger transactions contain the current asset number format.

The asset number and the symbol used to identify it are stored in the Account Ledger table (F0911).

When you run Correct Asset Number in F0911, the system submits the job directly to batch.

Before You Begin

- Verify that no one will access the general accounting or fixed asset tables while you are working on them. The program is unable to update accounts that are locked by other system applications. Any accounts that a user accesses elsewhere in the system will not be updated.

Data Purge and Archival

Data Purge and Archival

You can increase your system's processing speed and create more storage space for current data by deleting selected information from your system that is old or inaccurate. When you use the purge programs in Equipment/Plant Maintenance, you can purge entire tables or specific data within tables. You can also archive the information that you purge.

Purging and archiving data consists of the following task:

- Purging work orders

Purging Work Orders

From the Shop Floor Management Advanced menu (G3131), choose Purge Orders.

You can purge work orders from your system to free space and make your system operate more efficiently.

When you run the Purge Orders program, you use data selection to specify which work orders to purge from the Work Order Master table (F4801). In addition, the system purges related information from the following tables for the work orders that you select:

- Work Order Instructions (F4802)
- Work Order Parts List (F3111)
- Work Order Routing Instructions (F3112)
- Work Order Time Transactions (F31122) that are not used by Equipment/Plant Maintenance

You can use processing options to save purged work order information in a special purge library.

When you choose Purge Orders, a versions list appears. The versions list includes DEMO versions that you can run, or copy and modify to suit your needs. When you run a version, Processing Options Revisions appears before the system submits the job for processing.

Processing Options for Work Order Purge (R4801P)

Process

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

Save Flag _____

Equipment/Plant Maintenance Reports

Equipment/Plant Maintenance Reports

Equipment/Plant Maintenance provides a variety of reports to help you review and manage information about your equipment and its maintenance.

You can print cost reports to review financial information about your equipment. Cost reports can provide the following information:

- Equipment account balances, such as acquisition costs, revenue amounts, expense amounts, and so on
- Variances between revenue and expenses for a piece of equipment
- All equipment transactions

You can print work order reports to review information about maintenance work orders. Work order reports can provide the following information:

- Work order status
- Detailed or summarized work order costs
- Variances between projected and actual work order costs
- All work orders associated with a particular piece of equipment
- Work order parts information by equipment number

You can print maintenance planning reports to review information about your planning processes. Maintenance planning reports provide information about projected parts requirements and projected labor resource requirements.

You can print PM reports to review PM information, such as the following:

- Status of service types for a piece of equipment
- Maintenance messages
- The frequency of occurrence for selected service types

Printing Equipment/Plant Maintenance reports consists of the following tasks:

- Printing equipment reports
- Printing cost reports
- Printing work order reports

Equipment-Plant Maintenance

- Printing maintenance planning reports
- Printing PM reports

Printing Equipment Reports

Print an equipment report to review and manage information such as supplemental data, specification data, location history, and so on.

Printing equipment reports consists of the following tasks:

- Printing the Supplemental Data by Asset report
- Printing the Supplemental Data by Type report
- Printing Location Tracking information

Printing the Supplemental Data by Asset Report

From the Equipment Information (G1311) menu, choose Supplemental Data. From the Supplemental Data (G1318) menu, choose Print Supplemental Data by Asset report.

You can print the Supplemental Data by Item report to review a list of additional information by supplemental data type that you assigned to individual pieces of equipment. For example, you can print a report that shows all supplemental data types assigned to a particular motor grader. This report draws its information from the following tables:

- Fixed Assets Supplemental Data Codes Types (F12092)
- Fixed Assets Supplemental Data Text (F12093)
- Item Master (F1201)
- General Message Detail (F090192)
- Item Master (F1201)
- General Message Detail (F00192)

See Also

- *R12400, Print Supplemental Data by Asset* in the *Reports Guide* for a report sample

Printing the Supplemental Data by Type Report

From the Equipment information menu (G1311), choose Supplemental Data. From Supplemental Data menu (G1318), choose Print Supplemental Data by Type.

You can print the Supplemental Data by Type report to review a list of additional equipment information based on a particular supplemental data type. For example, you set up a supplemental data type for vibration readings. You can print a report that displays vibration readings for all pieces of equipment for which you have assigned the supplemental data types for vibration readings. This report draws its information from the following tables:

- Fixed Assets Supplemental Data Codes Types (F12092)
- Fixed Assets Supplemental Data Text (F12903)
- Item Master (F1201)
- General Message Detail (F00192)

See Also

- *R12440, Print Supplemental Data by Type* in the *Reports Guide* for a report sample

Printing Location Tracking Information

From the Equipment Location Tracking menu (G1314), choose Print Location Information.

The Print Location Information report allows you to review equipment movement and relocations. Depending on the version that you run, the report shows information by asset number or by location.

The Print Location Information report is a printed version of the information that appears on Location Transfer. The system prints the current, historical, and planned (future) locations for each piece of equipment. You can also use this report to print location tracking text.

The system draws information for this report from the following tables:

- Location Tracking (F1204)
- Location History (F1210)

See Also

- R12460, *Print Location Information* in the *Reports Guide* for a report sample

Processing Options for Print Location Information (R12460)

Print

1. Enter a '1' to print the Location Tracking Text. Leave blank (default) to print no associated text. _____
2. Choose which asset number to print '1' = Asset number (default), '2' = Unit number, '3' = Serial number. _____
3. Enter a '1' to sequence by Location. If left blank a default sequence of Asset Number will be used. _____

Printing Cost Reports

Print cost reports to review and analyze equipment costs and transactions, such as equipment account balances and variances between costs and revenues.

Printing cost reports consists of the following tasks:

- Printing the Equipment Cost Analysis report
- Printing the Equipment Variance report
- Printing the Transaction Ledger report

Printing the Equipment Cost Analysis Report

From the Cost Inquiries and Reports menu (G1312), choose Equipment Cost Analysis.

You can print the Equipment Cost Analysis report to review account balances for specific pieces of equipment. The report shows acquisition costs, depreciation amounts, revenue and expense amounts, and so on, for the equipment that you specify. You can analyze these amounts in month-to-date, year-to-date, or inception-to-date increments.

You can use processing options to show the equipment usage amounts in units such as miles or hours. You can review the total units a piece of equipment has accumulated, as well as the per unit cost. The system derives per unit costs by dividing account balances by total accumulated units.

J.D. Edwards provides four demo versions of this report from which to choose as follows:

Cost Analysis Detail	Shows account balances for each business unit and object account.
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- Cost Analysis by Subsidiary** Shows interim total amounts only, such as the following:
- Net book value
 - Revenue earned
 - Ownership costs
 - Operating costs
 - Maintenance costs
 - Usage amounts
- Cost Analysis by Object** Shows the summarization of identical object accounts that belong to different business units.
- Cost Analysis by AT AAI** Shows the summarization of costs by accounts that you specify in the AT AAI range.

The system draws information for this report from the Asset Account Balances table (F1202).

You can use processing options to determine the ledger type that you want to review. You can also omit items with zero account balances. Using data selections, you can print this report for selected companies, business units, category codes, and so on.

See Also

- *R12424, Equipment Cost Analysis* in the *Reports Guide* for a report sample

Processing Options for Equipment Cost Analysis Report (R12424)

Defaults

1. Enter the through period or through fiscal date. Leave blank to use current period.

Period/Date _____
Fiscal Year _____

2. Enter a single ledger type. Leave blank (default) for "AA" ledger.

Ledger Type _____

Process

3. Identify how to print the report with a "D" (default) for Detailed Report,

"O" for Summarization by Object, "R" for Summarization by Subsidiary or "S" for Summarization by AT AAI.

Detail or Summary (Future) _____

4. Enter a "1" to suppress the Unit Cost columns from printing on the report. Leave blank (default) to print Unit Cost.

Unit Cost Suppression _____

5. If printing Unit Cost, identify what Automatic Accounting Instruction to use for Units in the Unit Cost columns. Choose "Y" for AT00, "A" for FMA or "B" for FMB.

Unit Cost AAI's _____

Print

6. Enter a "1" to omit printing of assets with zero cost. Leave blank (default) to print all assets.

Zero Cost Print _____

7. Identify how to print the Asset Number. "1" (default) is Asset Number, "2" is Unit Number or "3" is Serial Number.

Asset Number Print _____

Printing the Equipment Variance Report

From the Cost Inquiries and Reports menu (G1312), choose Equipment Variance Report.

Print the Equipment Variance report to review the total revenues and expenses generated by a piece of equipment, as well as the variance between revenue and expenses.

You can view usage hours and other unit costs for each piece of equipment that you specify. A grand total of revenue, expense, and usage amounts for all pieces of equipment prints at the end of the report.

You can use processing options to define the range of accounts that you want the system to use for calculating amounts. You must define an account range for the Standard Amount column, which represents revenue totals, and for the Actual Amount column, which represents expense totals. You must also specify the accounts from which unit amounts are drawn for the Actual Hours column.

The Estimated Rate, Actual Rate, and Rate Variance columns represent unit costs. The system calculates these unit costs by dividing revenue and expense amounts by actual hours.

Use processing options to specify a date range and indicate whether you want the report to print inception-to-date amounts. If you indicate inception-to-date amounts, the system adds prior year balances to the amounts that are within the date range you specify.

You can print two versions of the Equipment Variance report, as follows:

Variance by equipment Prints information about the pieces of equipment that you specify.

Variance by job Prints amounts for equipment that you have assigned to a particular location.

The system draws information for this report from the following tables:

- Asset Account Balances (F1202)
- Account Ledger (F0911)

See Also

- *R13400, Equipment Variance Report* in the *Reports Guide* for a report sample

Processing Options for Equipment Variance Report (R13400)

Date Selection

Enter the date range over which the report will cover:

1. From Period: _____
2. From Fiscal Year _____
3. Thru Period: _____
4. Thru Fiscal Year _____

Account Range

Enter object account ranges to be included under the following column headings on the report:

"Standard Amount" column -

- 1. Beginning Object Account: _____
- 2. Ending Object Account: _____
- “Actual Amount” Column -
- 3. Beginning Object Account: _____
- 4. Ending Object Account: _____
- “Actual Hour” column -
- 5. Beginning Object Account: _____
- 6. Ending Object Account: _____
- Print
- 1. Enter a '1' to print inception-to-date amounts. Leave blank (default) to print current period amounts. _____
- 2. Identify how to print asset number. _____
 '1' = Asset Number '2' = Unit Number
 '3' = Serial Number

Printing the Transaction Ledger Report

From the Cost Inquiries and Reports menu (G1312), choose Transaction Ledger.

You can print the Transaction Ledger report to review all the transactions for a piece of equipment. The report prints the transactions by company and in the order that they occurred. You can view the equipment number, the affected account, a brief explanation, the G/L date, a currency and unit amount, and so on, for each transaction. The report shows currency and unit totals for each company.

The system draws information for this report from the Account Ledger table (F0911), which stores journal entry audit trails. Unless you specify otherwise, the report includes all equipment transactions that have accumulated in the Account Ledger since the ledger was last summarized.

You can run two versions of this report, as follows:

- Posted** Prints equipment transactions that are posted to equipment and the general ledger.
- Unposted** Prints equipment transactions that are not posted to equipment. The transactions are not necessarily posted to the general ledger.

See Also

- R12420, *Transaction Ledger* in the *Reports Guide* for a report sample

Printing Work Order Reports

Equipment/Plant Maintenance provides you with a variety of reports to help you review and manage information about work orders. Work order reports can provide the following:

- Standard work order information, such as work order status and work order costs
- Work order information for specific pieces of equipment, such as work orders associated with a particular equipment malfunction and total work orders completed for a piece of equipment
- Budget information, such as a comparison of estimated and actual work order costs
- Parts information, such as parts requirements and parts availability for outstanding work orders

Printing work order reports consists of the following tasks:

- Printing standard work order reports
- Printing the Equipment History report
- Printing the Budget to Actual report
- Printing the Work Order Completion report
- Printing the Labor Utilization report
- Printing the Parts Forecast report
- Printing the Equipment Parts List report

You can print standard work order reports to track the progress of work orders by status for a particular date. You can also review the costs associated with selected work orders. In addition, you can print detailed reports about supplemental data for your work orders.

Printing standard work order reports consists of the following tasks:

- Printing the Work Order Summary report
- Printing the Work Order Status report

- Printing the Work Order Cost Summary report
- Printing the Work Order Cost Detail report

Printing the Work Order Summary Report

From the Equipment Work Orders menu (G1316), choose Print Work Order Summary.

You can print the Work Order Summary report to review a list of summarized work order costs. The report includes estimated and actual hours, and amounts of the work orders that you specify, as well as the variance between estimates and actuals. This information is especially useful to quickly analyze and report on work order costs. The report also includes the following information about each work order:

- Work order start date
- Planned completion date
- Priority
- Status of the work order at the time that you run the report

The system draws information for this report from the Work Order Master table (F4801).

See Also

- *R48445, Print Work Order Summary* in the *Reports Guide* for a report sample

Printing the Work Order Status Report

From the Equipment Work Orders menu (G1316), choose Print Work Order Status Summary.

Print the Work Order Status report to review the detailed information that you associate with work orders. You can use the report to track and compare the progress of selected work orders. The report includes:

- The number of hours planned for each work order
- The number of actual hours charged as of the date that you specify on the report
- The difference between hours planned and hours charged to date

The system draws information for this report from the following tables:

- Work Order Master (F4801)
- Account Ledger (F0911)

See Also

- *R48496, Print Work Order Status Summary* in the *Reports Guide* for a report sample

Processing Options for Work Order Status (R48496)

Print

1. Choose how to print the Equipment Number: ' ' = No Equipment Number
'1' = Asset Number '2' = Unit Number
'3' = Serial Number

Printing the Work Order Cost Summary Report

From the Equipment Work Orders menu (G1316), choose Print WO Cost Summary.

Print the Work Order Cost Summary report to review cost information about work orders. The report includes:

- The estimated hours and costs for each work order
- The actual hours and costs for each work order
- The difference between estimated and actual hours and costs for each work order

The system draws information for this report from the following tables:

- Work Order Master (F4801)
- Account Ledger (F0911)

See Also

- *R48497, Print Work Order Cost Summary* in the *Reports Guide* for a report sample

Processing Options for Work Order Cost Summary (R48497)

Process

1. Enter the date range for the report.
Leave blank (default) to include all costs, regardless of their G/L dates.

- a. From Date: _____
- b. Thru Date: _____

Printing the Work Order Cost Detail Report

From the Equipment Work Orders menu (G1316), choose Print WO Cost Detail.

Print the Work Order Cost Detail report to review detailed information on the costs you charge to work orders. You use a processing option to specify the date range for the report. The report includes:

- Actual hours and amounts charged to each work order
- The G/L date for each transaction
- An explanation of each transaction
- Total hours and amounts by phase code

The system draws information for this report from the following tables:

- Work Order Master (F4801)
- Account Ledger (F0911)

See Also

- *R48498, Print Work Order Cost Detail* in the *Reports Guide* for a report sample

Processing Options for Work Order Cost Detail (R48498)

Process

Enter the From Date. Leave blank (default) to include all costs with G/L dates up to the Thru Date below.

1. From Date _____

Enter the Thru Date. Leave blank (default) to include all costs with G/L dates from the From Date forward.

2. Thru Date _____

Printing the Equipment History Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Equipment History report to review the following information for equipment and equipment components:

- Work orders associated with each piece of equipment
- Problems and possible causes
- Actions that were taken to solve the problems

The report includes completed work orders. You can use processing options to specify a date range to control which work orders that you want to include in the report. You can also specify the work order category codes that you are using to define the problem. In addition, you can specify that the report print the actions that were taken to resolve the problem.

The system draws information for this report from the following tables:

- Work Order Master (F4801)
- Asset Master (F1201)

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13420 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

Processing Options for Equipment History Report (R13420)

Print1

Identify how to print the Equipment Number. '1' = Asset Number (Default)
'2' = Unit Number '3' = Serial Number

1. Print Equipment Number

Print2

Define which Work Order Category Code to use for the following (01-10).

1. Failure Code _____

2. Action Code _____

Process

Enter the Work Order Completion Date range.

1. Completed Date - From: _____

2. Completed Date - To: _____

Printing the Budget to Actual Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Budget to Actual report to review work order information for specific pieces of equipment. The report is based on information from the Asset Master table (F1201). The system totals amounts by equipment number. For each work order, the report includes:

- Estimated hours and amount
- Actual hours and amount
- Variance between estimated and actual hours, and amounts

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13418 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- *R13418, Budget to Actual* in the *Reports Guide* for a report sample

Processing Options for Budget to Actual Report (R13418)

Process1

Enter the Work Order Date from which to start and end the work order selection.

- 1. Work Order Date - Start
2. Work Order Date - End

Process2

Identify how to print the Equipment Number. '1' = Asset Number '2' = Unit Number '3' = Serial Number

- 1. Print Equipment Number

Process 3

FUTURE FUTURE Enter a '1' to run the Update WO Amount (R13800) as you print the report. Leave blank to not run the update program.

- 1. Update WO Amount

Printing the Work Order Completion Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Work Order Completion report to review a list of work orders by individual pieces of equipment. The report includes the following information:

- Number of work orders created for each piece of equipment
• Number of work orders completed for each piece of equipment
• Number of work orders pending with parts requirements
• Percent of complete work orders
• Percent of pending work orders

The system draws information for this report from the following tables:

- Work Order Master (F4801)
• Asset Master (F1201)

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13430 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- *R13430, Work Order Completion* in the *Reports Guide* for a report sample

Printing the Labor Utilization Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Labor Utilization report to review a list of work orders created for a piece of equipment and the hours associated with each labor routing step, such as Electrical, Mechanical, and so on. The report also shows the total hours associated with each work order.

The system draws information for this report from the following tables:

- Shop Floor Control Routing Instructions (F3112)
- Work Order Master (F4801)
- Asset Master (F1201)

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13440 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- R13440, *Labor Utilization* in the *Reports Guide* for a report sample

Processing Options for Labor Utilization Report (R13440)

Print Select

Identify how to print asset
number: _____
'1' - Asset Number
'2' - Unit Number
'3' - Serial Number

Printing the Parts Forecast Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Parts Forecast report to review a list of parts and work orders by branch. The report includes the following information:

- Equipment number on the work order
- Planned completion date
- Parts requirements
- Parts availability

The system draws information for this report from the following tables:

- Work Order Master (F4801)
- Asset Master (F1201)

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13450 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- *R13450, Parts Forecast* in the *Reports Guide* for a report sample

Processing Options for Parts Forecast Report (R13450)

Component

Identify which Component
Item Number you wish to use: _____
'1' - Short Item Number
'2' - 2nd Item Number
(default)
'3' - 3rd Item Number

Asset Number

Identify which Item Number is to
be used: _____
'1' - Item Number
(default)
'2' - Unit Number
'3' - Serial Number

Branch

Identify which Branch (if any) is
to be used. Default is all
branches. _____

Printing the Equipment Parts List Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Equipment Parts List report to review parts information associated with individual pieces of equipment. The report lists both the location and availability of parts.

The system draws information for this report from the following tables:

- Item Master (F4101)
- Bill of Material Master (F3002)
- Asset Master (F1201)

Technical Considerations

Report Access

You can only access this report by using the following procedure:

Type R13410 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- R13410, Equipment Parts List in the Reports Guide for a report sample

Processing Options for Equipment Parts List Report (R13410)

Process

- 1. Identify how to print Equipment Number. '1' = Asset Number (Default) '2' = Unit Number '3' = Serial Number

Print Equipment Number

- 2. Identify how to print Inventory Parts. '1' = Item Number (Default) '2' = Second Item Number '3' = Third Item Number

Print Inventory Parts

Printing Maintenance Planning Reports

You can print maintenance planning reports to review and manage information about future parts and labor resource requirements.

Printing maintenance planning reports consists of the following tasks:

- Printing the PM Projections report
- Printing the MRP Schedule and Message Detail report
- Printing labor planning reports

Printing the PM Projections Report

From the Maintenance Planning menu (G1322), choose Print PM Projections.

Print the PM Projections report to review information about forecasted PMs. The PM forecast includes four periods. You use processing options to specify whether the periods on the report represent weeks, months, or quarters. The report lists all service types for each piece of equipment, the service intervals associated with the service types, and the estimated hours to complete any service types that come due for the periods represented by the report.

The system draws information for this report from the PM Projections table (F13411).

See Also

- *R13412, Print PM Projections* in the *Reports Guide* for a report sample

Processing Options for Print PM Projections (R13412)

Process

1. Enter the Beginning Date of the first period. _____
2. Enter a "W" for Weekly Period a "M" for Monthly Period a "Q" for Quarterly Period _____

3. Enter the Forecast Type _____
 4. Enter a Work Center to be used in _____
Selecting which PMs to project. Only those PMs with a model work order that uses that work center will be selected.
- Print
1. Enter one of the following to determine how to print the Equipment Number. _____
"1" = Equipment Number (Default)
"2" = Unit Number "3" = Serial Number
 2. Enter a "1" to Print the Parts List. _____
Leave blank to not print the Parts List.

Printing the MRP Schedule and Message Detail Report

From the Material Planning menu (G1323), choose Print Schedule and Messages.

Print the Material Requirements Planning (MRP) Schedule and Message Detail report to review a projection of inventory availability for individual maintenance items. You can also print any outstanding planning messages.

The most current material plan generation supplies the information for the MRP Schedule and Message Detail report. The report is a printed version of the information that you can access online using Item Availability by Time and Item Detail Messages.

You use processing options to select the items that print on the report and to determine whether to print the time series, planning messages, or both. You also define the row types that print for each time series. Row types determine the quantity type information, such as Beginning Available and Ending Available. In addition, you define the columns that print for each time series. Columns determine the time periods that you want to review. The report also provides detailed information for each item, such as quantity on hand, buyer numbers, and planner numbers.

The system draws information for this report from the following tables:

- MPS/MRP/DRP Summary (F3413)
- MPS/MRP/DRP Message (F3411)
- Forecast Consumption (F3405)

See Also

- R3450, *Print Schedule and Messages* in the *Reports Guide* for a report sample

Processing Options for MRP Schedule and Message Detail Report (R3450)

Process

1. Enter the report Start Date (default is today's date).

Report Start Date. _____

2. Enter the number of time periods to be displayed (max. of 54 periods).

Number of time periods. _____

3. Enter the number of past due weeks (0,1, or 2 weeks are allowed and 0 is the default).

Number of past due weeks. _____

4. Enter the User Defined Code for the list row descriptions.

User Defined Code. _____

Print 1

1. Enter a '1' to print MPS Time Series Section.

MPS Time Series _____

2. Enter a '1' to print MPS Messages Section.

MPS Messages _____

3. Enter a '1' to suppress the blank lines when printing the Time Series.

Suppress blank lines. _____

Print 2

4. Enter a '1' to summarize the supply lines into one line and the demand lines into one line.

Summarize supply and demand lines. _____

5. Enter the Unit of Measure in which you want the quantities printed ('1' = Primary, '2' = Production, or '3' = Component).

Report Unit of Measure. _____

What You Should Know About Processing Options

Start dates	The start date must be within the planning horizon that you defined when you ran the Parts Plan Generation for this report. You can indicate a start date for the report that is different from the original plan generation. However, you should ensure that past due time periods for the report are set to zero.
Past due amounts	The number of time periods (columns) that you specify to print on the report includes the number of weeks that you specify for past due amounts.

Printing Labor Planning Reports

Print Labor Planning reports to review and manage detailed information about future labor resource requirements.

Printing labor planning reports consists of the following tasks:

- Printing the Load and Detail Messages report
- Printing the Period Summary report

Printing the Load and Detail Messages Report

From the Labor Planning menu (G1324), choose Print Load and Detail Messages.

Print the Load and Detail Messages report to review time series information for a work center, outstanding action messages for a work center, or both. You can print the information for all work centers or for selected work centers.

Use processing options to control the following information on the report:

- Time period
- Unit of measure for load information
- Type of planning
- Capacity requirements, capacity messages, or both
- User defined code for row descriptions

You can run three versions of the Load and Detail Messages report. However, the Equipment/Plant Management system uses the Capacity Requirements Planning version.

The system draws information for this report from the following tables:

- Capacity Load (F3313)
- Capacity Message (F3311)
- Work Center Master (F30006)

Technical Considerations

Load types

A load type describes the type of labor demand placed on a work center. The system calculates the five load types as follows:

- Rated Profile - the total resource units from the Work Center Revisions form.
- Loaded Profile - the load that is forecast from the planned and released work orders.
- Percent Resource Used - the Loaded Profile divided by the Rated Profile.
- Resource Available - the Loaded Profile subtracted from the Rated Profile.
- Cumulative Resource Available - a running total of the resource available. If a work center runs over capacity, this number could be negative. If the work center runs under capacity, the cumulative resources could increase each period.

See Also

- *R3350, Print Load and Detail Messages* in the *Reports Guide* for a report sample

Processing Options for Print Load and Detail Messages (R3350)

Defaults

1. Enter the Capacity Mode: _____
'1' = Resource Requirements
'2' = Rough Cut Capacity
'3' = Capacity Requirements
2. Enter the Unit of Measure. _____

3. Enter the Start Date for the report. _____
4. Enter a '1' to print Capacity Requirements. _____
5. Enter a '1' to print Capacity Messages. _____
6. Enter the number of periods for the report (1 - 54). The default and maximum value is 54. _____
7. Enter the User Defined Code to use for the row descriptions. _____

What You Should Know About Processing Options

Units of measure

If you enter a unit of measure in the processing options, it must be the same unit of measure in the Account Master table for the work center.

Printing the Period Summary Report

From the Labor Planning menu (G1324), choose Print Period Summary.

Print the Period Summary report to review information for Capacity Requirements Planning (CRP).

The report includes all items scheduled at the work centers during the time period you specify. In addition, it lists the number of resource units required to complete each work order and the percent above or below the total load on the work center.

You can specify the type of planning by selecting the appropriate report version. Equipment/Plant Maintenance uses the CRP version.

The system draws information for this report from the following tables:

- Capacity Load (F3313)
- Capacity Pegging (F3312)
- Work Center Master (F30006)

See Also

- *R3352, Print Period Summary* in the *Reports Guide* for a report sample

Processing Options for Print Period Summary (R3352)

Defaults

1. Enter the Capacity Mode: _____
 '1' = Resource Requirements
 '2' = Rough Cut Capacity
 '3' = Capacity Requirements
2. Enter the Starting Period date. If _____
 blank, the default is today's date.
3. Enter the Ending Period date. If _____
 blank, all data after the starting
 date will be reported.
4. Enter up to 5 Units of Measure for
 the report.

Unit of Measure 1	_____
Unit of Measure 2	_____
Unit of Measure 3	_____
Unit of Measure 4	_____
Unit of Measure 5	_____

What You Should Know About Processing Options

Period from and to dates The system uses the Period From and the Period To dates that you enter as follows:

- If you enter dates in both fields, the system prints the summary within that period.
- If you enter a date in the Period To field only, the system prints the summary beginning with the current period. If you do not select a Period From date, the system prints the past due orders before the current date.
- If you enter a date in the Period From field only, the system prints all items from that date onward.
- If more than one order for an item has been scheduled at the work center for the same period, the system prints the item number once for each order in the report.

Printing PM Reports

You can print PM reports to review and manage information about preventive maintenance schedules and service types within your maintenance organization.

Printing PM reports consists of the following tasks:

- Printing the Maintenance Schedule
- Printing the Equipment Message Log
- Printing the Frequency of Occurrences report

Printing the Maintenance Schedule

From the Equipment/Plant Maintenance menu (G1315), choose Print Maintenance Schedule.

Print the Maintenance Schedule report to review the status of preventive maintenance for equipment.

The Maintenance Schedule report shows the service types that you assign for each piece of equipment on the preventive maintenance schedule. Depending on the maintenance status of each service type, the system determines whether it is scheduled, in process, or complete.

You can run three versions of the report, as follows:

- | | |
|--------------------------------------|---|
| Completed maintenance records | Prints service types that have a maintenance status of 98 (canceled) or 99. The completion date prints, as well as the total miles, fuel, hours, or other user defined statistical units for the equipment. The address book number of the employee completing the service also prints. |
|--------------------------------------|---|

- Scheduled maintenance records** Prints service types that have a maintenance status of less than 98. If you schedule the service for a specific date, the date prints. If you schedule the service at intervals, the number of days prints. If you schedule the service, for example, according to miles, fuel, hours, or other user defined statistical units, the appropriate numbers print.
- Mechanic's worksheet** Prints service types that have a user defined maintenance status, for example, between 50 and 70. If you schedule service according to miles, fuel, hours, or other user defined statistical units, the current readings for the item will print. The % Due column on the report shows how close the service is to being due or whether it is overdue. The address number of the employee assigned to the task also prints.

The system draws information for this report from the following tables:

- Maintenance Schedule (F1207)
- Asset Master (F1201)

See Also

- *R12407, Print Maintenance Schedule* in the *Reports Guide* for a report sample

Processing Options for Print Maintenance Schedule (R12407)

Print

1. Choose which report format to print: _____
'1' = Completed Maintenance (usually, statuses of '99'). '2' = Scheduled Maintenance (usually, statuses less than '99'). '3' = Mechanic's Worksheet (usually, status range of '50' to '70'). NOTE: Data Selection determines which statuses are actually included on the report.
2. Enter a '1' to print the procedure number's standard text. Leave blank (default) to print no standard text. _____
3. Choose which asset number to print: _____
'1' = Asset number (default). '2' = Unit number. '3' = Serial number.
4. Enter a '1' to print the assets by Location, page breaking by Location. NOTE: If selecting this option, Location should be high in the data sequence list (for example Company, _____

Location, Asset Number; or Location, Asset Number; and so forth).

Printing the Equipment Message Log

From the Equipment/Plant Maintenance menu (G1315), choose Print Equipment Message Log.

You can print the Equipment Message Log to review equipment messages based on message type. Message types are user defined (12/EM) and might include the following:

- Problem messages
- Planned maintenance messages
- Actual maintenance messages

You can print four versions of this report, as follows:

- Actual Maintenance
- Reported Problems
- Planned Maintenance
- Reported Problems versus Maintenance

The Maintenance Log report prints messages in the following sequence:

- Equipment number
- Date
- Time

The report includes cleared messages only if you use data selections to specify that you want those messages to appear. The report also includes messages with a tickler date (the date that the messages go into effect).

The system draws information for this report from the following tables:

- Equipment Messages (F1205)
- Asset Master (F1201)

See Also

- *R12450, Print Equipment Message Log* in the *Reports Guide* for a report sample

- *Working with Message Logs* for information about entering and reviewing equipment messages

Processing Options for Equipment Message Log (R12450)

Print

Identify how to print the Equipment
Number. 1 = Asset Number (default) 2
= Unit Number 3 = Serial Number

1. Print Equipment Number _____

If Data Selection has been entered, then
please reentered the Data Selection
in order to print out the page
heading selection description .

Equipment Message Type _____

If there is two Data Selection criteria
entered, then please reentered in
the Second Equipment Message Type
entered.

Equipment Message Type 2 _____

Printing the Frequency of Occurrences Report

From the System Administration Tools menu (GH9011), choose Batch Versions.

Print the Frequency of Occurrences report to review the overall frequency of selected service types. This is particularly useful when you need to review maintenance patterns by specific type of repair.

The report shows the service types that you specify, the estimated and actual frequency of each service type, and the percentage of each service type for which maintenance has been fulfilled.

The system draws information for this report from the following tables:

- Asset Master (F1201)
- Maintenance Schedule (F1207)

Technical Considerations

Report access

You can only access this report by using the following procedure:

Type R13419 in the Batch Application field on the Work With Batch Versions form and then click Find. A list of available versions appears in the detail area. Choose the version that you want to run and click Select.

See Also

- *R13419, Frequency of Occurrences* in the *Reports Guide* for a report sample

Processing Options for Frequency of Occurrences Report (R13419)

Date

Enter the From date:
 (Actual Date Maintenance
 was completed)
 Enter the Thru date:

Appendices

Appendix A: Inventory Concepts and Setup

This appendix contains important information that you need if you use the Inventory Management system to manage parts inventories.

About Inventory Concepts

You can plan for future parts needs by reviewing information that the system provides about parts and part quantities. For example, you can monitor quantity information about how many parts are on demand, available in supply, and available to be promised. To use quantity information to determine your current and future inventory needs, you need to understand the following concepts.

Stocking Types

In most inventory environments, such as a manufacturing environment, non-stock parts are rare. But within the maintenance organization, the demand for parts is often not predictable, and it is impractical to stock every part for which there might be a future demand. Generally, maintenance planners consider inventory as a way to handle emergency replacement parts and to act as a temporary holding area for stock and nonstock parts.

Within the maintenance organization, it is necessary to identify three different stocking types, as follows:

Stock parts

The most vital parts for which you know there is a predictable demand, such as parts required for routinely scheduled maintenance tasks. Typically, you want to keep a physical inventory of these parts.

Pseudo nonstock parts

Parts for which you do not need to keep a physical on-hand quantity, such as parts required for future maintenance tasks or parts that are easily and quickly acquired. Typically you don't want to keep a physical inventory of such parts. However, you want to maintain inventory records to assist in planning and to simplify purchasing. You can set up pseudo nonstock parts with an inventory master record and indicate an on-hand quantity of zero.

Nonstock parts

Parts for which you rarely have a need and for which you do not need an inventory master.

On-Hand Quantity versus Available Quantity

On-hand quantity refers to the number of parts that are physically in stock in the primary unit of measure. On-hand quantity of parts can be affected by the following:

- Variances recorded following a physical inventory
- Daily removals, additions, or transfers of parts
- Shipment confirmations or updated sales information
- Locations with lots on hold, such as parts requiring inspection or placed in quarantine

Available quantity refers to the number of parts that you can use based on user defined calculations. You determine how the system calculates part availability by defining the factors that subtract from, or add to, the available quantity of a part. This calculation can include quantities that do not immediately affect on-hand amounts.

For example, you can set up the availability calculation to subtract any quantities that are committed to work orders, and add any quantities that are on purchase orders or in transit.

Commitments

When you set up general planning constants, you can specify whether the system uses hard or soft commitments to commit parts to a work order.

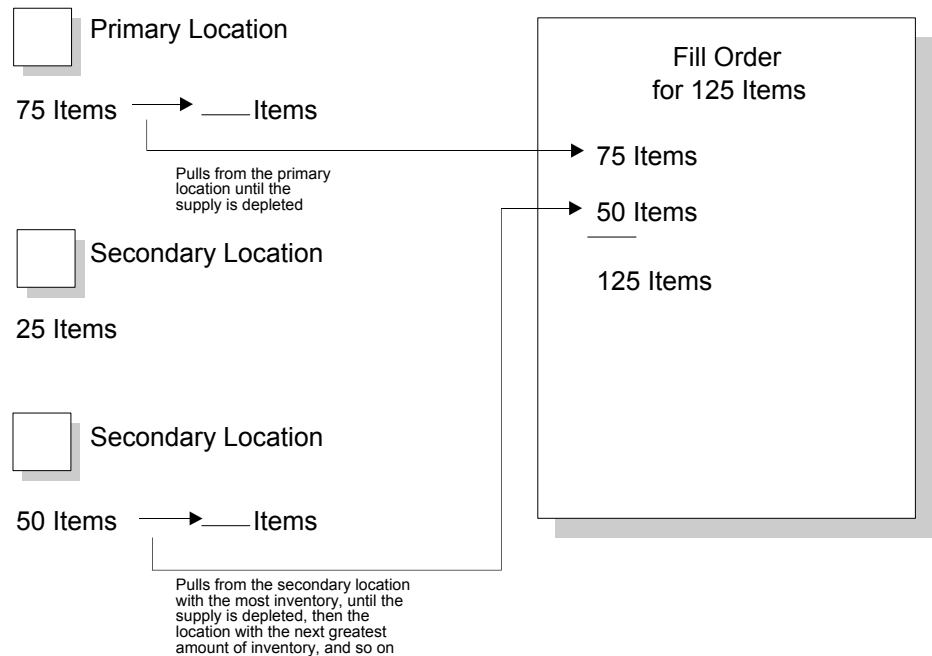
When you specify hard commitment, the system does the following:

- Indicates an actual reduction in inventory at the point that the maintenance task creates a demand for the part
- Specifies a location from which to remove parts

When you specify soft commitment, the system does the following:

- Does not indicate an actual reduction in inventory at the point that the maintenance task creates a demand for the part
- Does not specify a location from which to remove the part

The following graphic illustrates shows how the Inventory Management system commits inventory:



Supply and Demand Quantities

The system uses supply and demand inclusion rules to calculate the supply and demand quantities for an inventory part. Unlike a manufacturing environment where work orders create a supply of parts or materials, work orders in a maintenance environment create a demand for parts.

Starting with the requested date on the work order parts list, the system calculates the demand quantity from the following sources:

- Work order requirements and parts lists - The quantity required minus the quantity issued
- Safety stock - Any quantity reserved as protection against fluctuations in demand and supply

Starting with the requested date on purchase orders, the system calculates the supply quantity from the following sources:

- On-hand inventory - The quantity on hand minus hard commitments and quantities on work orders
- Purchase orders - The quantity entered on purchase orders

Kits in Manufacturing Systems

It is important to remember that in manufacturing systems, the word “kit” has a different meaning than in the distribution environment, as described below:

- Manufacturing systems use the bill of material to create a parts list for a work order. When you create a work order, you are preparing to produce a product. The parts list indicates the material and quantity that you will need.
- Distribution systems use the bill of material to locate and assemble a group of items.

About the Inventory Item Master

To ensure that maintenance planning features function properly, several fields on Item Master Revisions and Item/Branch Plant Information require special attention. You can access both forms within the Inventory Management system.

Item Master Revisions Form

Item Number	1001	Item Number (Short)	60003
Catalog Number	1001	Description	Bike Rack - Trunk Mount
Description		Search Text	Bike, Rack
Stocking Type	P	Purchased inc. Ra	Inventory Cost Level
G/L Class	IN30	Inventory	Sales Price Level
Unit of Measure	EA	Each	Purchase Price Level
Line Type	S	Stock Inventory Ite	Kit Pricing Method
Bulk/Packed Flag	P	Packaged Item	Lot Status Code

You must complete the following fields for each maintenance part that needs a master record.

Note: The values that you enter in these fields will be default values in the same fields on the Item/Branch Plant Information form.

Stocking Type

A user defined code that indicates how a part is normally stocked.

The stocking type that you enter for maintenance parts must have an M or a P as the second description line.

- M: Parent part number. The system uses this stocking type when it processes inventory parts for planning.
- P: Individual parts or components of a parent part.

For example, assume you are creating master information for a hydraulic PM kit and each part within the kit. The parts include a motor and a filter. Enter a stocking type that includes M as the second line of description for the PM kit. Enter a stocking type that includes P as the second line of description for the motor and the filter.

Note: When defining inventory parts (particularly kits), do not use hard coded stocking types. Instead, create your own stocking type and enter a M or P in the second description.

Do not enter a stocking type with a second description line of K (kit). Kit is used to process sales order items.

G/L Class

A user defined code that controls which general ledger accounts receive the monetary amount of inventory transactions for this item.

You might need to set up an additional G/L class code for parts inventory if you use the Inventory Management system for other applications, such as manufacturing.

Line Type

A code that controls how the system transacts lines on a transaction. The line type does the following:

- Controls which system the transaction interfaces with, such as General Ledger, Inventory, Accounts Payable, and so on.
- Specifies conditions under which the system prints a line on reports and includes a line in calculations.

You should choose a line type according to the stocking method for the part. For example, if you are creating a master for a pseudo nonstock item (one that you don't want to keep a physical on-hand quantity, but that you still want to track as an inventory item) choose a line type that interfaces with inventory.

Line type N has special logic that the system uses to process parts that are truly nonstock and for which you do not maintain inventory master information.

To use parts planning functions in Equipment/Plant Maintenance, you must enter a value in at least one of the following fields for each part, as follows:

- Planner Number
- Buyer Number
- Master Planning Family

The Planner Number and Buyer Number fields are located on the Item Master form, as well as the Item/Branch Plant Information form. The Master Planning Family field is located on the Category Codes form and is discussed later in this appendix.

Planner Number

The address number of the material planner for a part.

You must enter a planner number to be able to run parts inquiries and searches by planner.

Buyer Number

The address number of the person responsible for setting up and maintaining the correct stocking levels for inventory parts.

You must enter a buyer number to be able to run parts inquiries and searches by buyer.

Item/Branch Plant Information Form

The screenshot shows a software window titled "Item Master - [Item/Branch Plant Info.]". At the top, there is a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with icons for "OK", "Can...", "Dis...", and "Ago". The main area of the form is divided into several sections. At the top, there are fields for "Item Number" (containing "1001"), "Branch/Plant" (containing "M30"), and "Bike Rack - Trunk Mount". Below this, there are two tabs: "Basic Branch/Plant Data" (selected) and "Additional Info...". The "Basic Branch/Plant Data" tab contains several fields and checkboxes. On the left side, there are fields for "Stocking Type" (with a dropdown arrow), "G/L Class" (containing "IN30"), "Line Type" (containing "S"), "Planner Number" (containing "8444"), "Buyer Number" (containing "8444"), "Supplier Number" (containing "4343"), "Print Message" (empty), "Commitment Method" (containing "1"), and "Country of Origin" (containing "USA"). On the right side, there are checkboxes for "Purchased inc. Raw Material", "Sales Taxable" (checked), "Purchasing Taxable" (checked), "Lot Process Type", "Lot Status Code", "Serial No. Required" (unchecked), "Check Availability" (checked), and "Backorders Allowed" (checked). The form also includes a status bar at the bottom with a globe icon.

You must enter a value in the Supplier field on the Item/Branch Plant Information form for each part. You can access this form either from Work With Item Master or Work With Item Branch.

Supplier

The address number of the preferred provider of this item at this branch or plant.

J.D. Edwards recommends that you enter a supplier for each branch or plant.

Additional System Information Form

From the Work With Item Master form in the Inventory Management system, you can access the Additional System Information form. You must complete the following fields on this form to specify the rules by which the system plans for, orders, and issues parts.

Order Policy Code

A code that designates the rules for reordering in the Requirements Planning system.

J.D. Edwards recommends that you enter a 1 in this field.

Issue Type Code

A code that defines how each item in the bill of material is issued from stock.

With the exception of floor stock items, such as small hardware, fasteners, and so on, J.D. Edwards recommends that you enter an I in this field to indicate a manual issue for maintenance parts.

Planning Code

A code that indicates how the system processes this item.

J.D. Edwards recommends that you enter a 2 in this field.

Time Basis

A code that identifies the time basis or rate to use for setup, machine, or labor hours entered for any routing step.

J.D. Edwards recommends that Equipment/Plant Maintenance users enter a U in this field.

Category Codes Form

To aid in parts planning and inquiry functions, you can assign each part to a master planning family. If you did not enter a planner number or a buyer number on either Item Master Revisions or Item/Branch Plant Information, you must enter a value for the master planning family.

Master Planning Family

A code under which you can organize logically-related parts. For example, you can organize parts by type, location, machine, and so on.

About Inventory Setup

The following Inventory Management setup tasks have special implications for Equipment/Plant Maintenance users:

- Setting up branch or plant constants

- Setting up stocking type codes (user defined code, 41/I)
- Setting up line types

In addition to these tasks, setting up line types in the Purchase Management system has special implications for Equipment/Plant Maintenance users.

Setting Up Branch/Plant Constants

When you set up constants for each branch or plant, you should enter values in the following fields to ensure that inventory transactions create journal entries in the general ledger. In addition, you can specify a description for inventory transactions.

Interface G/L (Y/N)

Enter a Y to ensure that inventory transactions processed through this branch or plant create general ledger entries.

General Ledger Explanation

Depending on your reporting needs, you can specify the description that appears on the second line of the general ledger journal entry for inventory transactions:

- Enter a 1 for the item master description (part name)
- Enter a 2 for the primary item number (part number)

Write Units to Journal Entries

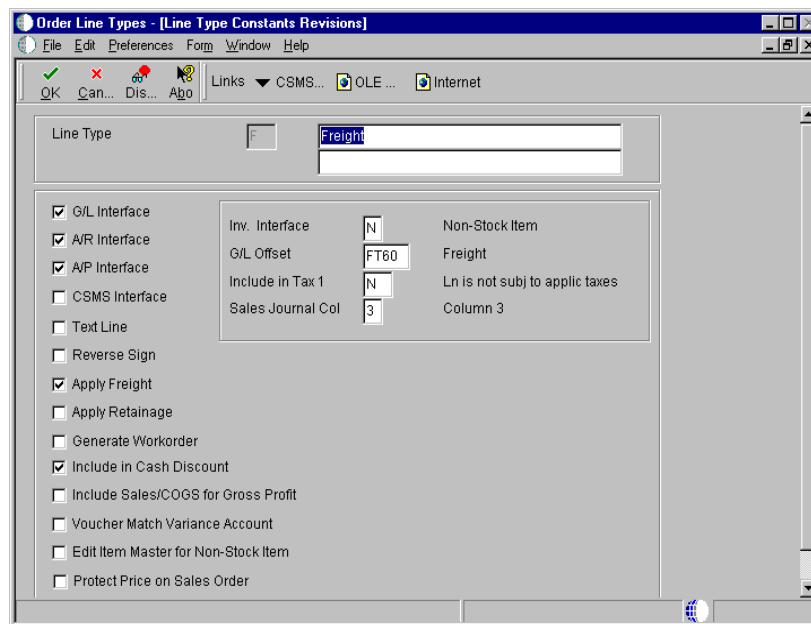
Depending on your reporting needs, you can specify that the system enters both amounts and units for inventory transactions on the Account Ledger table (F0911).

Setting Up Stocking Type Codes

When setting up stocking type codes do not use hard-coded stocking types. Instead, create your own stocking type and enter a M or P in the second description line. Do not enter a K (Kit). This code is reserved for sales order processing.

Note: You can use the hard coded stocking types if you are actually using the parts for their intended purpose.

Setting Up Line Types



Line types control how parts transactions interface with the General Ledger and the Inventory Management system. Specifically, the line type that you assign to a part is a code that does the following:

- Controls which of four systems with which the transaction interfaces, such as General Ledger, Inventory Management, Accounts Receivable, and Accounts Payable
- Specifies the conditions for printing a line on reports
- Specifies the conditions for including a line in calculations

You set up line types in the Procurement system. Depending on your planning and reporting needs, you might need to set up an additional line type to differentiate pseudo nonstock part transactions from genuine nonstock part transactions.

Caution: You should be thoroughly familiar with order line types before you add or modify them. Extreme damage to your system can occur if you do not set up order line types with precision and logic.

See Also

- *Setting Up Order Line Types* in the *Procurement Guide*

The following fields on Line Type Constants Revisions have special significance for Equipment/Plant Maintenance users.

G/L Interface	<p>An option that indicates whether the system reflects the monetary or unit value of any activity containing this order line type in the general ledger.</p> <p>J.D. Edwards recommends that Equipment/Plant Maintenance users turn on this option.</p>
Inventory Interface	<p>A code that identifies the type of interface to the Inventory Management system. Valid codes are:</p> <p>Y - The system reflects the monetary or unit value of any activity containing this line type in inventory. The system edits the item you enter to ensure that it is a valid item.</p> <p>A - The system recognizes the number entered as a G/L account number. This code is used in purchasing only.</p> <p>B - The system edits the item and the G/L account when using format 4 in purchase order entry. The system retrieves price data from the inventory tables, but the system does not update the quantity on the purchase order. This code is valid only when the Interface with G/L code is set to Y (yes). Budget checking is fully functional with this interface type.</p> <p>D - The item in this line is an inventory item that will not affect availability or quantities.</p> <p>N - The item is not an inventory item.</p>