

# Infor XA – Order Based Production Management Concepts Guide

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#### **Publication Information**

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# To the reader

This book contains information you need to understand and run the Order-Based Production Management (OBPM) application. The information in this book applies only to Infor ERP XA (XA).

#### Before you begin

Complete the following training if you do not have equivalent knowledge:

- System i education for the basic operation concepts of System i.
- · Education on how to use a Windows application.

#### What this book contains

This book contains the information you need to understand OBPM.

- Chapter 1, "Order-Based Production Management (OBPM)" introduces the application and provides an overview of OBPM's and RBPM's application objects.
- Chapter 2, "Monitoring Demand for Manufacturing Orders" shows how to monitor demand for manufacturing orders using reorder recommendations, MRP recommendations, customer demand records, and shortage reports. This chapter also shows you how to check for component availability.
- Chapter 3, "Creating Manufacturing Orders" shows you how to create manufacturing orders using OBPM objects.
- Chapter 4, "Maintaining Manufacturing Orders" shows you how to maintain manufacturing orders and print manufacturing order documents.
- Chapter 5, "Completing and Closing Manufacturing Orders" shows you how to complete and close manufacturing orders.
- Chapter 6, "Working with Recommendations" shows how to use Reorder Recommendations and MRP Recommendations to create requisitions, purchase orders, and intersite orders. This chapter also explains some of the Maintain menu options available in MRP Recommendations.
- Appendix A, "Application Settings" explains choices you can set in the OBPM application.

#### Other books

For a complete list of books in the XA library, see the bibliography included on the Infor ERP XA documentation CD.

#### **Summary of changes**

The following changes have been made to this release:

- Integration with EPDM: If EPDM is installed, the Order-Based Production Management application is now fully integrated with the EPDM functions and Item Revisions replaces Item Master. While this guide might contain references to Item Master files, the functions in this application now use Item Revisions for item information. For more information, see the Enterprise Product Data Management Concepts Guide.
- Customer Demand: Generate Pick List host job is now available for customer demand records.
- Item Warehouses and Item Locations: The option, Cycle Count, on the Maintain menu of these three objects are replaced with the Cycle Count host job in these objects.
- Warehouses: The options, Cycle Count and Physical Inventory, on the Maintain menu of Warehouses are replaced with a Cycle Count and Physical Inventory host job in the Warehouses object.

For more information about these host jobs, see the Materials Management Concepts Guide.

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# **Chapter 1. Order-Based Production Management (OBPM)**

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Order-Based Production Management (OBPM) provides you with easy access to all the information required to view, control, and manage your manufacturing orders. You can immediately respond to problems on the shop floor without wasting time, steps, materials, and labor. You can view details about the availability of components before releasing orders and then respond to MRP recommendations for purchase and manufacturing orders to ensure smooth production workflow.

You can create, maintain, report activity on, complete and close orders directly from a variety of sources. Besides creating or copying manufacturing orders, you can generate reorder recommendations by warehouse and create manufacturing orders during generation. Using several objects in OBPM, you can view component availability, and adjust those components to fill manufacturing orders. You can use order and item shortage reports to help you define the need for manufactured items and, in several objects in OBPM, create manufacturing orders to meet those shortages. With Customer Order Management (COM) installed, you can review customer demand records and create manufacturing orders for customer order line item releases. With

Material Requirements Planning (MRP) installed, you can create manufacturing orders using recommendations generated through an MRP planning run.

After creating manufacturing orders, you can link them to customer orders or add bills of material and routings. For manufacturing operations, you can add or delete milestones. Other manufacturing tasks you can perform in OBPM include; printing on demand shop packets, work lists, and manufacturing order close transaction registers.

OBPM helps you track manufacturing order labor and material processes associated with each order. OBPM ensures each process is performed in sequence. For example, you may close a manufacturing order normally only when the labor complete, receipt of material, and material complete operations are completed for the order. Use Inventory Management (IM) and Production Control and Costing (PC&C) to perform the order closeout and purge processes. Labor reporting must be performed in PC&C or Production Monitoring and Control (PMC).

In addition to creating and maintaining manufacturing orders, you can use objects in OBPM to view and maintain information related to purchasing and inventory. For example, in Reorder Recommendations, you can create requisitions, purchase orders, and intersite orders.

OBPM does not split manufacturing orders but does support other functions on split orders. OBPM does not create or release manufacturing orders for Knowledge Based Configurator (KBC) items, but it does support other functions on an order for a KBC item.

OBPM interfaces with other XA applications. Each interface provides additional features to either OBPM or the interfacing application:

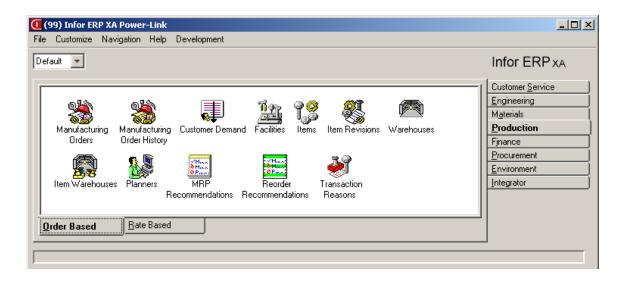
- OBPM requires XA Browser, IM, and PC&C applications to be installed.
- OBPM gains functionality if the following applications are installed:
  - Customer Order Management (COM): View and create orders for customer order line item releases through the Customer Demand object.
  - **Production Data Management (PDM):** Use the primary bill of material or routing when creating a manufacturing order.
  - **Enterprise Production Data Management (EPDM):** Use the primary bill of material or routing, and import an item revision and process when creating a manufacturing order.
  - **Procurement Management (PM):** Create requisitions and purchase orders.
  - InterSite Logistics (ISL): Create and manage orders for intersite items.
  - **Material Requirements Planning (MRP):** Review, approve, create, and maintain orders using MRP Recommendations.

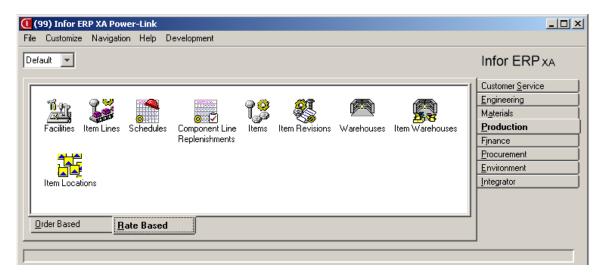
#### **Order-Based and Rate-Based Production Management objects**

You can view information contained in the following OBPM and RBPM objects on the Production tab:

- · Order Based tab
  - Manufacturing Orders
  - M.O. Components
  - M.O. Operations
  - M.O. Miscellaneous Charges
  - Labor Activity
  - Manufacturing Order History
  - M.O. History Components
  - M.O. History Operations
  - M.O. History Miscellaneous Charges
  - Labor Activity History
  - Customer Demand
  - Production Facilities
  - Facilities
  - Items
  - Item Revisions
  - Warehouses
  - Item Warehouses
  - Planners
  - MRP Recommendations
  - Reorder Recommendations
  - Transaction Reasons
  - Sources of Demand
  - Production Receipts
  - Component Availability: Potential Orders
  - Component Availability: Components.
- · Rate Based tab
  - Facilities
  - Item Lines
  - Item Line Components
  - Schedules
  - Schedule Components
  - Schedule Operations
  - Component Line Replenishments
  - Items
  - Item Revisions
  - Warehouses
  - Item Warehouses
  - Item Locations
  - Sources of Demand.

Each object represents a different type of order-based or rate-based production information, such as manufacturing orders and the components that are part of those orders. Objects such as Facilities, Planners, and Items, represent static information that you setup once and use to process information that is more dynamic. Objects such as Manufacturing Orders, represent dynamic information that enters the system, is processed and eventually closed out, and sometimes, but not always, saved to history.





Some objects have hierarchical relationships to other objects. These relationships generally occur when header information in one object is related to detailed information in other objects. For example, a manufacturing order is related to any components, operations, and miscellaneous charges that you entered for the order. Objects that are lower-level to other objects in the hierarchy might not appear on the XA desktop, but you can access these lower-level objects through their higher-level objects. Display menu options or card files provide easy access to lower-level objects. For example, the M.O. Components object is a lower-level object to the Manufacturing Orders object. You can select M.O. Components on the Display menu of Manufacturing Orders to see a list of components for a selected manufacturing order or you can view the Components or Overview card in the Manufacturing Orders Default card file to see of the same list of components.

Display menu options also provide easy access to other objects, which have related information. These objects are available on the XA desktop and from the object you select. When you select the related object in the object you are interested in viewing, the information in the list window relates only to the object you want to view. For example, you are interested in viewing all the item warehouses associated with a planner in your company. You can view item warehouse

information for all items and warehouses in the Item Warehouses object but this object gives you too much information. Instead, in the Planners object, select the planner and use the Planner Item Warehouses option to view all item warehouses for only that planner. Some objects such as Sources of Demand, you can only view from another object.

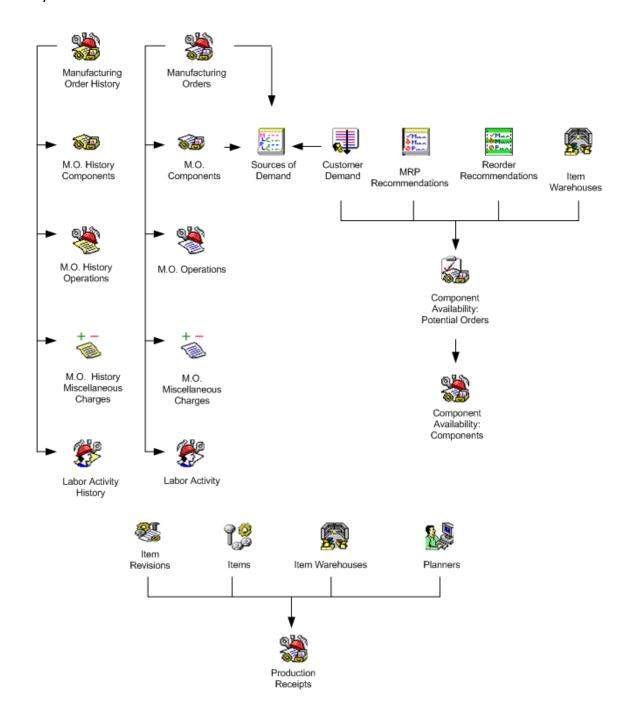
In OBPM, you can use Maintain menu options to view and maintain information in other lower-level objects. For example, in Customer Demand, MRP Recommendations, Reorder Recommendations and Item Warehouses; you can select the Check Component Availability option on the Maintain menu to see a list of Component Availability: Potential Orders and Component Availability: Components.

Many objects you view on the Production tab are available from other applications. For example, you find the Items object on the desktop of many applications, including OBPM, so you do not need to navigate to another application to view commonly used information.

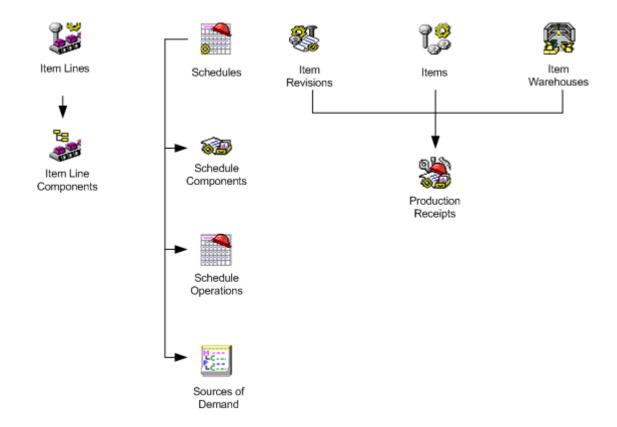
In OBPM and RBPM, the objects that have lower-level objects are:

- · Manufacturing Orders
- Manufacturing Order History
- Customer Demand
- Items
- · Item Revisions
- Item Warehouses
- Planners
- MRP Recommendations
- Reorder Recommendations
- Item Lines
- · Schedules.

The following figure demonstrates the relationship among OBPM objects and their lower-level objects.



The following figure demonstrates the relationship among RBPM objects and their lower-level objects.

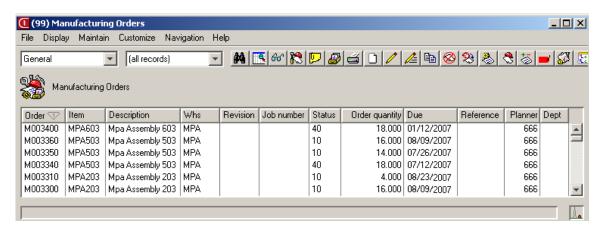


# **Manufacturing Orders**

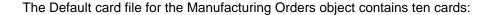


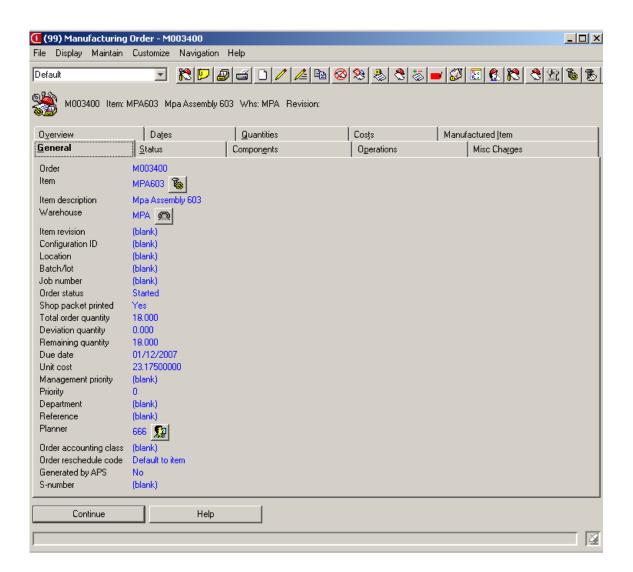
The Manufacturing Orders object contains information related to released manufacturing orders, such as item and description, warehouse containing the item, job number, status, order quantity, stocking unit of measure, date due, and the planner responsible for the order.

The Manufacturing Orders list window displays a list of manufacturing orders and includes the following information:



- Order
- Item
- · Item description
- Item warehouse
- · Item revision
- Job number
- Order status
- Total order quantity (calculated)
- Due date
- Reference
- Planner
- · Department.





Card	Displays this information
General	Manufacturing order information.
Status	Status information to describe where the manufacturing order is in the manufacturing process.
Components	Components for the item on the manufacturing order.
Operations	Operations for the item used on the manufacturing order. You can view dates, quantities, or hours by selecting the appropriate tab.
Misc Charges	Miscellaneous charges for the manufacturing order.
Overview	Manufacturing orders, components, operations, and miscellaneous charges associated with the item in an indented outline.
Dates	Date information for the manufacturing order.
Quantities	Quantity information for the manufacturing order.

Card	Displays this information
Costs	Cost information for the manufacturing order.
Manufactured Item	Item information for the item that your company manufactured for the manufacturing order.

On the Maintain menu on the Manufacturing Orders list window or card file, you can perform the following options:

Option	Use this option to
Cancel	Prevent XA users processing any transactions for an order. You use this option only for an order that has no activity (Order status is 10 - Released, no activity). The Order status changes from 10 - Released, no activity to 99 - Cancelled.
Activate	Reactivate manufacturing orders that are canceled (Order status is 99 - Cancelled). When you activate a canceled order, the Order status changes from 99 - Cancelled to 10 - Released, no activity. You can use the Activate option to reset orders that have an Order status of 45 - Material complete, 50 - Labor complete, or 55 - Complete; back to an Order status of 40 - Started.
Import Bill of Material	Import an existing bill of material after the manufacturing order is created, but before the manufacturing order starts.
Import Routing	Import an existing routing after the manufacturing order is created, but before the manufacturing order starts.
Labor Complete	Change the Order status to 50 - Labor Complete. To use a Labor Complete option on a line item, the original manufacturing order must have an Order status of 10 - Released, no activity, 40 - Started, or 45 - Material complete. OBPM updates the Order status of the selected manufacturing order to 50 - Labor complete or 55 - Complete.
Receipt of Material	Process a receive production item (RM) transaction for the order. To use a Receipt of Material option, the manufacturing order must have an Order status of 10 - Not released, 40 - Started, or 50 - Labor Complete.
Material Complete	Change the Order status to 45 - Material Complete. To use a Material Complete option, the manufacturing order must have an Order status of either 40 - Started or 50 - Labor complete.
Normal Close	Close an order that has been reported as having all material and labor completed. You may process a Normal Close with any manufacturing order unless the Order status is 99 - Cancelled. The Normal Close process steps the user through Labor Complete, Receipt of Material, and other functions required to bring the order to Order status 55 - Complete. <b>Note:</b> Orders that are closed are purged during the next Order Closeout Reporting and Purge that is run in IM or in PC&C, and no further activity can be reported on the order.
Force Close	Close the order despite the Order status. You may process a Force Close option with any of the manufacturing orders unless the Order status is 99 - Cancelled. <b>Note:</b> Orders that are closed are purged during the next Order Closeout Reporting and Purge that is run in IM or in PC&C, and no further activity can be reported on the order.
Reopen	Reverse the close function. If you want to report any additional activity on the order, you must also activate the order.

On the File menu, Host Print ... option on the Manufacturing Orders list window or card file, you can generate the following reports:

Host Print	Use this report to
Item Shortage	Show insufficient material to meet current release demand for an item at order release.
Order Shortage	Show insufficient material to meet current release demand for orders at order release.
Shop Packet	Print worksheets, pick lists, labor tickets, and receiving tickets.

On the File menu, Host Jobs  $\dots$  option on the Manufacturing Orders list window or card file, you can generate the following host job:

Host Jobs	Use this host job to
Generate Work List	Provide a work list for the manufacturing orders. You run the Generate Work List by site, not by manufacturing order. This host job updates the priorities of all the manufacturing orders in one or more sites and, if you want, prints one or more Work List Reports, a Critical Orders Report, and a Work Center Analysis Report. This host job can also be run by using the Submit Work List Generation (SBMPCCWLG) AS/400 command in OBPM in a user program, which you can set up to run on a scheduled basis using OS/400 scheduled jobs.

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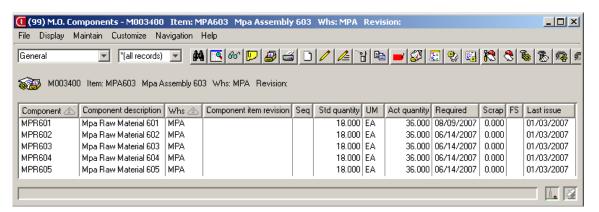
# M.O. Components



The M.O. Components object contains a list of all the components of the parent item on the selected manufacturing order.

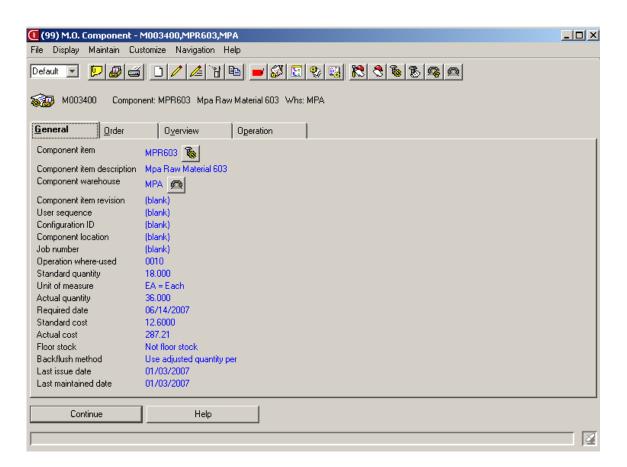
The M.O. Components object is a lower-level object of Manufacturing Orders. You can view the M.O. Components list window by selecting the M.O. Components option on the Display menu on the Manufacturing Orders list window or card file. You can also view M.O. components by selecting the Components card in the Manufacturing Order or M.O. Operation Default card file.

The M.O. Components list window displays a list of components for a manufacturing order and includes the following information:



- Order
- Component item
- Component item description
- Component warehouse
- Component item revision
- User sequence
- Standard quantity (total quantity required for this order)
- Unit of measure
- Actual quantity (quantity issued to date)
- Required date
- Scrap quantity
- Floor stock
- · Last issue date.

The Default card file for the M.O. Components object contains four cards:



Card	Displays this information
General	General information for the manufacturing order component for an item on the manufacturing order.
Order	Order information for the manufacturing order that contains the item associated with the component.
Overview	Manufacturing orders, components, operations, and miscellaneous charges associated with the item in an indented outline.
Operation	Operation information for the operation associated with the component item on the manufacturing order.

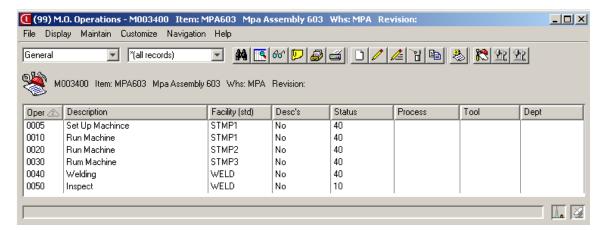
# M.O. Operations



The M.O. Operations object contains a list of all operations related to the item on the selected manufacturing order.

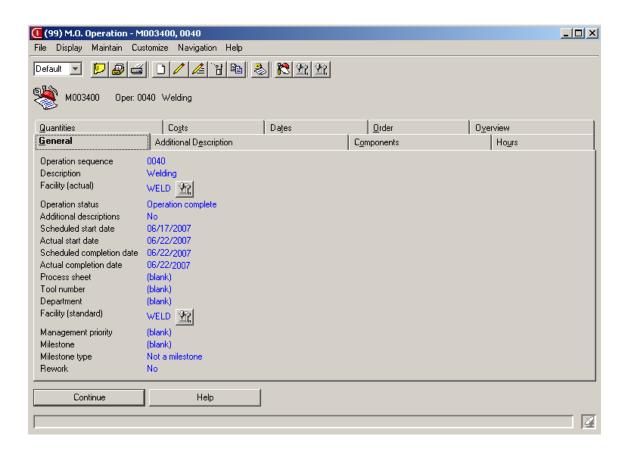
The M.O. Operations object is a lower-level object of Manufacturing Orders. You can view the M.O. Operations list window by selecting the M.O. Operations option on the Display menu on the Manufacturing Orders list window or card file. You can also view M.O. operations by selecting the Operations card in the Manufacturing Order Default card file.

The M.O. Operations list window displays a list of operations for an item on a manufacturing order and includes the following information:



- Order
- Operation sequence
- Description
- Facility (standard)
- Additional descriptions (derived)
- Operation status
- Process sheet
- · Tool number
- · Department.

The Default card file for the M.O. Operations object contains nine cards:



Card	Displays this information
General	Operation information for an item on the manufacturing order.
Additional Description	Descriptions, which further identify the operation.
Components	Components associated with the manufacturing order operation.
Hours	Setup, labor, and machine hour information for the manufacturing order operation.
Quantities	Quantity information for the quantities associated with the manufacturing order operation.
Costs	Operation, machine, and labor cost information for the manufacturing order operation.
Dates	Important dates associated with the manufacturing order operation.
Order	Manufacturing order information for the operation.
Overview	Manufacturing orders, components, operations, and miscellaneous charges associated with the item in an indented outline.

Option	Use this option to
Create Milestone	Group a collection of operations as a unit for tracking purposes. The range of the milestone must include all the sequence numbers that exist between the start sequence number and the ending operation sequence number.
Delete Milestone	Delete a milestone that is not required.

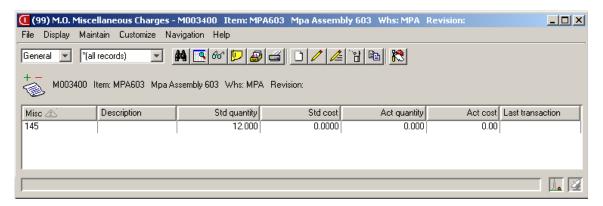
# M.O. Miscellaneous Charges



The M.O. Miscellaneous Charges object contains a list of standard and actual costs for miscellaneous charges related to the item on the selected manufacturing order.

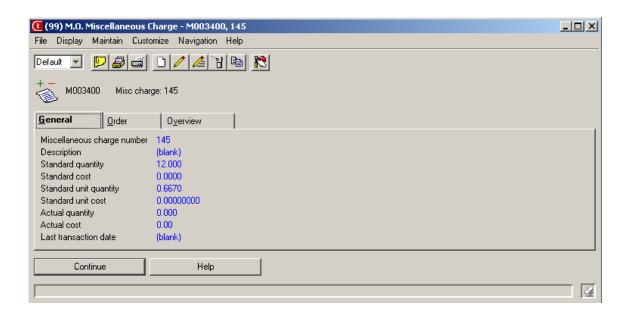
The M.O. Miscellaneous Charges object is a lower-level object of Manufacturing Orders. You can view the M.O. Miscellaneous Charges list window by selecting the M.O. Miscellaneous Charges option on the Display menu on the Manufacturing Orders list window or card file. You can also view M.O. miscellaneous charges by selecting the Misc Charges card in the Manufacturing Order Default card file.

The M.O. Miscellaneous Charges list window displays a list of miscellaneous charges for an item on a manufacturing order and includes the following information:



- Order
- Miscellaneous charge number
- Description
- Standard quantity (calculated)
- Standard cost (calculated)
- Actual quantity
- Actual cost
- · Last transaction date.

The Default card file for the M.O. Miscellaneous Charges object contains three cards:



Card	Displays this information
General	General information for the miscellaneous charge associated with the manufacturing order.
Order	Order information for the manufacturing order associated with the miscellaneous charge.
Overview	Manufacturing orders, components, operations, and miscellaneous charges associated with the item in an indented outline.

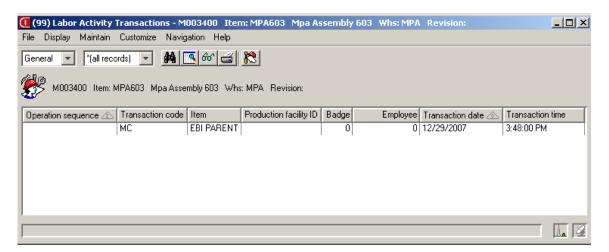
# **Labor Activity**



The Labor Activity object contains information about the labor activity transactions associated with a manufacturing order.

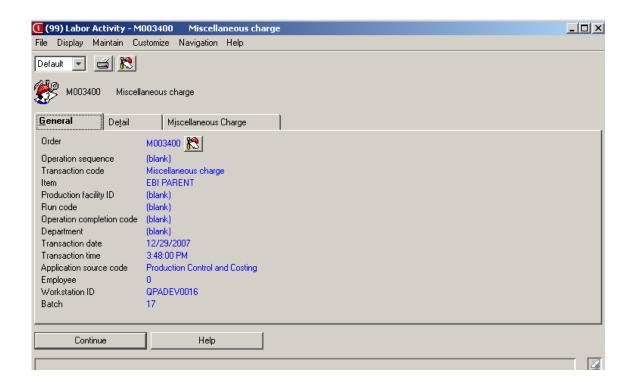
The Labor Activity object is a lower-level object of Manufacturing Orders. You find the Labor Activity Transactions list window by selecting the Labor Activity Transactions option on the Display menu of the Manufacturing Orders list window or card file.

The Labor Activity Transactions list window displays a list of labor activity transactions for a manufacturing order and includes the following information:



- Order
- Operation sequence
- Transaction code
- Item
- · Production facility ID
- Badge
- Employee
- Transaction date
- Transaction time.

The Default card file for the Labor Activity object contains three cards:



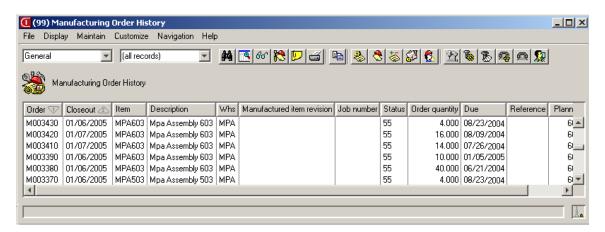
Card	Displays this information
General	General information for the labor activity transaction associated with the manufacturing order.
Detail	Detailed information for labor activity transaction associated with the manufacturing order.
Miscellaneous Charge	Miscellaneous charge information for the labor activity transaction associated with the manufacturing order.

# **Manufacturing Order History**

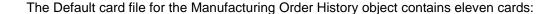


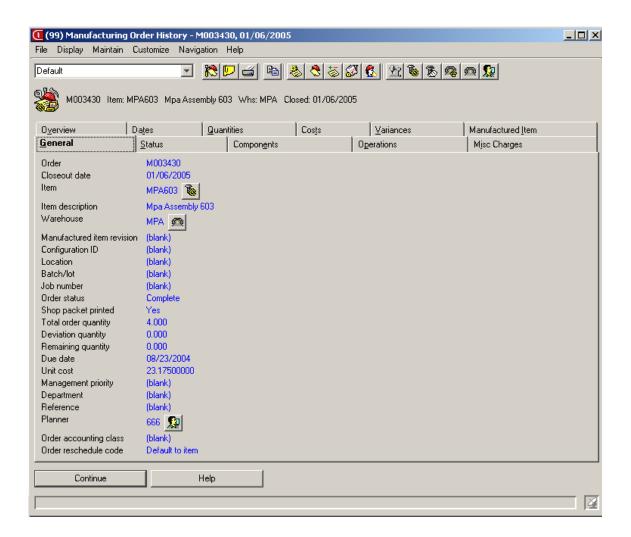
The Manufacturing Order History object contains information related to manufacturing orders that are purged.

The Manufacturing Order History list window displays a list of purged manufacturing orders and includes the following information:



- Order
- Closeout date
- Manufactured item
- Manufactured item description
- Manufactured item warehouse
- · Manufactured item revision
- Job number
- · Order status
- Total order quantity (calculated)
- · Due date
- Reference
- Planner
- Department.





Card	Displays this information
General	General information for the purged manufacturing order.
Status	Status information to describe where the purged manufacturing order was in the manufacturing process.
Components	Components for the item on the purged manufacturing order.
Operations	Operations for the item used on the purged manufacturing order. You can view dates, quantities, or hours by selecting the appropriate tab.
Misc Charges	Miscellaneous charges for the purged manufacturing order.
Overview	Components, operations, and miscellaneous charges associated with this purged manufacturing order, in an indented outline.
Dates	Date information for the purged manufacturing order.
Quantities	Quantity information for the purged manufacturing order.
Costs	Cost information for the purged manufacturing order.

Card	Displays this information
Variances	Specific variance detail related to the selected purged manufacturing order.
Manufactured Item	Item information for the item your company manufactured for the purged manufacturing order.

On the Maintain menu on the Manufacturing Order History list window or card file, you can perform the following option:

Option	Use this option to
Copy to Manufacturing Order	Create a manufacturing order based on the information in Manufacturing Order History. You can copy any components, operations, and miscellaneous charges on the manufacturing order history record.

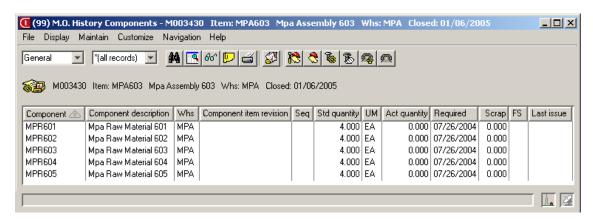
# **M.O. History Components**



The M.O. History Components object contains a list of all the components of the parent item on the selected manufacturing order that is purged.

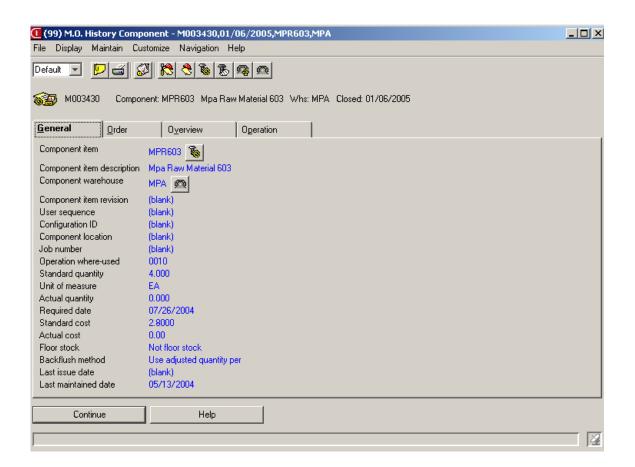
The M.O. History Components object is a lower-level object of Manufacturing Order History. You can view the M.O. History Components list window by selecting the M.O. History Components option on the Display menu on the Manufacturing Order History list window or card file. You can also view M.O. history components by selecting the Components card in the Manufacturing Order History Default card file.

The M.O. History Components list window displays a list of components for a purged manufacturing order and includes the following information:



- Order
- Component item
- · Component item description
- · Component warehouse
- Component item revision
- User sequence
- Standard quantity
- · Unit of measure
- Actual quantity
- Required date
- Scrap quantity
- Floor stock
- · Last issue date.

The Default card file for the M.O. History Components object contains four cards:



Card	Displays this information
General	General information for the manufacturing order component on the purged manufacturing order.
Order	Order information for the purged manufacturing order that contains the component.
Overview	Components, operations, and miscellaneous charges associated with the purged manufacturing order with this component item, in an indented outline.
Operation	Operation information for the component on the purged manufacturing order.

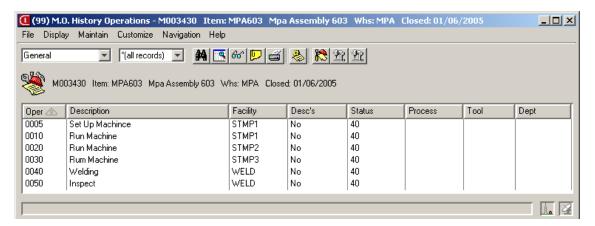
# **M.O. History Operations**



The M.O. History Operations object contains a list of all operations related to the item on the selected manufacturing order that is purged. You can see whether additional routing descriptions are defined for this operation.

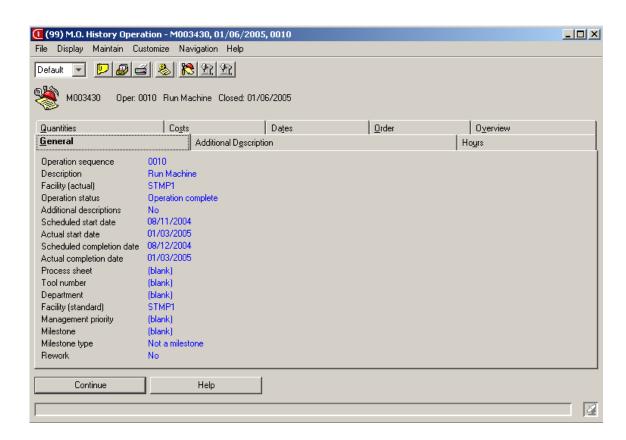
The M.O. History Operations object is a lower-level object of Manufacturing Order History. You can view the M.O. History Operations list window by selecting the M.O. History Operations option on the Display menu on the Manufacturing Order History list window or card file. You can also view M.O. history operations by selecting the Operations card in the Manufacturing Order History Default card file.

The M.O. History Operations list window displays a list of operations for an item on a purged manufacturing order and includes the following information:



- Order
- · Operation sequence
- Description
- Facility (actual)
- Additional descriptions (derived)
- Operation status
- Process sheet
- · Tool number
- · Department.

The Default card file for the M.O. History Operations object contains eight cards:



Card	Displays this information
General	General information for the manufacturing order operation on the purged manufacturing order.
Additional Description	Descriptions, which further identify an operation on the purged manufacturing order.
Hours	Setup, labor, and machine hour information for the manufacturing order operation.
Quantities	Quantity information for the manufacturing order operation.
Costs	Operation, machine, and labor cost information for the manufacturing order operation.
Dates	Important dates associated with the manufacturing order operation.
Order	Order information for the purged manufacturing order for the operation.
Overview	Components, operations, and miscellaneous charges associated with the purged manufacturing order with this operation, in an indented outline.

#### M.O. History Miscellaneous Charges



The M.O. History Miscellaneous Charges object contains a list of all miscellaneous charges related to the item on the selected manufacturing order that is purged.

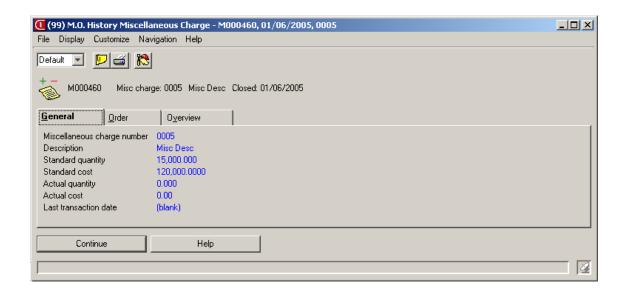
The M.O. History Miscellaneous Charges object is a lower-level object of Manufacturing Order History. You can view the M.O. History Miscellaneous Charges list window by selecting the M.O. History Miscellaneous Charges option on the Display menu on the Manufacturing Order History list window or card file. You can also view M.O. history miscellaneous charges by selecting the Misc Charges card in the Manufacturing Order History Default card file.

The M.O. History Miscellaneous Charges list window displays a list of miscellaneous charges on a purged manufacturing order and includes the following information:



- Order
- · Miscellaneous charge number
- Description
- Standard quantity (calculated)
- Standard cost (calculated)
- Actual quantity
- Actual cost
- · Last transaction date.

The Default card file for the M.O. History Miscellaneous Charges object contains three cards:



Card	Displays this information
General	Miscellaneous charge information for the purged manufacturing order.
Order	Order information for the miscellaneous charge.
Overview	Components, operations, and miscellaneous charges associated with the purged manufacturing order with this miscellaneous charge, in an indented outline.

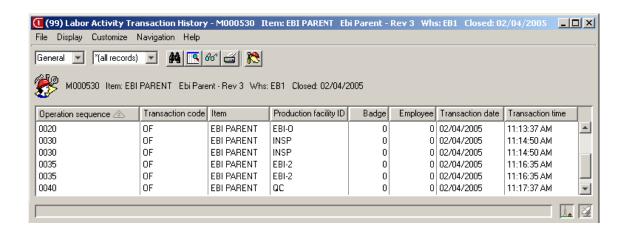
# **Labor Activity History**



The Labor Activity History object contains information about the labor transactions associated with a manufacturing order that is purged. OBPM keeps labor transaction history with manufacturing order histories when XA closes and purges the order through IM or PC&C.

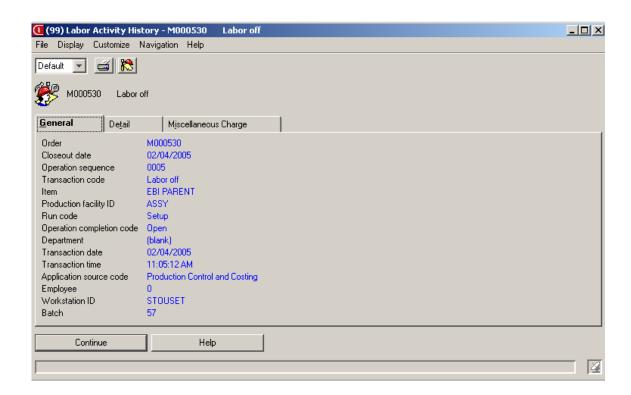
The Labor Activity History object is a lower-level object of Manufacturing Order History. You find the Labor Activity Transaction History list window by selecting the Labor Activity Transaction History option on the Display menu of the Manufacturing Order History list window or card file.

The Labor Activity Transaction History list window displays a list of labor transactions for a purged manufacturing order and includes the following information:



- Order
- Closeout date
- Operation sequence
- Transaction code
- Item
- Production facility ID
- Badge
- Employee
- Transaction date
- Transaction time.

The Default card file for the Labor Activity History object contains three cards:



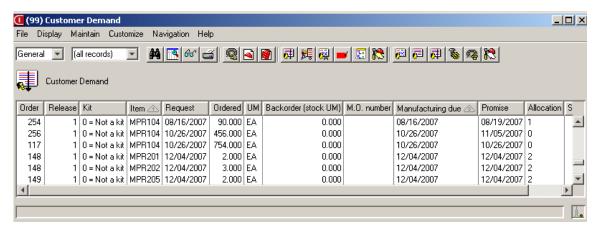
Card	Displays this information
General	General information for the labor activity history associated with the manufacturing order.
Detail	Detailed information for labor activity history associated with the manufacturing order.
Miscellaneous Charge	Miscellaneous charge information for the labor activity history associated with the manufacturing order.

#### **Customer Demand**



Customer Demand gives you a way to view selected line item releases for your customer orders if COM is installed. You can use Customer Demand to check the availability of components for manufacturing the items on a customer order and you can create manufacturing orders for customer order line item releases in the Customer Demand list window.

The Customer Demand list window displays a list of customer order item releases and includes the following information:



- Order
- Release sequence
- Kit indicator
- Item
- Request date
- Order quantity (stock UM)
- · Stocking unit of measure
- Backorder quantity in stocking unit of measure (calculated)
- Manufacturing order number
- · Manufacturing due date
- · Promise date
- Allocation type
- S-number.

The Customer Demand object has no card file. Depending on the customer demand record you select, you open the Default card file for one of the following objects:

- C.O. Line Item Releases
- C.M. Line Item Releases
- Quote Line Item Releases
- S.O. Line Item Releases.

On the Maintain menu on the Customer Demand list window, you can perform the following options:

Option	Use this option to
Check Component Availability	Search for available components related to the selected order. The ability to check for available components helps you to consider alternatives if a particular component is not available. You can use this option to analyze interactively the availability of components for one order or a group (a subset of records, or a group of selected orders) of potential manufacturing orders. The option provides viewing capabilities by order and by component. You can view lists of all orders and components or only orders and components that are short. The option also provides 'what if' component substitutions and order quantity changes.
Create M.O.	Create a manufacturing order using a customer demand order which contains information from the customer order line item release.
Mass Create M.O.	Mass create manufacturing orders using customer demand records that contain information from customer order line item releases.

On the File menu, Host Jobs ... option on the Customer Demand list window, you can generate the following host job:

Host Jobs	Use this host job to
Generate Pick List	Create a list of items you need to pick for an order. When you generate the pick list, you can also print the pick list and packing list.

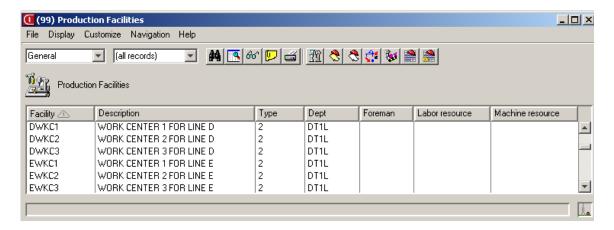
## **Production Facilities**



A production facility is a group of machines with similar characteristics you use to perform a manufacturing process, such as an assembly area or milling machine center. A production facility is either a work center, production line, or work station.

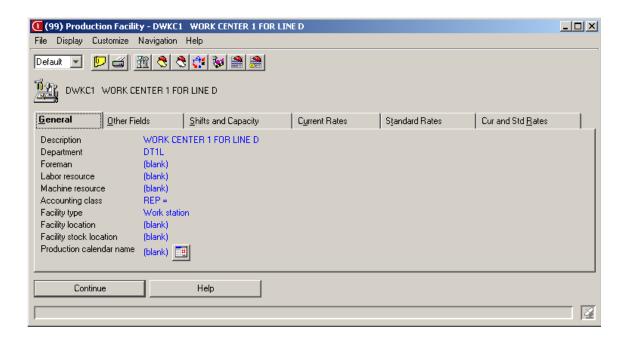
The Production Facilities object is available on the Production desktop if you have PDM Plus installed.

The Production Facilities list window displays a list of facilities and includes the following information:



- Facility
- Description
- Facility type
- Department
- Foreman
- · Labor resource
- · Machine resource.

The Default card file for the Production Facilities object contains six cards:



Card	Displays this information
General	General information for the facility.
Other Fields	Facility information that OBPM does not show on other cards.
Shifts and Capacity	Work hours and capacity information for the facility.
Current Rates	Current costs for machines and labor.
Standard Rates	Standard costs for machines and labor.
Cur and Std Rates	Current and standard costs for machines and labor.

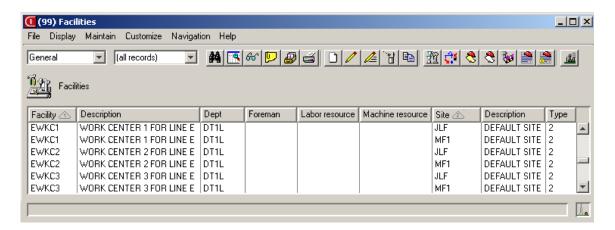
## **Facilities**



A facility is a group of machines with similar characteristics you use to perform a manufacturing process. For example, an assembly area or milling machine center. A facility, often called a production facility, is either a work center, production line, or work station.

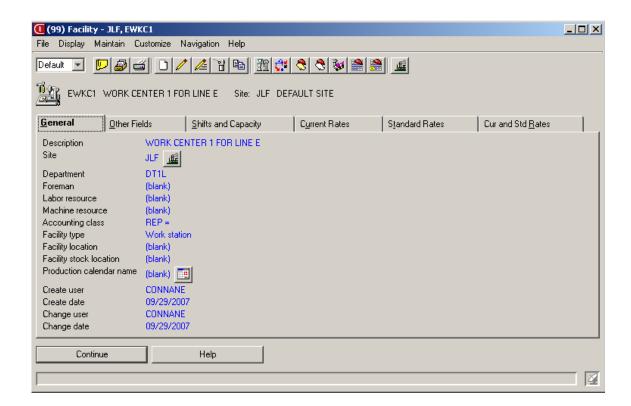
The Facilities object is available on the Production desktop if you have EPDM installed.

The Facilities list window displays a list of facilities and includes the following information:



- Facility
- Description
- Department
- Foreman
- · Labor resource
- · Machine resource
- Site
- Description
- · Facility type.

The Default card file for the Facilities object contains six cards:



Card	Displays this information
General	General information for the facility.
Other Fields	Facility information that OBPM does not show on other cards.
Shifts and Capacity	Work hours and capacity information for the facility.
Current Rates	Current costs for machines and labor.
Standard Rates	Standard costs for machines and labor.
Cur and Std Rates	Current and standard costs for machines and labor.

On the File menu, Host Print ... option on the Facilities list window or card file, you can generate the following reports:

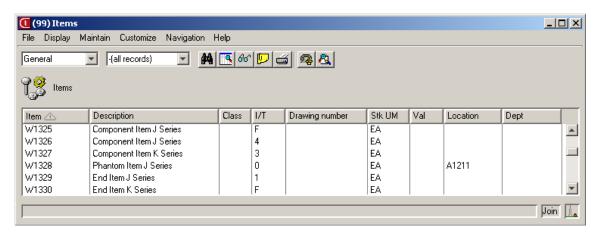
Host Print	Use this report to
Facility Master Report	Print information from the Facility Master file.
Facility Where-Used	Print information about the facility where-used.

#### **Items**



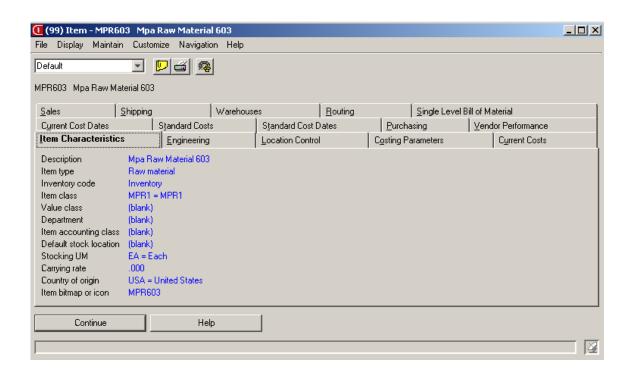
Items are components, materials, purchased parts, finished goods, and any other types of objects your company uses, manufactures, stocks, or sells to customers. You use the Items object to view, create, and maintain item records. If EPDM is installed, use the Item Revisions object to create and maintain item information.

The Items list window displays a list of items and includes the following information:



- Item
- Description
- Item class
- · Item type. Default types are:
  - 0 Phantom
  - 1 Assembly or subassembly
  - 2 Fabricated item
  - 3 Raw material
  - 4 Purchased item
  - 9 User option
  - F Feature
  - K Kit
- · Drawing number
- Stocking UM
- Value class
- Default stock location
- Department.

The Default card file for the Items object contains fifteen cards:



Card	Displays this information
Item Characteristics	Categories to which the item belongs.
Engineering	How your company assembles the item or uses the item in the assembly of another item.
Location Control	Where and how your company stores the item.
Costing Parameters	Different amounts the item adds to the total cost of the product.
Current Costs	Latest expected costs for the item.
Current Cost Dates	Dates at which the current this-level costs were last maintained.
Standard Costs	Constant costs for the year.
Standard Cost Dates	Dates at which the standard this-level costs were last maintained.
Purchasing	Purchasing details for buying the item. The information on this card is relevant for items you buy from an outside vendor instead of items you manufacture.
Vendor Performance	Vendor's effectiveness for supplying a purchased item.
Sales Compound (the tab label is Sales)	Figures used to track the sales performance of the item.
Shipping	Packing and delivery information. You can use shipping information for both items you send to customers and the items you receive from vendors.
Warehouses	Warehouses where you stock the item.

Card	Displays this information
Routing	Routing operations for the item if PDM plus is installed.
Single Bill of Material	Components at the highest-level for the selected item if PDM Plus is installed.

On the Maintain menu on the Items list window or card file, you can perform the following options if PDM Plus is installed:

Option	Use this option to
Delete Bill of Material	Delete all the product structure records for the component items associated with the bill of material for the item.
Copy Bill of Material	Copy all the product structure records for the component items on the bill of material, for the source item, to a new bill of material for the target item.
Delete Routing	Remove all the relationships among the item and the production facilities and operations used in the manufacture of the item.
Copy Routing	Copy all the relationships between production facilities and operations used in the manufacturing of the item to a new routing for the target item.

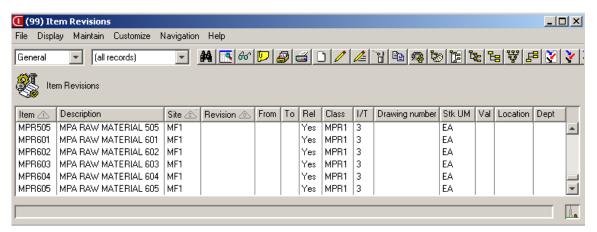
## **Item Revisions**



The items in the Item Revision Master file can have several revisions. Each revision has an effective from and effective to date range. Because a revision is part of the site item key, you can develop product costs by revision within a site. Master Production Schedule Planning (MPSP) and MRP plan orders by revision based on an order's start date, the warehouse, and the site to which the warehouse is assigned.

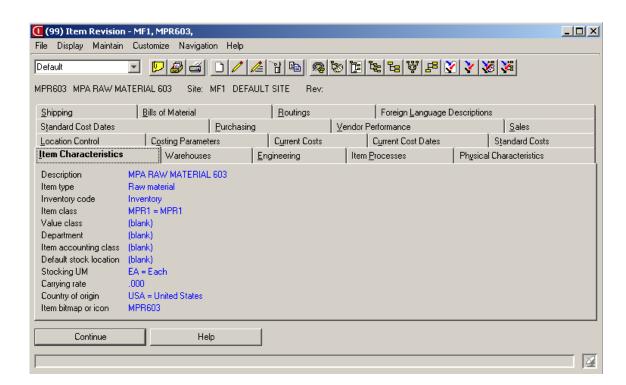
Item Revisions is available on the Production desktop if EPDM is installed.

The Item Revisions list window displays a list of item revisions and includes the following information:



- Item
- Description
- Site
- Revision
- · Effective from date
- Effective to date
- · Released to PDM
- · Item class
- · Item type
- Drawing number
- Stocking UM
- Value class
- Default stock location
- Department.

The Default card file for the Item Revisions object contains eighteen cards:



Card	Displays this information
Item Characteristics	Categories to which the item revision belongs.
Warehouses	Warehouses where you stock the item revision.
Engineering	How your company assembles the item revision or uses the item revision in the assembly of another item.
Item Processes	Item processes and related routing information for the item revision.
Physical Characteristics	Dimensions of the item.
Location Control	Where and how your company stores the item revision.
Costing Parameters	Different amounts the item revision adds to the total cost of the product.
Current Costs	Latest expected costs for the item revision.
Current Cost Dates	Dates at which the current this-level costs were last maintained.
Standard Costs	Constant costs for the year.
Standard Cost Dates	Dates at which the standard this-level costs were last maintained.
Purchasing	Purchasing details for buying the item. The information on this card is relevant for items you buy from an outside vendor instead of items you manufacture.
Vendor Performance	Vendor's effectiveness for supplying the purchased item.
Sales Compound (the tab label is Sales)	Figures used to track the sales performance of the item revision.

Card	Displays this information
Shipping	Packing and delivery information. You can use shipping information for both items you send to customers and the items you receive from vendors.
Bills of Material	Bills of material that define the component items used in manufacturing the item revision.
Routings	Routing operations used in manufacturing the item revision.
Foreign Language Descriptions	Various foreign language descriptions for the item revision.

On the Maintain menu on the Item Revisions list window or card file, you can perform the following options:

Option	Use this option to
Release	Update PDM with item revision and the associated item process information, which includes the bill of material, routing, and any facilities associated with routing operations that are part of the release.
Mass Indented Copy	Copy one or more products from one site to another. You have an option to copy all engineering records for the products to a target site, if none of the item revisions or objects already exist at the target site. If an item revision does exist, the engineering records for that object are not copied. This ensures that the data in both the source and target site are the same at the end of the mass indented copy.
Mass Release	Update PDM with item revision and the associated item process information, which includes the bill of material, routing, and any facilities associated with routing operations that are part of the release.

On the File menu, Host Print ... option on the Item Revisions list window or card file, you can generate the following reports:

- Cost Variations Current to Standard
- End-Item Where-Used
- Feature/Option Report
- Indented Bill
- Indented Cost Sheet
- Item Process Report
- Item Revision Costs
- Management Cost Summary
- Operations Cost Sheet
- Routing List
- Routing and Single Level Bill with blow thru
- Single Level Bill with blow thru
- Single Level Cost Sheet
- Single Level Where-Used
- Summarized Bill
- Work in-process Cost Worksheet.

On the File menu, Host Jobs ... option on the Item Revisions list window or card file, you can generate the following host jobs:

Host Jobs	Use this host job to
Product Costing - Both	Calculate product and component costs, based on such factors as component costs, labor, machine, and overhead for both current and standard costs. You can perform selective costing runs for an item, all new items, or all items with incomplete costs. In addition, when running costing using the Item Revisions object, you can use any subset to select the item revisions to cost.
Product Costing - Current	Calculate product and component costs, based on such factors as component costs, labor, machine, and overhead for current costs. You can perform selective costing runs for an item, all new items, or all items with incomplete costs. In addition, when running costing using the Item Revisions object, you can use any subset to select the item revisions to cost.
Product Costing - Standard	Calculate product and component costs, based on such factors as component costs, labor, machine, and overhead for standard costs. You can perform selective costing runs for an item, all new items, or all items with incomplete costs. In addition, when running costing using the Item Revisions object, you can use any subset to select the item revisions to cost.

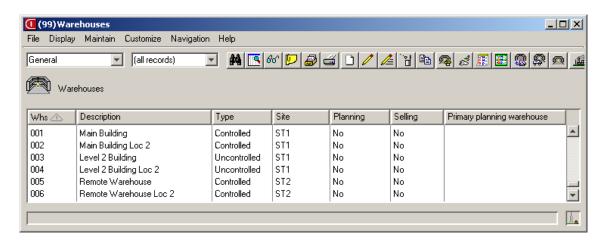
#### **Warehouses**



The Warehouses object contains information about warehouses in your system. Warehouses are facilities you use to receive and store inventory. In the Warehouses object, you can record details about warehouses or you can record details about part of a warehouse that you consider a separate warehouse. For example, when you want to control a subsection of inventory differently from the rest of the inventory in the physical warehouse, you define part of a physical warehouse as another warehouse and use locations in the defined warehouse for the separate inventory.

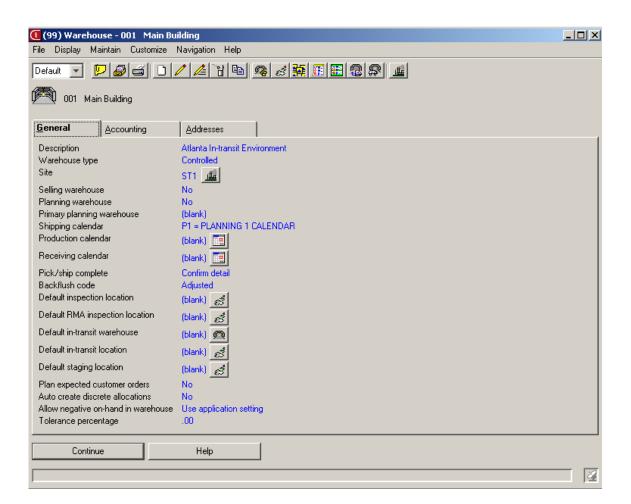
In-transit warehouses are warehouses you use to transfer inventory from one warehouse to another to show the transferred items are no longer in the sending warehouse and not yet received at the receiving warehouse. To account for the item, you specify an in-transit warehouse where the item resides, for your records, until it is actually received at the receiving warehouse.

The Warehouses list window displays the warehouses defined for your company and includes the following information:



- Warehouse
- Description
- Warehouse type (Controlled and Uncontrolled)
- Site (if EPDM is installed)
- · Planning warehouse
- Selling warehouse
- Primary planning warehouse.

The Default card file for the Warehouses object contains three cards:



Card	Displays this information
General	Warehouse information defined in the Warehouse Master file. You view the General card to see whether warehouses are planning or non-planning, selling or non-selling, and controlled or uncontrolled.
Accounting	Tax information that applies to the selected warehouse.
Addresses	Addresses defined for the selected warehouse.

On the File menu, Host Print ... option on the Warehouses list window or card file, you can generate the following reports:

Host Print	Use this report to
M.O. Transaction Register	Show all material and labor transactions, and any closeout transactions that XA performs during completing and closing orders. Transactions XA processes through IM are logged in the OBPM Order Close transaction file. PC&C transactions, such as labor complete and operations, XA writes to the OBPM Order Close transaction file.
Order Shortages	Show the materials not available to meet current release demands at order release.

On the File menu, Host Jobs ... option on the Warehouses list window or card file, you can generate the following host jobs:

Host Jobs	Use this host job to
Audit Allocation Quantities	Validate the allocation quantities or pick requirements between the Item Balance file and the Manufacturing Order Detail file. The Audit Allocation Quantities host job updates the Item Balance file to correct discrepancies found between these two files and prints any differences found.
	If COM is installed, this option accumulates the customer order allocation quantities in the Item Balance file. XA lists any item/ warehouses that are out of balance and updates the Item Balance record to agree with the Customer Order Detail records for the items.
	Schedule this option for a time when the Item Balance, Customer Order Detail, Manufacturing Order Detail, Customer Order Master, Manufacturing Order Master, and Order Release Data Entry files are not used by another task.
Audit Location Quantities	Print the Location Quantity/Item Balance report. This report compares the item quantities in the Item Balance file with the on-hand quantities in the Location Quantity file to identify any discrepancies. XA does not include rejected items and items waiting for inspection in the totals.
Audit On-order Quantities	Validate quantities on-order among the Item Balance file, Purchase Order Item Detail, and Manufacturing Order Master files. XA updates the Item Balance file to correct discrepancies among these three files and prints any differences found.
	Schedule this option for a time when the Item Balance, Purchase Order Item Detail, and Manufacturing Order Master files are not used by another task.
Cycle Count	Create sample groups of items and compare their inventory on-hand balances with the quantity found in inventory. Use the Cycle Count host job if you need to define the items you count into small groups. The Cycle Count host job has more flexibility for defining the items in your inventory count groups than the Physical Inventory host job.
Generate Reorder Recommendations	Create or refresh reorder recommendations. XA generates reorder recommendations for all order point items in a warehouse or a subset of warehouses.

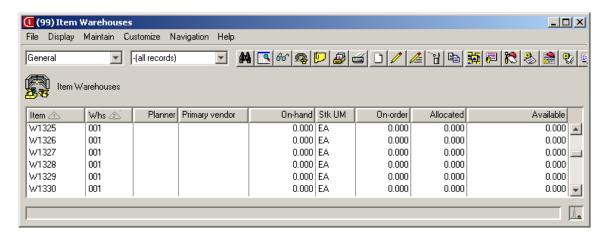
Host Jobs	Use this host job to
	The Generate Reorder Recommendations host job allows you to select whether to create replenishment orders during generation.
Physical Inventory	Count all items in all locations in the warehouse. XA creates a physical inventory for warehouses because a total physical inventory is for all items, in all locations, in the warehouse. You can select a single warehouse or multiple warehouses. If you want to specify multiple warehouses, you can supply a subset.

## **Item Warehouses**



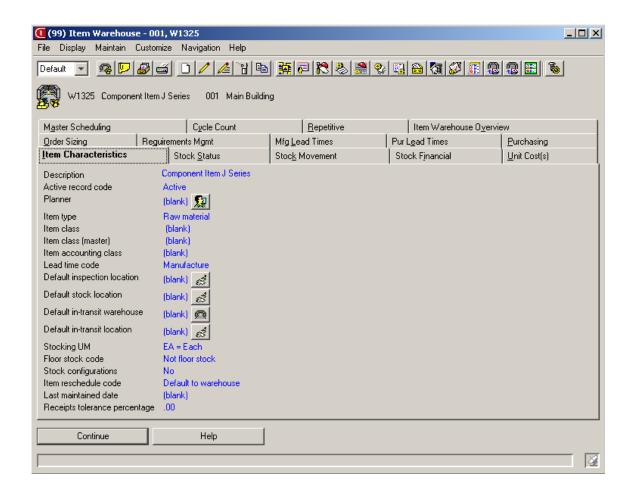
You use the Item Warehouses object to view and maintain items you stock in warehouses. The Item Warehouses object contains one record for each item number assigned to a warehouse. Each record includes data for managing inventory, such as quantity on-hand, quantity on-order, past use, and lead time.

The Item Warehouses list window displays a list of items and includes the following information:



- Item
- Warehouse
- Planner
- · Primary vendor
- · Quantity on-hand
- Stocking UM
- Total quantity on-order
- · Total quantity allocated
- · Total quantity available.





Card	Displays this information
Item Characteristics	Categories to which the item belongs.
Stock Status	Item quantities.
Stock Movement	How the stock quantity of the item has changed. It provides information for this period and for the year-to-date.
Stock Financial	Costs and sales information associated with the item. It shows information for this period and for the year-to-date.
Unit Cost(s)	Costs your company has defined for the item.
Order Sizing	Usual size of orders. This information helps you refill the item.
Requirements Mgmt	Requirements planning for the item warehouse.
Mfg Lead Times	Lead times associated with manufacturing the item.
Pur Lead Times	Lead times associated with purchasing the item.
Purchasing	Purchasing information related to buying the item and includes the vendor associated with the purchase.
Master Scheduling	Scheduling information used by the MPSP application for planning replenishments for the item.

Card	Displays this information
Cycle Count	Cycle count information for the item.
Repetitive	Repetitive information used by the Repetitive Production Management application for items manufactured on production lines.
Item Warehouse Overview	Item locations and discrete allocations for the Item/Warehouse in an indented outline.

On the Maintain menu on the Item Warehouses list window or card file, you can perform the following options:

Option	Use this option to
Create Manufacturing Order	Create manufacturing orders using item and warehouse information using selected item warehouse records.
Create Purchase Order	Create purchase orders using item and warehouse information using selected item warehouse records.
Create Requisition	Create requisitions using item and warehouse information using selected item warehouse records.
Check Component Availability	Search for available components related to the selected order.
Suspend	Prevent XA users from using the item warehouse.
Activate	Allow XA users to use the item warehouse.

On the File menu, Host Jobs  $\dots$  option on the Item Warehouses list window or card file, you can generate the following host jobs:

Host Jobs	Use this host job to
Audit Allocation Quantities	Validate the allocation quantities or pick requirements between the Item Balance file and the Manufacturing Order Detail file. The Audit Allocation Quantities updates the Item Balance file to correct discrepancies found between these two files and prints any differences found.
	If COM is installed, this option accumulates the customer order allocation quantities in the Item Balance file. XA lists any item/ warehouses that are out of balance and updates the Item Balance record to agree with the Customer Order Detail records for the items.
	Schedule this option for a time when the Item Balance, Customer Order Detail, Manufacturing Order Detail, Customer Order Master, Manufacturing Order Master, and Order Release Data Entry files are not used by another task.
Audit Location Quantities	Print the Location Quantity/Item Balance report. This report compares the item quantities in the Item Balance file with the on-hand quantities in the Location Quantity file to identify any discrepancies. XA does not include rejected items and items waiting for inspection in the totals.
Audit On-order Quantities	Validate quantities on-order among the Item Balance file, Purchase Order Item Detail, and Manufacturing Order Master files. XA updates the Item Balance file to correct discrepancies among these three files and prints any differences found.
	Schedule this option for a time when the Item Balance, Purchase Order Item Detail, and Manufacturing Order Master files are not used by another task.
Cycle Count	Create sample groups of items and compare their inventory on-hand balances with the quantity found in inventory. Use the Cycle Count host job if you need to define the items you count into small groups. The Cycle Count host job has more flexibility for defining the items in your inventory count groups than the Physical Inventory host job.

## **Planners**



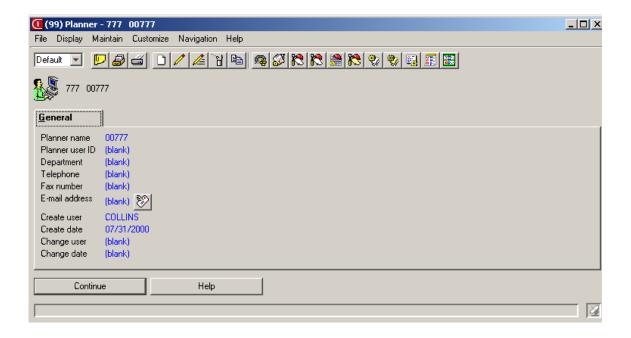
The Planners object lists planners in your company by Planner user ID and Planner name. Information about planners includes contact information, the planner's department, and the planner's XA user ID. You can use Planners to view manufacturing orders, production receipts, schedules, reorder recommendations, and items assigned to particular planners.

The Planners list window displays a list of planners and includes the following information:



- Planner
- Planner name
- Telephone
- Fax number
- Department
- Planner user ID
- · E-mail address.

The Default card file for the Planners object contains one card called General. This card displays basic contact and maintenance information about the planner.



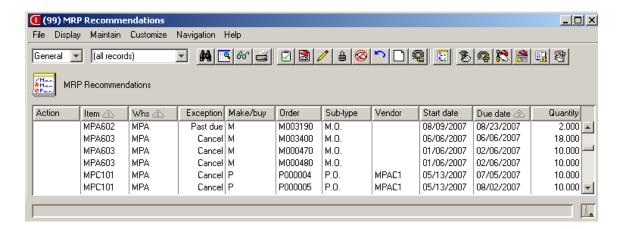
#### **MRP Recommendations**



Use MRP Recommendations to review, approve, and release orders that an MRP planning run recommends. You must have MRP installed to view recommendations generated from MRP planning runs.

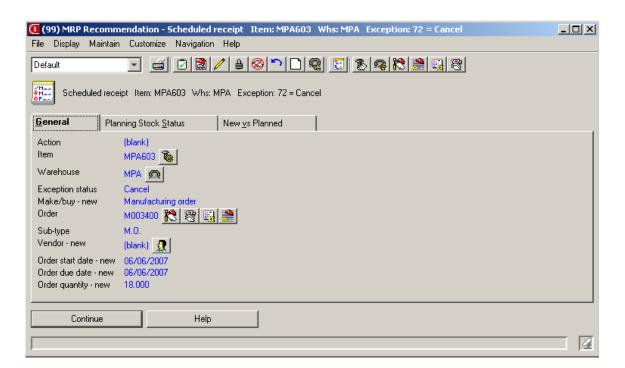
The MRP Recommendations object provides you with all the orders planned by MRP that an MRP planning run created for a warehouse. The recommended orders include all the released and firmed manufacturing, purchase orders, intersite orders, and purchase requisitions, and any planned orders with a start date on or before your MRP Review Horizon. During planning, MRP defines its recommended actions (for example, release, expedite, defer, and cancel) by assigning exceptions to orders.

The MRP Recommendations list window displays a list of recommendations for manufacturing orders and includes the following information:



- Action (derived)
- Item
- Warehouse
- · Exception status
- Make/buy new
- Order
- Sub-type
- Vendor new
- · Order start date new
- · Order due date new
- Order quantity new.

The Default card file for the MRP Recommendations object contains three cards:



Card	Displays this information
General	General information for the item, for which an MRP recommendation exists.
Planning Stock Status	Quantity information for the item, for which an MRP recommendation exists.
New vs Planned	New and planned information for the item, for which an MRP recommendation exists.

Depending on the type of order MRP recommends, details about the recommendation appear on the appropriate card and card file with information that is particular to that type of order. For example, if the MRP recommendation is for an order containing a manufactured item, the Default (M.O.) card file opens showing the Manufacture card or if the recommendation is for a purchased item, the Default (P.O.) card file opens showing the Purchase card.

On the Maintain menu on the MRP Recommendations list window, you can perform the following options:

Option	Use this option to
Accept	Accept the recommendations that an MRP planning run provided. This option is available only on records with an exception generated by the MRP planning run and with no option already taken.
Create Order	Create a manufacturing order using a recommendation that an MRP planning run provided.

Option	Use this option to
Firm	Reserve the selected planned order for a future transaction, which prevents MRP from re-planning or changing the order in the next MRP planning run. <b>Note:</b> If you want to change and firm a planned order, you can use the Change option on the Maintain menu, which firms the order. This option is available only on planned orders.
Cancel	Cancel the open manufacturing order, purchase order items, or purchase order item releases (for which receiving has not occurred) purchase requisitions, and firm planned orders. No Deferred mode is available when using this option on intersite orders.
Reset	Clear a pending option that an XA user entered using deferred mode on a record and returns the status of the record to that of the last planning run, last MRP order release, or last option an XA user processed. You can only reset recommendations with a deferred transaction status that are not processed.
Process	Perform all the required transaction processing and updates. In addition, if you want to print any reports from MRP Order Release (besides shop packets for manufacturing orders), you can use the MRP Order Release menu. You can only process recommendations with a deferred transaction status that are not processed.
Check Component Availability	Search for available components related to the selected order. The ability to check for available components helps you to consider alternatives if a particular component is not available. You can use this option to analyze interactively the availability of components for one order or a group (a subset of records, or a group of selected orders) of potential manufacturing orders. The option provides viewing capabilities by order and by component. You can view lists of all orders and components or only orders and components that are short. The option also provides 'what if' component substitutions and order quantity changes.
Mass Accept	Mass accept the orders that an MRP planning run recommended.  Note: using the Mass Accept option affects a large range of orders.
Mass Create Orders	Mass create orders. <b>Note:</b> using the Mass Create option affects a large range of orders.
Mass Firm	Mass firm planned orders. <b>Note:</b> using the Mass Firm option affects a large range of orders.
Mass Cancel	Mass cancel orders. <b>Note:</b> using the Mass Cancel option affects a large range of orders.
Mass Reset	Mass reset orders that currently have a deferred status. <b>Note:</b> using the Mass Reset option affects a large range of orders.
Mass Process	Mass process all the actions that have a status of deferred update and change the status of each of the orders to immediate update status. <b>Note:</b> using the Mass Process option affects a large range of orders.

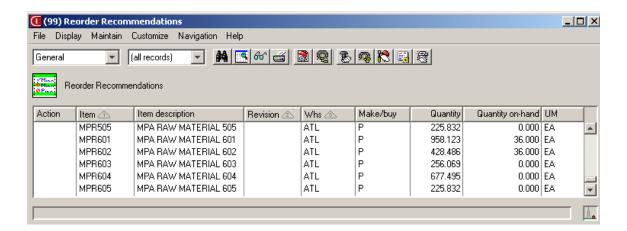
#### **Reorder Recommendations**



The Reorder Recommendations object shows items that need replenishment and the quantity that you need to reorder. You generate reorder recommendations for warehouses in the Manufacturing Orders or Warehouses object. Depending on the other applications you have installed, OBPM generates recommendations for manufacturing orders, intersite orders, requisitions, and purchase orders.

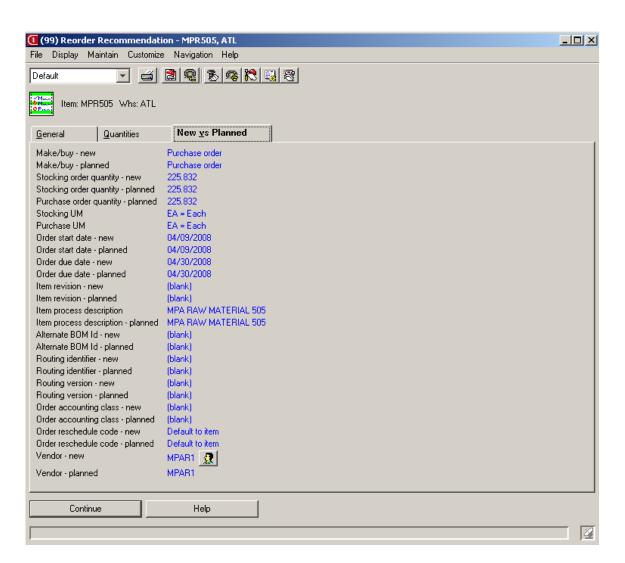
After you generate reorder recommendations, you use Reorder Recommendations to view recommendations, check component availability, and create orders.

The Reorder Recommendations list window displays a list of reorder recommendations for items and includes the following information:



- Completion code
- Item
- · Item description
- Item revision new
- Warehouse
- · Make/buy new
- · Stocking order quantity new
- Quantity on-hand
- · Stocking UM.





Card	Displays this information
General	General information for the reorder recommendation for the order point item.
Quantities	Stocking information for the reorder recommendation.
New vs Planned	New and planned information about the reorder recommendation for the order point item.

Depending on the type of order Reorder Recommendations recommended, details about the recommendation appear on the appropriate card file and card with information that is particular to that type of order. For example, if the reorder recommendation is for an order containing a manufactured item, the Default (M.O.) card file opens showing the Manufacture card or if the recommendation is for a purchased item, the Default (Open) card file opens showing the New vs Planned card.

On the Maintain menu on the Reorder Recommendations list window or card file, you can perform the following options:

Option	Use this option to
Create Order	Create a manufacturing, purchase, requisition, or intersite order using a reorder recommendation. If you create an order using a reorder recommendation, the item type is set to the type of item planned by the recommendation.
Check Component Availability	Search for available components related to the selected order. The ability to check for available components helps you to consider alternatives if a particular component is not available. You can use this option to analyze interactively the availability of components for one order or a group (a subset of records, or a group of selected orders) of potential manufacturing orders. The option provides viewing capabilities by order and by component. You can view lists of all orders and components or only orders and components that are short. The option also provides 'what if' component substitutions and order quantity changes.
Mass Create Orders	Mass create orders. <b>Note:</b> using the Mass Create option affects a large range of orders.

On the File menu, Host Jobs  $\dots$  option on the Reorder Recommendations list window or card file, you can generate the following host job:

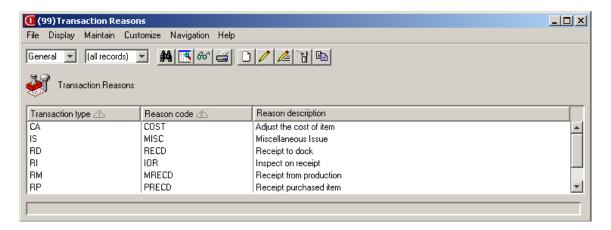
Host Jobs	Use this host job to
Generate Reorder Recommendations	Create or refresh reorder recommendations. OBPM generates reorder recommendations for all order point items in a warehouse or a subset of warehouses.  The options for this host job allow you to select whether to create replenishment orders during generation.

## **Transaction Reasons**



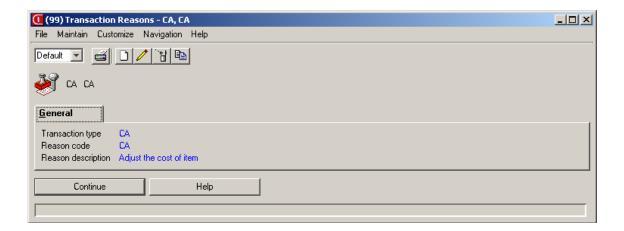
The Transaction Reasons object helps you define reason codes for inventory transaction types. If your company defines one or more reason codes for a transaction type, you can select only the defined reason codes for that inventory transaction. If your company has not defined any reason codes, you can enter a code of your own.

The Transaction Reasons list window displays a list of reason codes for transactions and includes the following information:



- Transaction type
- Reason code
- · Reason description.

The Default card file for the Transaction Reasons object contains one card called General. This card displays information about the transaction reason.



#### **Sources of Demand**

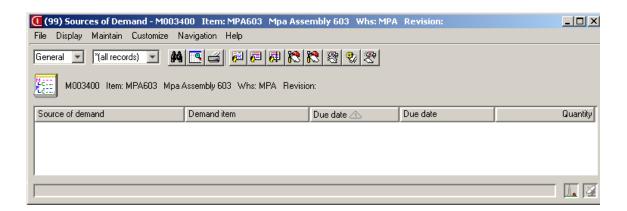


The Sources of Demand object shows you all the sources of demand for the selected item on a requisition, material order, customer order, or purchase order that were calculated during the last MRP planning run. Source of Demand tracking must be enabled for the planning warehouse in the MRP application. The Sources of Demand list window shows the top-level requirement that generated the request for the item.

You can use source of demand information to find the person or group that is waiting for the ordered item. This information is helpful to inform the person or group of changes to the shipment or delivery of the ordered item.

The Sources of Demand object is a lower-level object of Manufacturing Orders, M.O. Components, Customer Demand, MRP Recommendations, and Schedules. You can view the Sources of Demand list window by selecting the Sources of Demand option on the Display menu on list windows and card files of these objects.

The Sources of Demand list window displays a list of sources of demand for an item associated with a manufacturing order, M.O. component, customer demand, MRP recommendation, or schedule and includes the following information:



- Source of demand (formatted)
- Demand item
- · Component requirement due date
- · Requirement due date
- · Requirement quantity.

The Sources of Demand object has no card file.

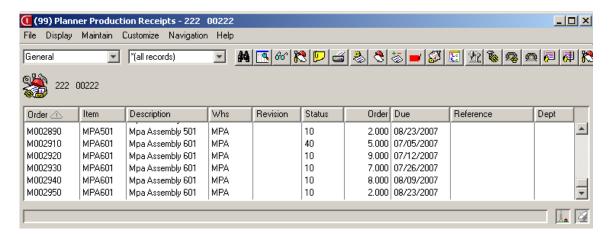
# **Production Receipts**



The Production Receipts object shows scheduled production receipt information for Items, Item Revisions, Item Warehouses, and Planners.

The Production Receipts object is a lower-level object of Items, Item Revisions, Item Warehouses, or Planners. You can view the Production Receipts list window by selecting the Production Receipts option on the Display menu on the list windows and card files for these objects.

The Production Receipts list window displays a list of production receipts and includes the following information:



- Order
- Item
- · Item description
- · Item warehouse
- Item revision
- Order status
- · Original order quantity
- Due date
- Reference
- Planner
- Department.

The Production Receipts object has no card file. If you double-click a line in the Production Receipts list window, you see the card file for the item, item revision, item warehouse, or planner for the selected production receipt.

On the File menu, Host Print ... option on the Production Receipts list window or card file, you can generate the following reports:

Host Print	Use this report to
Item Shortage	Show insufficient material to meet current release demand for an item at order release.
Order Shortage	Show insufficient material to meet current release demand for orders at order release.

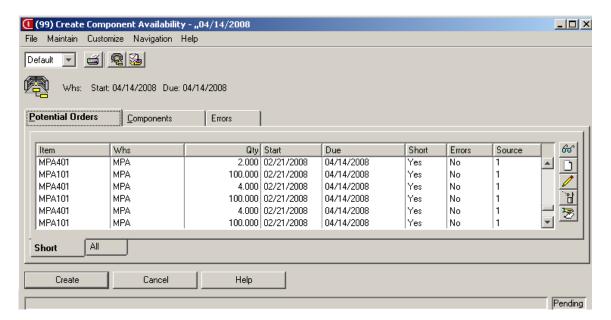
## **Component Availability: Potential Orders**



You use the Component Availability: Potential Orders object to view an analysis of all the potential manufacturing orders. You can view all orders or only orders for which a shortage exists.

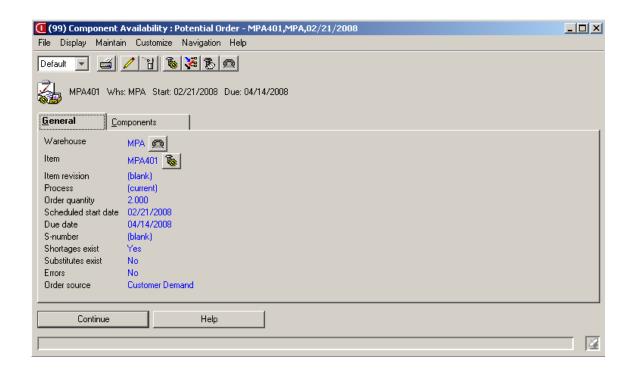
You access the Component Availability: Potential Orders object in Customer Demand, Item Warehouses, MRP Recommendations, or Reorder Recommendations. You select the Check Component Availability on the Maintain menu of these objects. On the Create Component Availability card file, you can see the Component Availability: Potential Orders list card.

The Component Availability: Potential Orders list card displays a list of components on potential manufacturing orders and includes the following information:



- Item
- Warehouse
- Order quantity
- · Scheduled start date
- · Due date
- Shortages exist
- Errors
- · Order source.

The Default card file for the Component Availability: Potential Orders object contains two cards:



Card	Displays this information
General	General information for a potential order. The General card shows item revision and process information, if EPDM is installed.
Components	Components tied to orders or components for which there is a shortage.

On the Maintain menu on the Component Availability: Potential Order card file, you can perform the following option:

Option	Use this option to
Create Manufacturing Order(s)	Create manufacturing orders using a component availability: potential order.

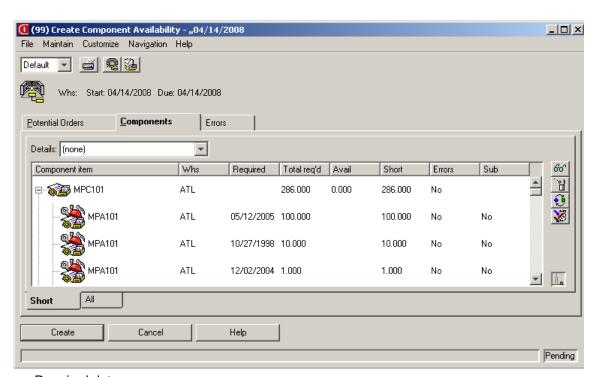
### **Component Availability: Components**



You use the Component Availability: Components object to view an analysis of all the required components for potential orders. You can view all components or only components for which there is a shortage. OBPM calculates component shortages by comparing the total quantity of components required for all the selected potential manufacturing orders against available components. If MRP is installed, you can consider future allocations of components as available when calculating shortages. Future allocations are those that are required beyond the time phased allocation fence established in MRP for the item.

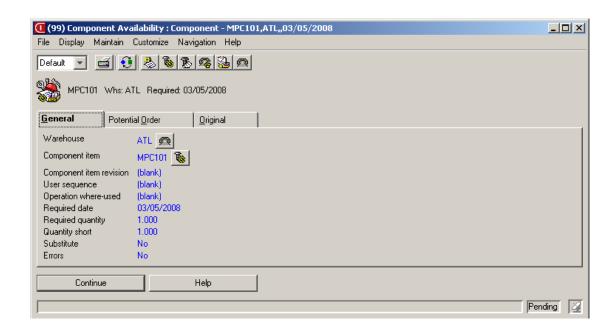
You access the Component Availability: Components object in Customer Demand, Item Warehouses, MRP Recommendations, or Reorder Recommendations. You select the Check Component Availability on the Maintain menu of these objects. On the Create Component Availability card file, select the Components card to see the Component Availability: Components overview card. This card contains Component Availability: Summarized Components and Component Availability: Components information in an indented outline. Double-click the Component Availability: Component card file.

The Component Availability: Component overview card displays a list of components for an item that you might need to manufacture and includes the following information:



- Required date
- Required quantity
- Quantity short
- Item
- Warehouse
- · Scheduled start date
- Due date
- Errors
- Substitute
- Order source.

The Default card file for the Component Availability: Components object contains three cards:



Card	Order review and item, revision, process, and component quantity information for a potential order. The General card shows item revision information, if EPDM is installed.	
General		
Potential Order	Potential orders associated with the component.	
Original	Original warehouse, component item, and component item revision used information. These attributes are blank until an item is substituted for a component used on the potential order. This card shows the original warehouse, item, and revision information after one or more item substitutions. The Original card shows item revision information, if EPDM is installed.	

On the Maintain menu on the Component Availability: Component card file, you can perform the following option:

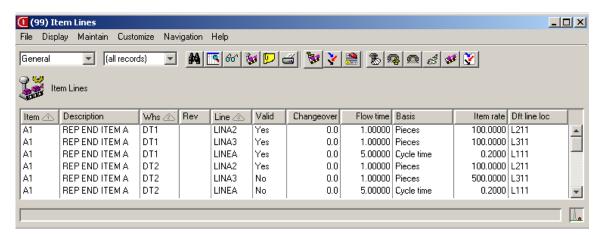
Option	Use this option to	
Substitute item	Substitute one component for another in your components list for a potential order. For this planning activity, you can substitute available components for components that are short and recheck component availability before creating a manufacturing order. You can use this option to substitute a component for a single order when working with components on the Components card. You can substitute components for all orders when viewing summarized components.	

### **Item Lines**



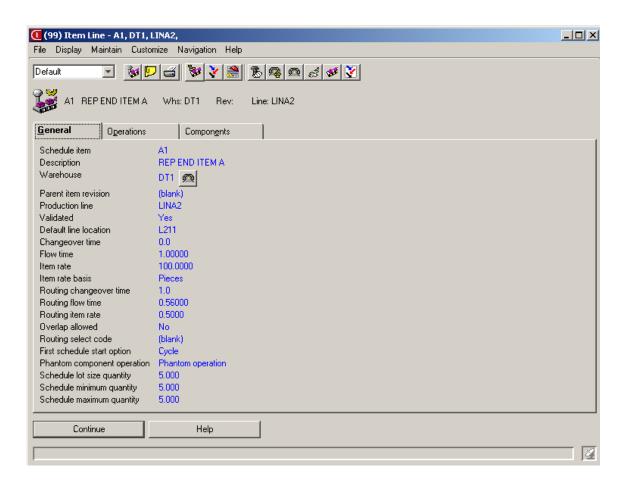
The Item Lines object contains definition, flow, and rate information related to schedule items made on a specific production line.

The Item Lines list window displays a list of scheduled items on a production line and includes the following information:



- Schedule item
- Description
- Warehouse
- Parent item revision
- Production line
- Validated
- Changeover time
- Flow time
- Item rate basis
- Item rate
- Default line location.

The Default card file for the Item Lines object contains three cards:



Card	Displays this information	
General	General information for the item line. This card is applicable if EPDM is installed.	
Operations	Routing operations associated with the selected item. This card is applicable if EPDM is installed.	
Components	Components associated with the selected item.	

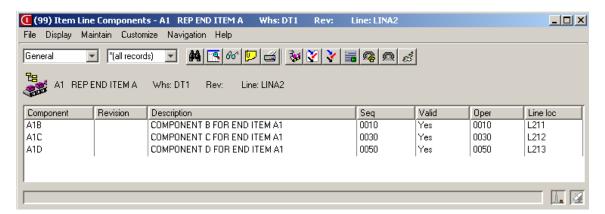
### **Item Line Components**



The Item Line Components object contains a list of all the components for the associated schedule item.

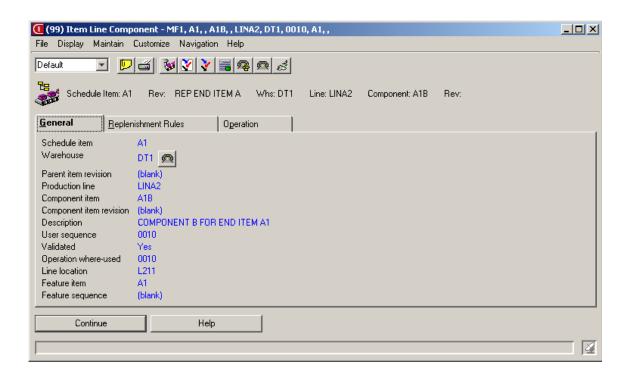
The Item Line Components object is a lower-level object of Item Lines. You can view the Item Line Components list window by selecting the Item Line Components option on the Display menu on the Item Lines list window or card file. You can also view item line components by selecting the Components card in the Item Line Default card file.

The Item Line Components list window displays a list of components for a schedule item and includes the following information:



- Schedule item
- Warehouse
- Parent item revision
- Production line
- Component item
- Component item revision
- Description
- User sequence
- Validated
- · Operation where-used
- Line location.

The Default card file for the Item Line Components object contains three cards:



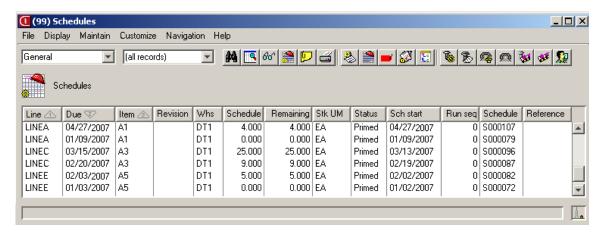
Card	Displays this information	
General	General information for the item line component.	
Replenishment Rules	Replenishment rules established for the item line component.	
Operation	Routing operation information for the item line component.	
· ·		

### **Schedules**



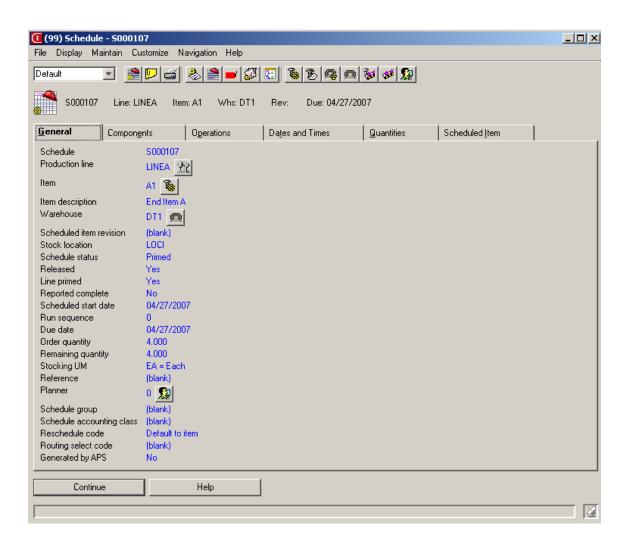
The Schedules object contains information related to all schedules.

The Schedules list window displays a list of schedules and includes the following information:



- Production line
- Due date
- · Scheduled item
- · Scheduled item revision
- Scheduled item warehouse
- Schedule quantity
- Remaining quantity (calculated)
- Stocking UM
- Schedule status
- · Scheduled start date
- Run sequence
- Schedule
- Reference.

The Default card file for the Schedules object contains six cards:



Card	Displays this information	
General	General information for the schedule.	
Components	Components associated with the item on the selected schedule.	
Operations	Routing operations associated with the selected schedule.	
Dates and Times	Date and time information for the schedule.	
Quantities	Quantity information for the schedule.	
Scheduled Item	Item information for the item associated with the schedule.	

On the File menu, Host Print  $\dots$  option on the Schedules list window or card file, you can generate the following reports:

Host Print	Use this report to	
Item Shortage	Item ShortageShow insufficient material to meet current release demand for an item at order release.	
Order Shortage	Item ShortageShow insufficient material to meet current release demand for orders at order release.	

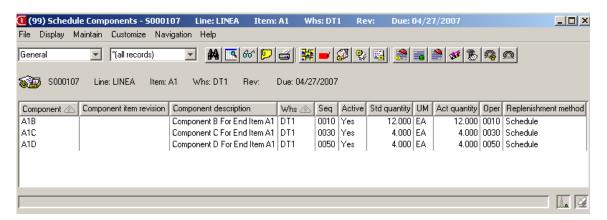
## **Schedule Components**



The Schedule Components object contains a list of all the components for the associated parent item on the selected schedule.

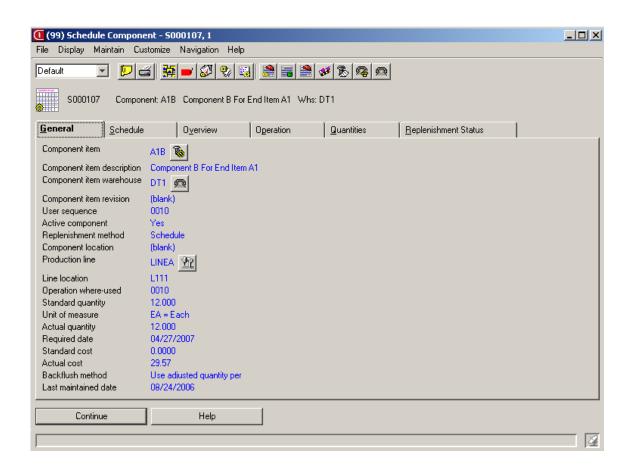
The Schedule Components object is a lower-level object of Schedules. You can view the Schedule Components list window by selecting the Schedule Components option on the Display menu on the Schedules list window or card file. You can also view schedule components by selecting the Components card in the Schedule or Schedule Operation Default card file.

The Schedule Components list window displays a list of components for an item on a schedule and includes the following information:



- Schedule
- Production line
- · Scheduled item
- Scheduled item revision
- · Component item
- · Component item revision
- Component item description
- Component item warehouse
- User sequence
- Active component
- Standard quantity
- Unit of measure
- Actual quantity
- · Operation where-used
- · Replenishment method.

The Default card file for the Schedule Components object contains six cards:



Card	Displays this information	
General	General information for the schedule component.	
Schedule	Schedule information for the schedule component.	
Overview	Schedule component, component line replenishments, and discrete allocations in an indented outline.	
Operation	Schedule operation information for the schedule component.	
Quantities	Quantity information for the schedule component.	
Replenishment Status	Line replenishment statuses associated with the selected schedule component.	

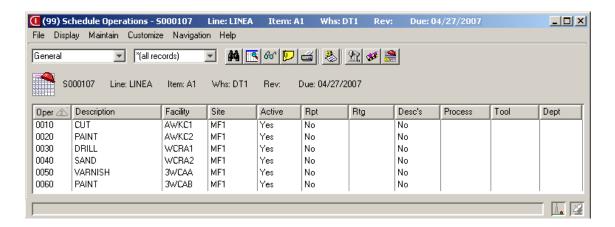
## **Schedule Operations**



The Schedule Operations object contains a list of all operations related to the associated item on the selected schedule.

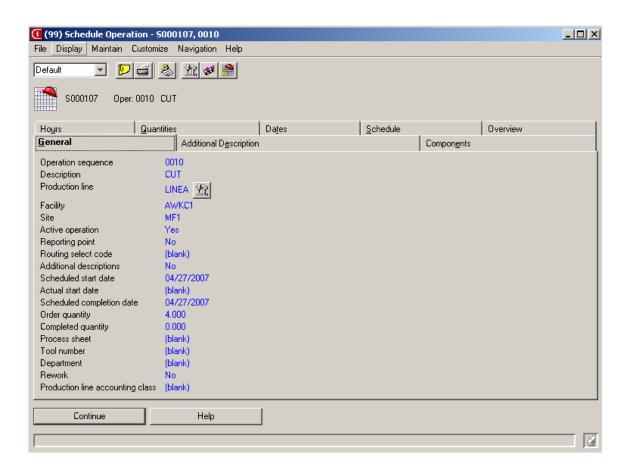
The Schedule Operations object is a lower-level object of Schedules. You can view the Schedule Operations list window by selecting the Schedule Operations option on the Display menu on the Schedules list window or card file. You can also view schedule operations by selecting the Components card in the Schedule Default card file.

The Schedule Operations list window displays a list of operations for an item on a schedule and includes the following information:



- Schedule
- · Operation sequence
- Description
- Facility
- Site (applicable if EPDM is installed)
- Active operation
- Reporting point
- Routing select code
- Additional descriptions (derived)
- Process sheet
- Tool number
- · Department.

The Default card file for the Schedule Operations object contains eight cards:



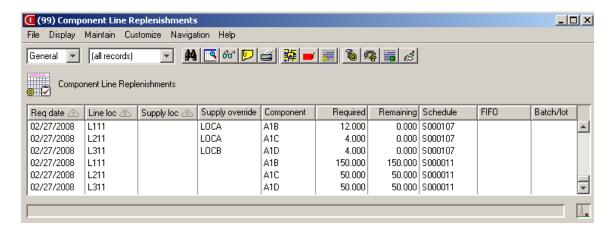
Card	Displays this information	
General	General information for the schedule operation.	
Additional Description	Additional routing description information, if any exists, for the selected routing operation.	
Components	Components associated with the operation on the selected schedule.	
Hours	Hour information for the schedule operation.	
Quantities	Quantity information for the schedule operation.	
Dates	Date information for the schedule operation.	
Schedule	Schedule information for the schedule operation.	
Overview	Schedule operation, schedule components, component line replenishments, and discrete allocations in an indented outline.	

## **Component Line Replenishments**



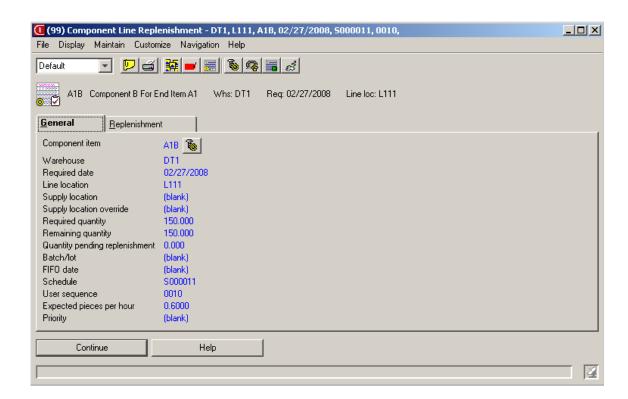
The Component Line Replenishments object contains information related to the replenishment of components at the production line.

The Component Line Replenishments list window displays a list of components on the production line that need replenishment and includes the following information:



- · Required date
- Line location
- Supply location
- Supply location override
- Component item
- Required quantity
- Remaining quantity
- Schedule
- · FIFO date
- Batch/lot.

The Default card file for the Component Line Replenishments object contains two cards:



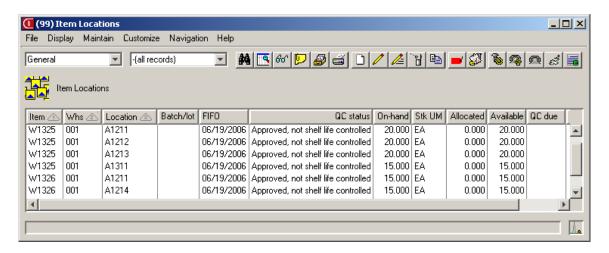
Card	Displays this information	
General	General information for the component line replenishment.	
Replenishment	Quantity information related to replenishing the component at the production line.	

#### **Item Locations**



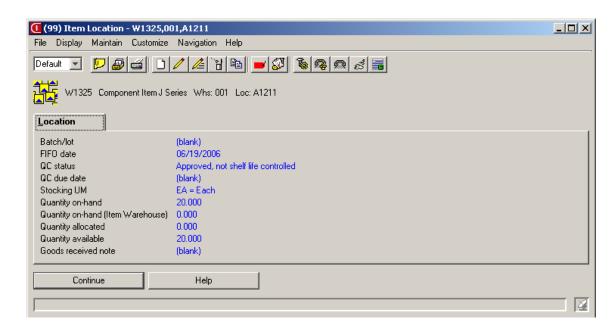
You use the Item Locations object in controlled warehouses to store information about the locations for selected items. It shows all the locations in all the warehouses where quantities of the item are in inventory.

The Item Locations list window displays a list of items and includes the following information:



- Item
- Warehouse
- Location
- Batch/lot
- FIFO date
- QC status
- Quantity on-hand
- Stocking UM
- · Quantity allocated
- · Quantity available
- QC due date
- · Goods received note.

The Default card file for Item Locations contains one card called Location. This card displays Batch/lot and FIFO data options, selected during application tailoring.



On the File menu, Host Jobs ... option on the Item Locations list window or card file, you can generate the following host job:

Host Jobs	Use this host job to		
Cycle Count	Create sample groups of items and compare their inventory on-hand balances with the quantity found in inventory. Use the Cycle Count host job if you need to define the items you count into small groups. The Cycle Count host job has more flexibility for defining the items in your inventory count groups than the Physical Inventory host job.		

### **Information flow**

OBPM information flow is driven by the creation and processing of manufacturing orders, including the following manufacturing order tasks:

- Monitor demand for manufacturing ordersCreate manufacturing orders
- Add bill of materials, routings, and milestones
- Print shop packets
- Generate worklists
- Close and purge manufacturing orders.

Step	Application	Object
1. Monitor demand		
Generate or update reorder recommendations for warehouses.	OBPM	In Reorder Recommendations, use the Generate Reorder Recommendations host job to create or update the Order Point Review file.
Check component availability.	ОВРМ	In MRP Recommendations, use the Check Component Availability option to check for component shortages.
	ОВРМ	In Reorder Recommendations, use the Check Component Availability option to check for component shortages.
	ОВРМ	In Customer Demand, use the Check Component Availability option to check for component shortages.
	OBPM, RBPM, EPDM, MM, PDM Plus	In Item Warehouses, use the Check Component Availability option to check for component shortages.
Identify potential manufacturing orders.	ОВРМ	In Reorder Recommendations, use the Reorder Recommendations list window to identify potential manufacturing orders.
	ОВРМ	In MRP Recommendations, use the MRP Recommendations list window to identify potential manufacturing orders.
	ОВРМ	In Customer Demand, use the Customer Demand list window to identify potential manufacturing orders.
Print Item Shortage reports.	ОВРМ	In Manufacturing Orders, use the Item Shortage host report to print shortages for items used on manufacturing orders.
	RBPM	In Schedules, use the Item Shortage host report to print shortages for items used on schedules.
	OBPM, RBPM, EPDM, MM, PDM Plus	In Production Receipts, use the Item Shortage host report to print shortages for items used on production receipts.

Step	Application	Object
Print Order Shortage reports.	OBPM	In Manufacturing Orders, use the Order Shortage host report to print shortages for orders.
	RBPM	In Schedules, use the Order Shortage host report to print shortages for production schedules.
	OBPM, RBPM, MM, PDM Plus	In Warehouses, use the Order Shortages host report to print shortages for orders in warehouses.
	OBPM, RBPM, EPDM, MM, PDM Plus	In Production Receipts, use the Item Shortage host report to print shortages for production receipts.
2. Create manufacturing orders		
Create manufacturing order.	ОВРМ	In Manufacturing Orders, use the Create or Copy option to create a single manufacturing order.
Use reorder recommendations.	ОВРМ	In Reorder Recommendations, use the Create Order option to create a manufacturing order using a reorder recommendation or the Mass Create Orders option to create two or more orders using multiple reorder recommendations.
	OBPM	In Reorder Recommendations, use the Generate Reorder Recommendations host job to create one or more manufacturing orders using reorder recommendations.
	OBPM, RBPM, MM, PDM Plus	In Warehouses, use the Generate Reorder Recommendations host job to create one or more manufacturing orders using reorder recommendations.
Use MRP recommendations.	ОВРМ	In MRP Recommendations, use the Create Order option to create a manufacturing order using an MRP recommendation or the Mass Create Orders option to create two or more orders using multiple MRP recommendations.
Use customer demand.	ОВРМ	In Customer Demand, use the Create M.O. option to create a manufacturing order using a customer demand or the Mass Create M.O. option to create two or more orders using multiple customer demand records.
Use item warehouses.	OBPM, RBPM, MM, PDM Plus	In Item Warehouses, use the Create Manufacturing Order option to create a manufacturing order using an item warehouse.
Use component availability: potential orders.	OBPM, RBPM, MM, PDM Plus	In Component Availability: Potential Order, use the Create Manufacturing Order(s) option to create one or more manufacturing orders using potential orders.

Step	Application	Object		
3. Maintain manufacturing orders				
Import bills of material.	OBPM	In Manufacturing Orders, use the Import Bill of Material option to import a bill of material into an existing manufacturing order that has no components.		
Import routings.	OBPM	In Manufacturing Orders, use the Import Routing option to import a routing into an existing manufacturing order that has no routing operations.		
Create milestones.	ОВРМ	In M.O. Operations, use the Create Milestone option to create a milestone group for the manufacturing order.		
Delete milestones.	ОВРМ	In M.O. Operations, use the Delete Milestone option to delete a milestone group from the manufacturing order.		
Print shop packets.	OBPM	In Manufacturing Orders, use the Shop Packet host report to print worksheets, pick lists, labor tickets, and receiving tickets for an existing manufacturing order.		
Generate work lists.	ОВРМ	In Manufacturing Orders, use the Generate Work List host job to create work lists.		
	EPDM	In Sites, use the Generate Work List host job to create work lists for sites.		
Cancel manufacturing orders.	OBPM	In Manufacturing Orders, use the Cancel option to prevent XA users processing any transactions for the manufacturing order.		
Activate manufacturing orders.	ОВРМ	In Manufacturing Orders, use the Activate option to reactivate a manufacturing order that is canceled (Order status 99 - Cancelled) or return an order to Order status 40 - Started.		
Reopen manufacturing orders.	ОВРМ	In Manufacturing Orders, use the Reopen option to open a closed manufacturing order.		
4. Complete manufacturing orders				
Complete labor.	ОВРМ	In Manufacturing Orders, use the Labor Complete option to indicate the labor is complete for the manufacturing order.		
Receive material.	ОВРМ	In Manufacturing Orders, use the Receipt of Material option to indicate the material is received for the manufacturing order.		
Complete material.	ОВРМ	In Manufacturing Orders, use the Material Complete option to indicate the material is complete for the manufacturing order.		

Step		Application	Object
5.	Close orders		
	Normal close.	ОВРМ	In Manufacturing Orders, use the Normal Close option to close out a manufacturing order with status 55 - Complete.
	Force close.	ОВРМ	In Manufacturing Orders, use the Force Close option to close out a manufacturing order without completing material or labor.
6.	Print register		
	Print register of complete and order close transactions.	OBPM, RBPM, MM, PDM Plus	In Warehouses, use the M.O. Transaction Register host report to print all material and labor transactions, and any closeout transactions that XA performed during completing and closing of the manufacturing order(s).
7.	Purge manufacturing orders		
	Close out and purge.	IM, PC&C	Use IM or PC&C to run manufacturing orders closeout and purge.
8.	Create orders		
	Requisitions.	ОВРМ	In Reorder Recommendations, use the Create Order and Mass Create Orders options to create requisitions.
		OBPM	In Reorder Recommendations, use the Generate Reorder Recommendations host job to create requisitions.
		ОВРМ	In MRP Recommendations, use the Create Order and Mass Create Orders options to create requisitions.
		PM	Use PM to create requisitions.
	Purchase orders.	OBPM	In Reorder Recommendations, use the Create Order and Mass Create Orders options to create purchase orders.
		ОВРМ	In Reorder Recommendations, use the Generate Reorder Recommendations host job to create purchase orders.
		ОВРМ	In MRP Recommendations, use the Create Order and Mass Create Orders options to create purchase orders.
		PM	Use PM to create purchase orders.
	Intersite orders.	OBPM	In Reorder Recommendations, use the Create Order and Mass Create Orders options to create intersite orders.
		OBPM	In Reorder Recommendations, use the Generate Reorder Recommendations host job to create intersite orders.
		ОВРМ	In MRP Recommendations, use the Create Order and Mass Create Orders options to create intersite orders.

# **Order-Based Production Management security**

OBPM establishes security at the object level. The security you set up can be different for each of the OBPM objects depending on your company's needs. For information about setting up security, see the *Browser Concepts Guide* and the *Cross Application Support User's Guide*.

# Chapter 2. Monitoring Demand for Manufacturing Orders

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Checking components	
Checking errors and transaction status	
Creating potential orders	

#### **Overview**

You use manufacturing orders to refill inventory and meet customer demand. The Order-Based Production Management (OBPM) application helps you decide what manufacturing orders you need to create and then streamlines the tasks you use when creating manufacturing orders and processing and closing those orders. This chapter describes the process of monitoring the demand for items for which you need to create manufacturing orders and how to check the availability of the components you need for potential manufacturing orders.

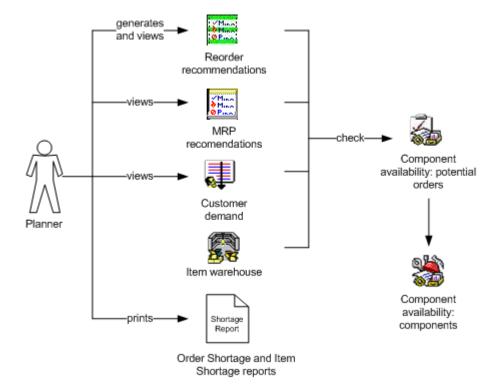


Figure 2-1. Overview of monitoring demand for manufactured materials

Figure 2-1, "Overview of monitoring demand for manufactured materials," on page 2-1 shows five ways you can check your company's demand for manufactured materials and the reports and objects from which you can check the availability of components.

**Reorder Recommendations.** Reorder recommendations advise you about items in a warehouse with a quantity available below its reorder point. Use this object to generate and view reorder recommendations, check you have the components required for potential manufacturing orders, and create one or more manufacturing orders based on reorder recommendations.

**MRP Recommendations.** Material Requirements Planning (MRP) makes recommendations for items to manufacture based on all the planned orders created for a warehouse during an MRP planning run. Use this object to view MRP recommendations, check you have the components required for potential manufacturing orders, and create one or more manufacturing orders based on MRP recommendations. MRP must be installed for you to use this object.

**Customer Demand.** In this object, you can view selected line item releases for your customer orders, check you have the components required for potential manufacturing orders, and create one or more manufacturing orders based on the customer orders. Customer Order Management (COM) must be installed for you to use this object.

*Order Shortage report.* This report shows the materials not available to meet current release demand for an order or group of orders at order release. This report is available in Manufacturing Orders, Warehouses, Schedules, and Production Receipts.

*Item Shortage report.* This report shows the materials not available to meet current release demand at order release. This report is available in Manufacturing Orders, Schedules, and Production Receipts.

*Item Warehouses.* Use this object to check you have the components required for a potential manufacturing order and create manufacturing orders based on item warehouses.

**Check Component Availability option.** Check for component availability using this option on the Maintain menu in Reorder Recommendations, MRP Recommendations, Customer Demand, and Item Warehouses. This option opens the Create Component Availability card file, which contains potential orders and components based on records in the object you selected.

**Component Availability: Potential Orders.** In this object, you view an analysis of all the potential manufacturing orders. You can view all orders or only orders for which a shortage exists. You can also create manufacturing orders using the potential manufacturing orders.

**Component Availability: Components.** In this object, you view an analysis of all the required components for potential orders. You can view all components or only components for which there is a shortage. OBPM calculates component shortages by comparing the total quantity required of a component on all the selected potential manufacturing orders against available inventory for the component. If MRP is installed, you can consider future allocations of components as available when calculating shortages.

Using Component Availability: Components, you can substitute available components for components that are short and recheck component availability before creating the manufacturing order.

### **Generating reorder recommendations**

The Reorder Recommendations object shows items that need replenishment, the quantity that you need to reorder and, depending on the applications you installed, all the information required to release a manufacturing order, purchase order, purchase requisition, or intersite order. Before viewing this information, use the Generate Reorder Recommendations host job in Reorder Recommendations or Warehouses to update the Reorder Recommendations list window with all the order point items requiring replenishment.

OBPM determines which item warehouses require replenishment based on several conditions:

- An item warehouse qualifies as a reorder item if the item warehouse has an Order policy code of B - Order point, order quantity or C - Order point, order up to level.
- XA considers all item warehouse records reorder items if IM is not interfacing with MRP.
- The Available quantity is below the quantity of the Order point for the item warehouse.

OBPM uses the Fixed order quantity attribute in Item Warehouses to find the number of units in a warehouse to refill. If no Fixed order quantity is entered for the item warehouse, the Economic order quantity in Reorder Recommendations is calculated and used as the replenishment quantity.

**Note:** Economic order quantity is set to zero if any of the following factors is equal to zero:

- Inventory carrying rate (IM tailoring question I037)
- Estimated average annual usage
- Last unit cost in ITEMBL file and Unit cost default
- Estimated cost of placing an order (IM tailoring question 1039).

The following procedure assumes you want to generate reorder recommendations for a subset of warehouses. In Warehouses, select the subset that represents the warehouses for which you want to generate reorder recommendations. You can generate reorder recommendations for all warehouses or limit the list of warehouses to only the warehouses you want.

Select the Host Jobs ... option on the File menu. The Warehouse Host Jobs window opens. Select the Generate Recommendations tab and the Execute attribute.

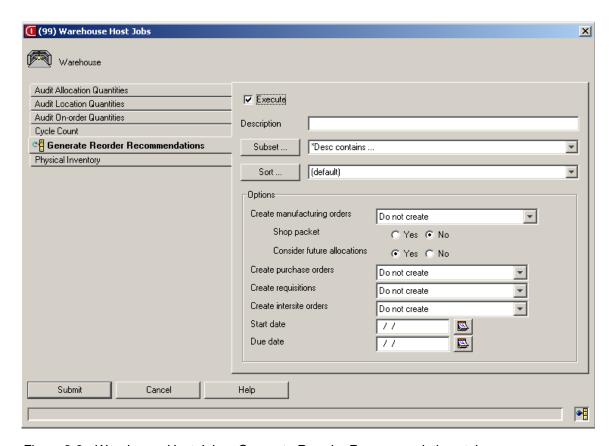


Figure 2-2. Warehouse Host Jobs - Generate Reorder Recommendations tab

Choose options in the Options group box to specify whether OBPM creates orders during generation:

- If you want shop packets to print when you create the orders, select this option.
- If MRP is installed, you can choose to consider future allocations as available when OBPM checks component availability for an order. Future allocations are components required outside the item's lead time or after an allocation time fence (designated in MRP).
- If you leave the date attributes blank, OBPM uses the current date as the order start date, and calculates the order due date using the item lead time.

After you select the options for the job, click Submit. A Confirmation prompt opens.

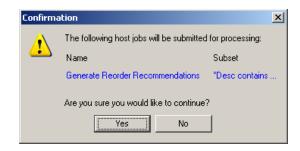


Figure 2-3. Confirmation Generate Recommendation prompt

Click Yes to generate reorder recommendations.

After you generate reorder recommendations, the Reorder Recommendations list window shows the new reorder recommendations by the attributes: Item, Item description, Warehouse, and Make/buy - new.

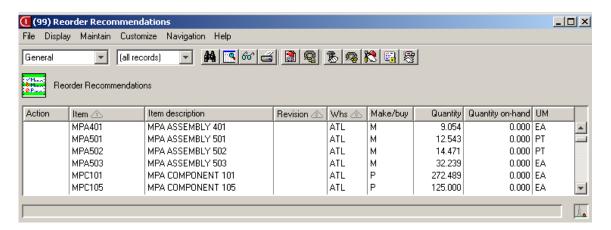


Figure 2-4. Reorder Recommendations list window after Generate Reorder Recommendations

### **Monitoring demand**

Use the Reorder Recommendations, MRP Recommendations, and Customer Demand objects to view items for potential manufacturing orders. After you identify the items you require, use the methods explained in Chapter 3, "Creating Manufacturing Orders" to create the manufacturing orders.

### Monitoring reorder recommendations

Use Reorder Recommendations to view details about each reorder recommendation and related information for the warehouses, bills of material, and items associated with the record. Use the Reorder Recommendation preferences, list window, views, and subsets to help you view demand.

**Reorder Recommendation Card File Preferences.** Depending on the applications you installed; XA generates reorder recommendations for manufacturing orders, purchase orders, requisitions, and intersite orders. Each recommendation in Reorder Recommendations contains specific information that applies to the order type, therefore, OBPM displays them on a different card.

Set your preferences for Reorder Recommendation card files using the Preferences ... option on the Customize menu. Select the Card File card and then the order type using one of the following tabs at the bottom of the card:

- Open
- Manufacturing
- Purchase
- Requisition
- Intersite.

In Figure 2-5, the Manufacturing tab is selected.

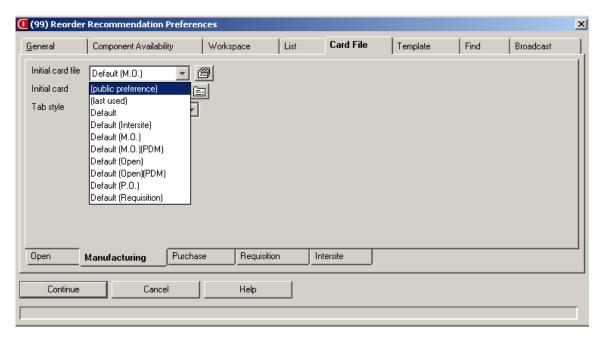


Figure 2-5. Reorder Recommendation Preferences card file - Card File card - Manufacturing tab

Select which card file, card, and tab style you want to display when you view details about a manufacturing order recommendation. Select another tab to set preferences for another order type.

**Reorder Recommendations list window.** This list window shows you the recommendations generated using the Generate Recommendations host job in Warehouses and Reorder Recommendations.

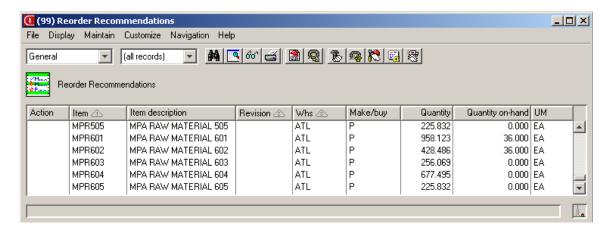


Figure 2-6. Reorder Recommendations list window

• Action: This column shows whether the order is in progress. Valid values for the Completion code attribute in this column are:

0

1 Complete

Y \*Complete\*.

If the column has no value, no action occurred for the reorder recommendation. The asterisks on the Y- \*Complete\* value indicate a transaction request is not yet processed. When the server processes the request, the asterisked value is replaced with 1 - Complete.

 Make/buy: This attribute shows whether the recommendation is for a manufactured, purchased, or (if InterSite Logistics (ISL) is installed) intersite item.

You can use Reorder Recommendations to find your manufacturing requirements by viewing requests that are not complete and reviewing the Stocking order quantity - new (in the Quantity column) compared to the Quantity on-hand.

**Reorder Recommendation views.** Use these views to control the amount and type of information you view in the Reorder Recommendations list window. For example, use the Quantities view to consider reorder quantity, stocking order quantity - new, quantity on-hand, quantity on-order, quantity allocated, quantity available, order point, and safety stock information. Use the General view to consider only stocking order quantity - new and quantity on-hand information.

**Reorder Recommendation subsets.** Use these subsets to control the amount and type of reorder recommendations you view in the Reorder Recommendations list window. For example, you can restrict the list to recommendations for a particular buyer, planner, vendor, or warehouse. You can also restrict the list to recommendations that are open, Completion code status of 0 - , or restrict the list to recommendations that have a Completion code status of 1 - Complete.

## **Monitoring MRP recommendations**

In the list of MRP recommendations, you can review orders that are recommended through an MRP planning run, if MRP is installed. Use the Display menu to view details about MRP recommendations, view sources of demand, or retrieve information about the item, warehouse, bills of material, or other objects related to recommendations.

Use the MRP Recommendation preferences, list window, and subsets to help you view demand.

**MRP Recommendation Card File Preferences.** Depending on the applications you installed; XA generates MRP recommendations for manufacturing orders, production schedules, purchase orders, requisitions, and intersite orders. Each recommendation in MRP Recommendations contains specific information that applies to the order type; therefore, OBPM displays them on different cards.

Set your preferences for MRP Recommendation card files using the Preferences ... option on the Customize menu. Select the Card File card and then the order type using one of the following tabs at the bottom of the card:

- Planned
- Manufacturing
- Schedule
- Purchase
- Requisition
- Intersite.

In Figure 2-7, the Manufacturing tab is selected.

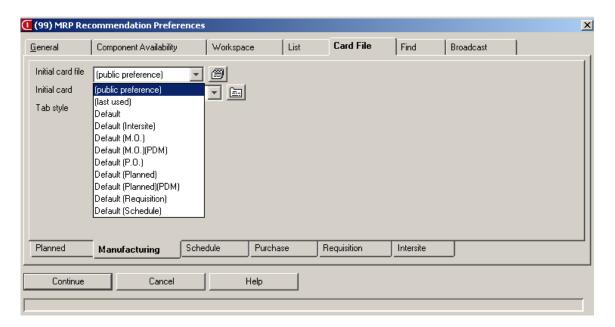


Figure 2-7. MRP Recommendation Preferences - Card File card - Manufacturing tab

Select which card file, card, and tab style you want to display when you view details about a manufacturing order recommendation. Select another tab to set preferences for another order type.

**MRP Recommendations list window.** This list window shows you the recommendations generated during an MRP planning run.

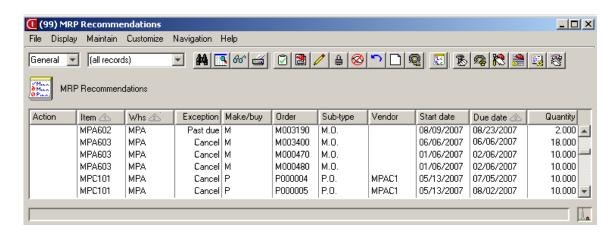


Figure 2-8. MRP Recommendations list window

- Action: This column shows whether an action is pending for the order. Valid values for the Action attribute are:
  - 1 Partial
  - 2 Create (S-number)
  - C Cancel

F Firm P Change R Create.

If the column has no value, no action is pending for the MRP recommendation. If the Immediate processing of transactions option is checked in MRP Recommendation Preferences, the Action column will always be blank unless the OBPM ujob is not active. For more information about Immediate processing of transactions, see "Maintaining MRP recommendations" on page 6-13.

- Exception: This column shows the Exception status, MRP's recommendation for the action that you should take on this order.
- Make/buy: This attribute shows whether the recommendation is for a manufactured, purchased, production scheduled (if Repetitive Production Management (REP) is installed), or intersite item (if ISL is installed).

You can use the MRP Recommendations list window to view and act on orders, as well as narrow the list of recommendations by planner, buyer, vendor, items with exceptions, orders with pending actions, and by make/buy code.

**MRP Recommendation subsets.** Use these subsets to control the amount and type of MRP recommendations you view in the MRP Recommendations list window. For example, you can restrict the list to recommendations for the following types of Exception status.

- · All exceptions subset includes all orders that have any exception.
- Release exceptions subset includes all planned orders that MRP recommends that you
  release or that you expedite and release.
- Reschedule exceptions subset includes planned or released orders that MRP recommends you schedule or move in one of the following ways:
  - Expedite and release
  - Expedite, reschedule, and release
  - Expedite
  - Reschedule
  - Defer.

### Monitoring customer demand

If the COM and either the Product Data Management (PDM) or Enterprise Data Management (EPDM) applications are installed, OBPM can create manufacturing orders using customer order line items in the Customer Demand object.

The Customer Demand list window shows information about customer order line item releases for which manufacturing orders are planned or released. The information is a subset of Customer Order Line Item Releases as in COM, sorted by the warehouse associated with the item and the line item manufacturing date.

Use the Customer Demand list window and subsets to help you view demand.

**Customer Demand list window.** This list window shows you the C.O. Line Item Releases for which you might want to generate manufacturing orders.

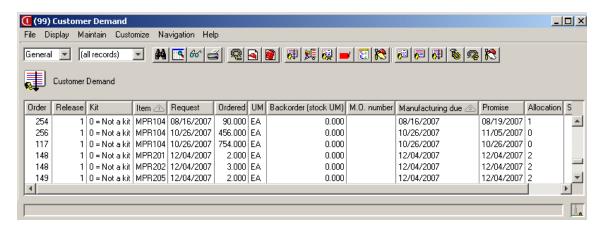


Figure 2-9. Customer Demand list window

**Customer Demand subsets.** Use these subsets to control the amount and type of customer demand records you view in the Customer Demand list window. For example, you can restrict the list to customer demand records for which there is no manufacturing order.

### **Printing shortage reports**

The Item Shortage report helps you analyze your order release system. All the items required for every order selected for analysis are printed in detail on this report, including such information as inventory available to commit for the order, the date that inventory is required, commitments to customer orders (if COM is installed), and the material allocations for released manufacturing orders.

The Item Shortage report can also be used to identify trends or characteristics, considering your total order release system, although individual items might be exceptions (for example, due to changed lead-times).

The Order Shortage report helps you find out what orders of a group can be released without shortages. Orders with shortages appear on the Order Shortage report with a list of components. The quantity short is printed on the report in detail as well as conflicts caused if you release only complete orders. You can use this report to alter the order size to avoid a shortage or to release only orders that can be completed.

If you request both an Order Shortage report and an Item Shortage report, you can identify a shortage for an order and use the detail on the Item Shortage report to free up inventory for that order. Using the component list, you can find out what items have shortages and how much you will need to cut back the quantity or delay the release of the order to have components available.

You can print the Item Shortage report and Order Shortage report any time with the Host Print ... option on the File menu in the following objects:

- Manufacturing Orders
- Schedules
- Production Receipts.

In addition, you can print the Order Shortages report in the Warehouses object.

Subsets allow you to narrow the list of manufacturing orders or schedules you want to see. To narrow a list of manufacturing orders or schedules, use the Subset option on the Customize menu to display only the manufacturing orders or schedules that, for example, are due between a range of dates or associated with a particular planner. When reporting item or orders shortages in Production Receipts, subset the records to either manufacturing orders or schedules.

The following procedure assumes you want to print an Item Shortage report for all manufacturing orders created during the past seven days. On the Manufacturing Orders list window, select the Created between ... subset. Enter the date for seven days ago and today's date on the Manufacturing Order: Created between ... prompt.

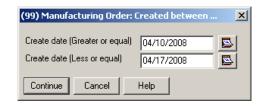


Figure 2-10. Manufacturing Order: Created between ... prompt

Click Continue to select manufacturing orders created in the last week. Select Host Print ... on the File Menu of the Manufacturing Orders list window. The Manufacturing Order Host Reports window opens. Select the Item Shortage tab and Print attribute.

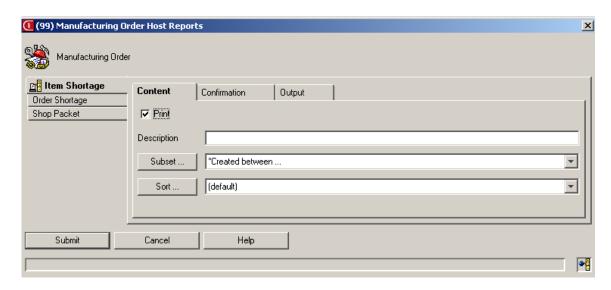


Figure 2-11. Manufacturing Order Host Reports - Item Shortage tab

Click Submit and a Confirmation prompt opens.

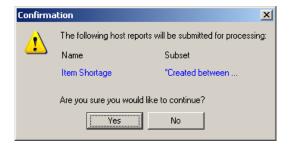


Figure 2-12. Confirmation Item Shortage report prompt

Click Yes to print the Item Shortage report. Use the report to view the materials you require to complete the manufacturing orders.

### **Creating component availability**

The Check Component Availability option is a tool for identifying and resolving shortages before manufacturing orders are released. Use this feature to see the components for potential manufacturing orders, either for orders with a shortage of components or for all orders, so that you can ensure material availability for the orders being released. The Check Component Availability option shows which orders in a list are short, which components on the orders are short, and the detailed availability of each component including the quantity required for each order in the list. You can also release selected orders or all orders using a list of potential orders or substitute items for short components as you work with component availability information.

When you check component availability, OBPM compares the total components you require for the potential manufacturing orders you select against the available quantity. If MRP is installed, you can consider future allocations as available when checking the availability of components for one or more potential manufacturing orders.

Future allocations (or time-phased allocations) are manufacturing allocations that are not required until a date later than the allocation time fence set in MRP.

Phantoms are never considered "short", because when a phantom is not available its components are allocated to the order; components of a phantom may be considered "short". Uncontrolled floor stock is never considered "short", because these items are assumed to be available on the manufacturing floor and are not issued to a manufacturing order from inventory.

Depending on the applications you installed, the Check Component Availability option is available on the Maintain menu in four objects:

- Item Warehouses
- Customer Demand
- MRP Recommendations
- · Reorder Recommendations.

Because checking component availability for many orders can take time to process, you can preset the maximum number of records to check. If the number of potential orders in your list is greater than the maximum, OBPM displays a warning message. Set this preference on the Component Availability card on the Preferences window in Customer Demand, MRP Recommendations, or Reorder Recommendations.

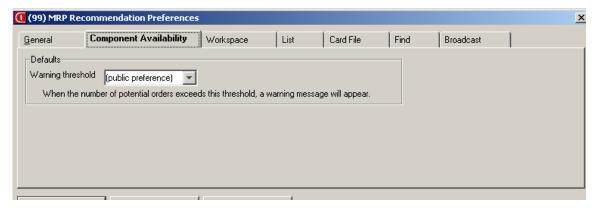


Figure 2-13. MRP Recommendation Preferences - Component Availability card

# Checking component availability

You can select the Check Component Availability option on the Maintain menu in Item Warehouses, Customer Demand, MRP Recommendations, or Reorder Recommendations.

The following procedure assumes you want to check for shortages for potential manufacturing orders. In Item warehouses, select the item warehouse for which you want to check availability. Select the Check Component Availability option on the Maintain menu. The Create Component Availability dialog opens.

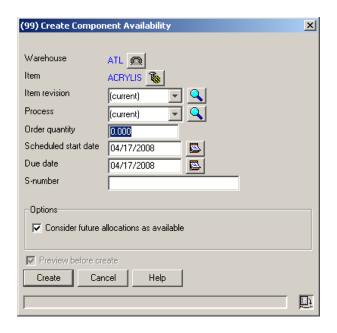


Figure 2-14. Create Component Availability dialog - from Item Warehouses

If you select this option, you can enter order information and mark future allocations as available. Click Create. The Create Component Availability card file opens.

Alternatively, select the Check Component Availability option on the Maintain menu in Reorder Recommendations, MRP Recommendations, or Customer Demand. The Create Component Availability dialog opens.

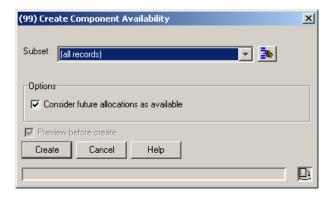


Figure 2-15. Create Component Availability dialog

If you select this option using these objects, you can subset the records you want to use to create potential orders and you can mark future allocations as available. Click Create. The Create Component Availability card file opens.

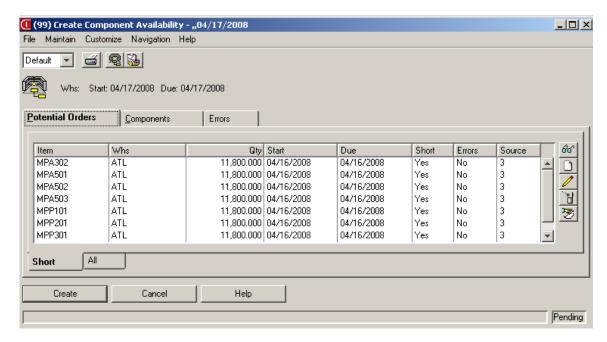


Figure 2-16. Create Component Availability card file - CA Potential Orders card - Short tab

The Create Component Availability card file shows the following:

- A list of potential orders on the CA Potential Orders card (the tab label is Potential Orders).
  - Select the Short tab to see a list of potential orders that have a shortage of components.
  - Select the All tab to see a list of potential orders that have a shortage of components and that are do not have a shortage.
- A summary overview list of components on the Components card.
  - Select the Short tab to see a list of components that are short.
  - Select the All tab to see a list of components that are short and that are not short.
- A list of errors on the Errors card if errors occur while checking component availability.
- A list of pending transactions on the Pending Transactions card if you change information in the Create Component Availability card file. If you recalculate component availability with the Recheck button, this card closes.

The following sections give a more detailed explanation of Component Availability functions.

### **Checking potential orders**

The CA Potential Orders card (the tab label is Potential Orders) in the Create Component Availability card file shows the items associated with the potential orders by warehouse and includes general information about potential orders, such as the order quantity, order start and due dates, whether components are short, the source of the potential order, and whether errors occurred when you selected the Check Component Availability option.

By default, OBPM displays the list of potential orders on the Short tab that restricts the potential orders to orders for which there are shortages.

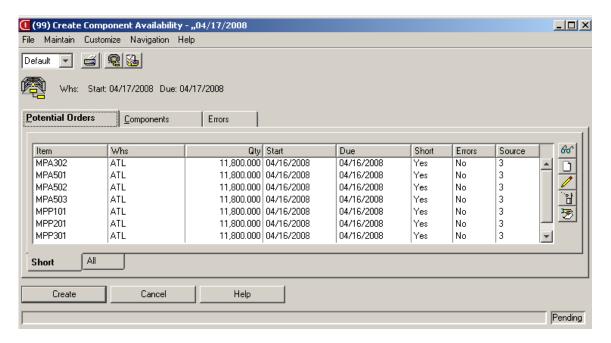


Figure 2-17. Create Component Availability card file - CA Potential Orders card - Short tab

You can view all potential orders by clicking the All tab.

There are five actions you can take on orders on the CA Potential Orders list card:

- · View potential order details
- Add a new potential order (also available on the Maintain menu of the Create Component Availability card file)
- Change a potential order
- · Delete potential orders
- · Create selected manufacturing orders.

You use the Recheck Component Availability option on the Maintain menu to recalculate component availability (based on the revised list of potential orders) if you added, changed, or removed potential orders. For information about working with the components on the potential orders, see "Checking components" on page 2-23.

*Viewing potential order details.* You can view detailed information about a potential order in the list, by selecting a potential order and clicking the Component Availability: Potential Order details button. The Component Availability: Potential Order card file opens.

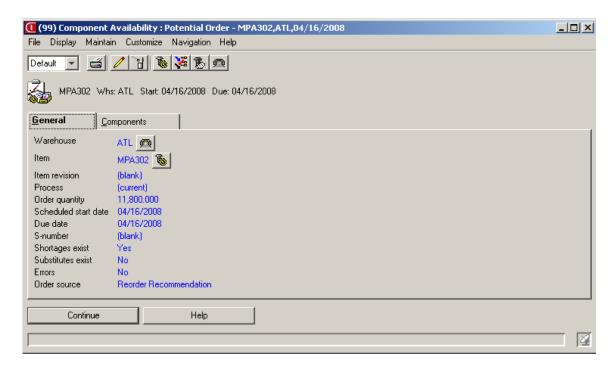


Figure 2-18. Component Availability: Potential Order card file - General card

The General card contains information about the potential order.

Select the Components card.

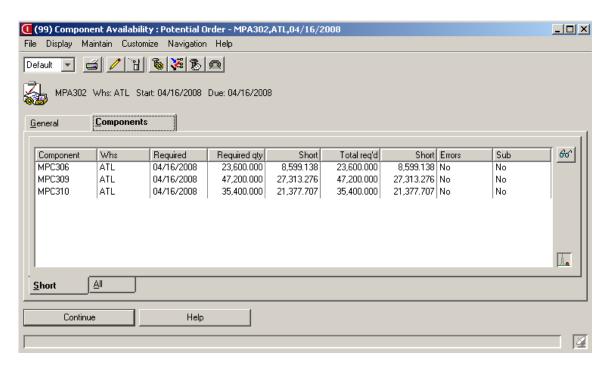


Figure 2-19. Component Availability: Potential Order card file - Components card

The Components card shows a list of components associated with the potential order. Use the Component Availability: Component details button to view detailed information about the component associated with this potential order.

You can view the item processes used by an item only if EPDM is installed.

**Adding new potential orders.** You can add one or more potential orders to the CA Potential Orders card by selecting the Add Potential Order option on the Maintain menu on the Create Component Availability card file.

(99) Add Potential Order - Add Potential Order File Navigation Help Default 🔻 Add Potential Order Single Multiple Warehouse Item Q | 🗞 | Item revision (current) Process (current) Order quantity 0.000 Scheduled start date 77 Due date 77 S-number Add Cancel Help

The Add Potential Order - Add Potential Order card file opens.

Figure 2-20. Add Potential Order - Add Potential Order card file - Single card

If the order type you want to add is a single order, enter the warehouse and item on the Single card. Enter the order quantity. OBPM calculates the start order date using the item's lead time, warehouse, and order due date. To recalculate the order due date, you enter an order start date.

If EPDM is installed, you can select a revision and process, or you can use the default Item revision and Item process for the current date. If PDM is installed, Item revision and Item process attributes are not available.

Click Add to add the potential order to your list, and then use the Recheck Component Availability option to recheck component availability.

(99) Add Potential Order - Add Potential Order File Navigation Help Default 🔻 Add Potential Order Multiple C Single Multiple Customer Demand Subset **▼** 30 Available to pick Mrp Recommendation All exceptions Reorder Recommendation Subset Buver **▼** 30 Add Cancel Help Pendina

If you want to add multiple orders, select the Multiple card and then select the Multiple attribute.

Figure 2-21. Add Potential Order - Add Potential Order card file - Multiple card

You can add multiple orders using all potential orders associated with customer order line items or pending orders in either MRP Recommendations or Reorder Recommendations. Select the source from which you want to add new potential orders and restrict the list to records you want using the Subset drop-down list. Click Add to include the new potential orders to the CA Potential Orders list card, and select the Recheck Component Availability option on the Maintain menu to recalculate component availability.

If errors occur when OBPM tries to complete the transactions, the Create Component Availability card file displays the Errors card. OBPM processes the transaction when all the errors are resolved and displays the information about the pending transaction on the Pending Transactions card.

**Note:** You can drag and drop orders from another source into the Component Availability workspace. Open one of the source objects from which you want to add potential orders and position the list window to the side of the Create Component Availability card file. Select potential orders in the source list and hold the mouse button down while you drag them to the Component Availability list.

**Changing potential orders.** Change the information for a potential order if you need to adjust order quantities, due dates, or any other information. You can change a potential order on the CA Potential Orders card by clicking the Change button or by selecting the Change option on the Maintain menu for the Component Availability: Potential Order card file.

You can change the warehouse for potential orders that are entered from the Item Warehouses object or on the Add Potential Order card file only.

**Deleting potential orders.** As you work with the potential orders in the CA Potential Orders list card, you can remove orders and recheck the shortages of component items. Select one record and click the Delete button. The Delete Component Availability: Potential Order prompt opens.

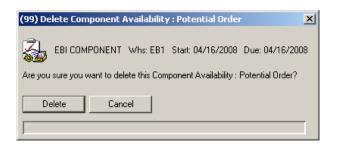


Figure 2-22. Delete Component Availability: Potential Order prompt

Alternatively, select two or more records and click the Delete button. The Delete Component Availability: Potential Orders ... prompt opens.

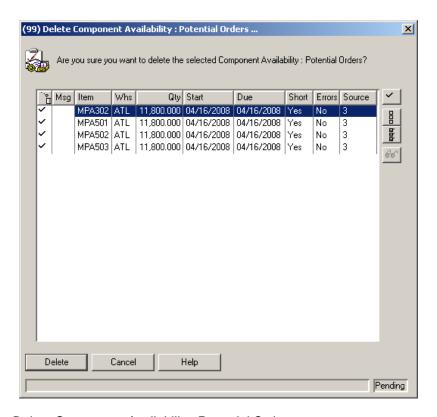


Figure 2-23. Delete Component Availability: Potential Orders ... prompt

Click Delete to confirm the action.

When the potential order is removed, select the Recheck Component Availability option on the Maintain menu of the Create Component Availability card file to recalculate component availability for the new group of potential orders and their components.

**Creating Manufacturing Orders.** Select one or more items in the CA Potential Orders list card and use the Create Manufacturing Order(s) button to create one or more manufacturing orders. For more information about creating manufacturing orders using the Create Component Availability card file, see Chapter 3, "Creating Manufacturing Orders."

## **Checking components**

The Components card in the Create Component Availability card file shows a list of components for the potential orders and includes general information about the components, such as the total quantity required, quantity available, quantity of the component that is short, and whether errors occurred when you selected the Check Component Availability option.

By default, OBPM displays the list of components that are short on the Short tab. You can view all components for potential orders by clicking the All tab.

The top-level items are summarized components. Expand the Summarized Components level to view all the orders for which a particular component is required.

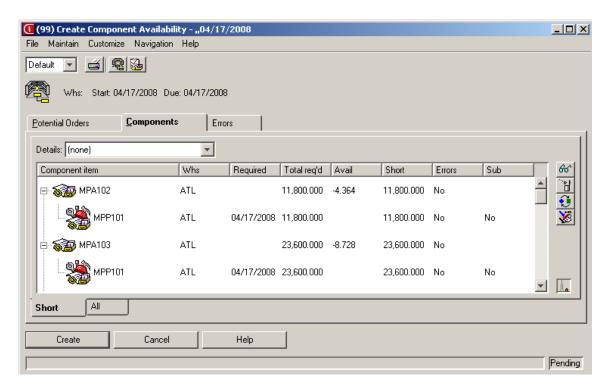


Figure 2-24. Create Component Availability card file - Components card - Short tab

You can perform five actions on the Components card on the Create Component Availability card file:

- View summarized component details
- View components details
- Remove potential orders
- Substitute items
- Change item processes (available if EPDM is installed).

**Viewing Summarized Components.** You can view detailed information about a summarized component in the overview list, by selecting a summarized component and clicking the Details button.

The Component Availability: Summarized Component card file opens.

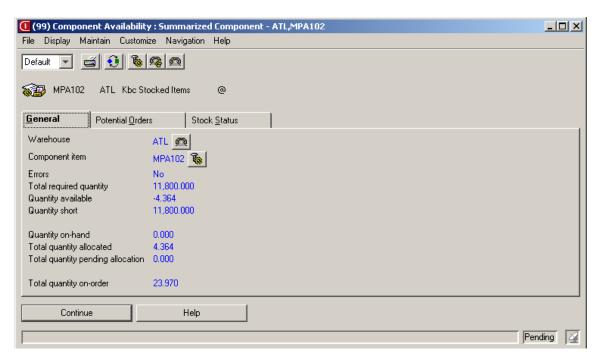


Figure 2-25. Component Availability: Summarized Component card file - General card

The General card shows information about the component item, total quantity required for all potential orders, the quantity available, the quantity short, quantity on-hand, total allocated quantity, total quantity pending allocation, and total quantity on-order.

Select the Potential Orders card.

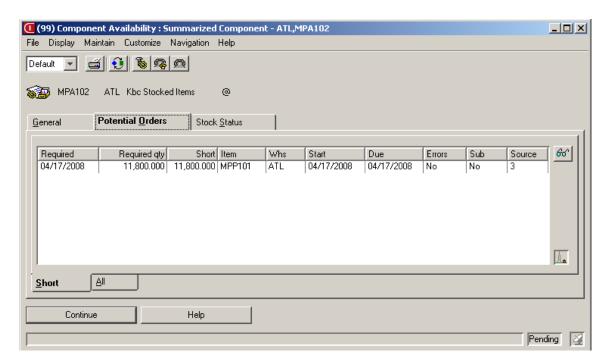


Figure 2-26. Component Availability: Summarized Component card file - Potential Orders card

The Potential Orders card lists each requirement for a component on the potential orders in the list.

Select the Stock Status card.

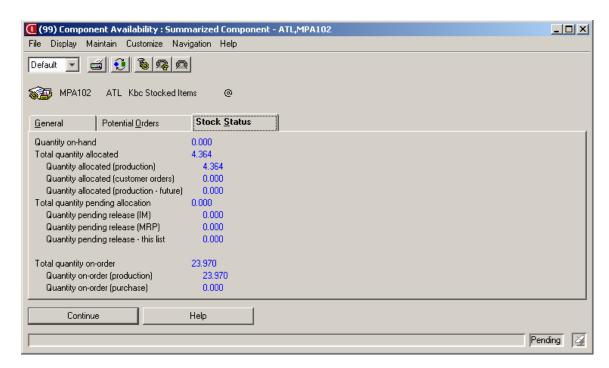


Figure 2-27. Component Availability: Summarized Component card file - Stock Status card

The Stock Status card shows the total quantities allocated and pending allocation on orders for the component.

**Viewing Components.** You can view detailed information about a component in the overview list, by selecting a component and clicking the Details button.

The Component Availability: Component card file opens.

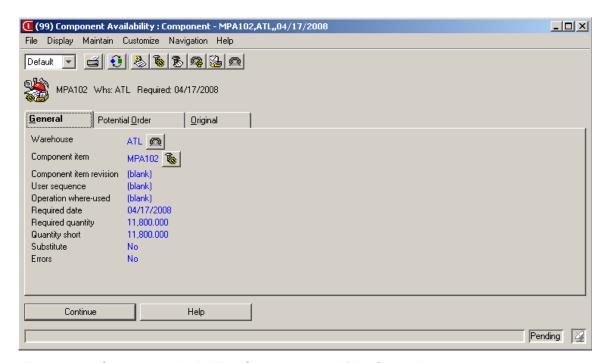


Figure 2-28. Component Availability: Component card file - General card

The General card shows information about the component item, quantity required, and the quantity short.

Select the Potential Order card.

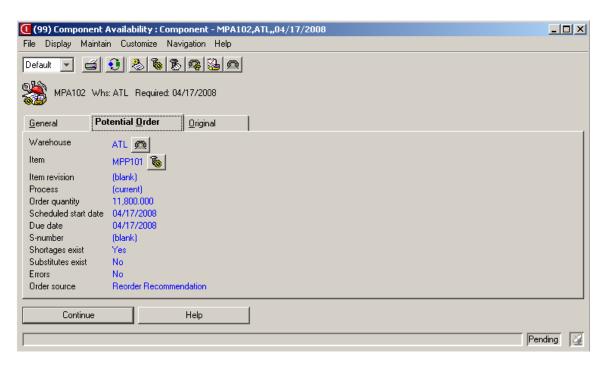


Figure 2-29. Component Availability: Component card file - Potential Order card

The Potential Order card shows information about the order including the source of the order, and if shortages or substitutes exist.

Select the Original card.

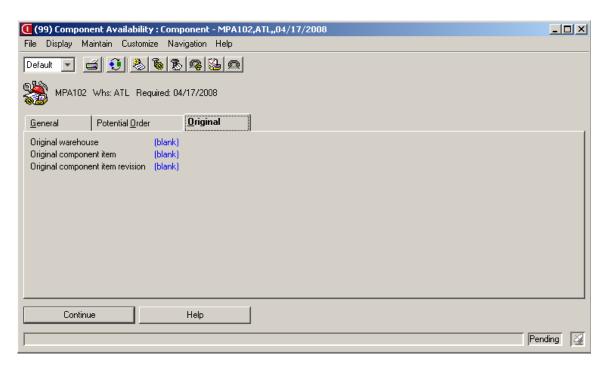


Figure 2-30. Component Availability: Component - Original card

The Original card lists the original values for the Warehouse, Component item, and Component item revision attributes. The attributes on the Original card are blank until you substitute a component or change the warehouse.

**Removing potential orders.** As you work with the components in the Components overview card, you can remove potential orders for the component and recheck the shortages of component items. Select a component and click the Remove Potential Order(s) button. The Delete Component Availability: Potential Order prompt opens.

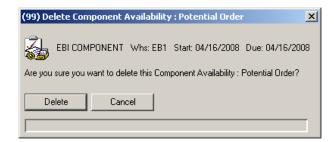


Figure 2-31. Delete Component Availability: Potential Order prompt

Click Delete to confirm the action.

When the potential order is removed, select the Recheck Component Availability option on the Maintain menu of the Create Component Availability card file to recalculate component availability for the new group of potential orders and their components.

**Substituting items.** Using the Components card in the Create Component Availability card file, you can substitute another item for a short component on one potential order or all potential orders.

The following procedure assumes you want to substitute a component for one potential order. Select the component availability: component on the Components card. You can either click the Substitute Component button on the Components card or double-click the component availability: component and in the Component Availability: Component card file, select Substitute item on the Maintain menu.

The Substitute Component - Single Order card file opens.

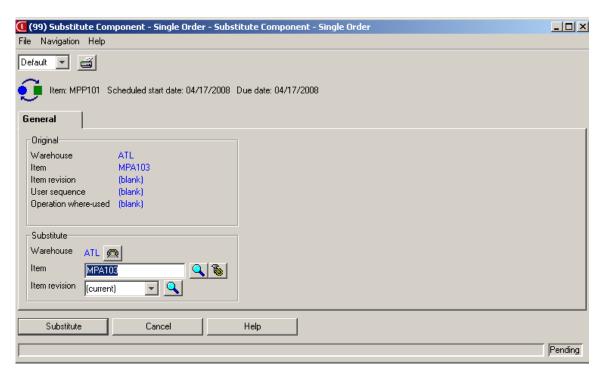


Figure 2-32. Substitute Component - Single Order card file - General card

Enter a new item in the Item attribute or click the Find button to search Item records. Items in this list are restricted to the warehouse shown. Select an item by double-clicking it.

If EPDM is installed, enter a revision in the Revision attribute or click the Find Substitute Item Revision ... button to select another revision. The [current] revision is an option and is the current revision that is effective on the date the component is required. You cannot select a revision without first changing the item.

Click Substitute button to replace the component item on one potential order with the new item and revision.

The following procedure assumes you want to substitute a component for all potential order that contain the component. Select the component availability: summarized component on the Components card. You can either click the Substitute Component button on the Components card or double-click the component availability: summarized component and in the Component Availability: Summarized Component card file, select Substitute item on the Maintain menu.

The Substitute Component - All Orders card file opens.



Figure 2-33. Substitute Component - All Orders card file - General card

Enter a new item in the Item attribute or click the Find button to search Item records. Items in this list are restricted to the warehouse shown. Select an item by double-clicking it.

If EPDM is installed, enter a revision in the Revision attribute or click the Find Substitute Item Revision ... button to select another revision. The [current] revision is an option and is the current revision that is effective on the date the component is required. You cannot select a revision without first changing the item.

Click the Substitute button to replace the component item on all potential orders with the new item and revision.

**Changing item processes.** If EPDM is installed, you can change the revision and process by selecting a component availability; component and clicking the Item Processes button on the Components card. The Item Processes list window opens with the revision and process associated with the potential order.

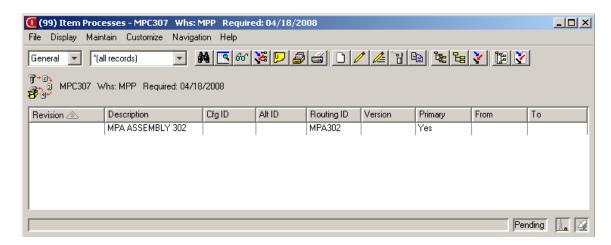


Figure 2-34. Item Processes list window

Select the item process and the Change option on the Maintain menu. The Effective from date is determined by the Order start date. After you make your changes, click Update.

### **Checking errors and transaction status**

OBPM displays the Errors card if errors occur when you use the Check Component Availability option. If OBPM does not find a warehouse for an item associated with a potential order, the Errors card shows the error so that you can resolve it before proceeding. If you need more information about an error, expand the error description to show the error message. Right-click the message and select Display menu, then select Message details. You can view details about a potential order with which the error is associated by double-clicking an item description in the Errors list.

OBPM displays the Pending Transactions card only when you change information in the Create Component Availability card file. If you recalculate component availability with the Recheck button, this card closes. OBPM logs pending transactions for each change you entered since the last recalculation.

# **Creating potential orders**

After you complete any changes to the information in the Create Component Availability card file, you can create all potential orders by clicking the Create button at the bottom of the window. The Please Confirm prompt opens, if you added or deleted potential orders.

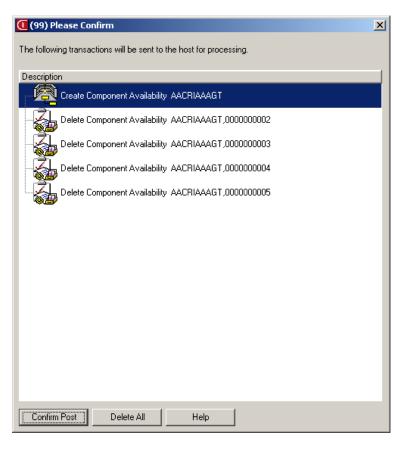


Figure 2-35. Please Confirm Create Component Availability prompt

Click Confirm Post to create the potential orders.

# **Chapter 3. Creating Manufacturing Orders**

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Other methods for creating manufacturing orders	
Using an existing manufacturing order	
Using a reorder recommendation	
Using an MRP recommendation	
Using a customer demand	
Using an item warehouse	
Using component availability	

#### **Overview**

The Order-Based Production Management (OBPM) application helps you create manufacturing orders. This chapter describes the process of creating manufacturing orders using the Manufacturing Orders object and other OBPM objects.

OBPM provides several ways to create manufacturing orders. You can create manufacturing orders using the Manufacturing Order default card file. To reduce the amount of information to need to enter, you can create manufacturing orders using the following:

- · The Default card file in Manufacturing Orders.
- · An existing order in Manufacturing Orders.
- An existing order in Manufacturing Order History.
- The Order Point Review file generated by Reorder Recommendations.
- MRP planned orders in MRP Recommendations.
- Customer order line items in Customer Demand.
- · Item warehouses records in Item Warehouses.
- · Component availability: potential order records in Check Component Availability.

How you create manufacturing orders depends on the amount of information you want to enter and the starting point you want to use.

Figure 3-1 illustrates the various starting points from which you can create manufacturing orders, components, operations, and charges.

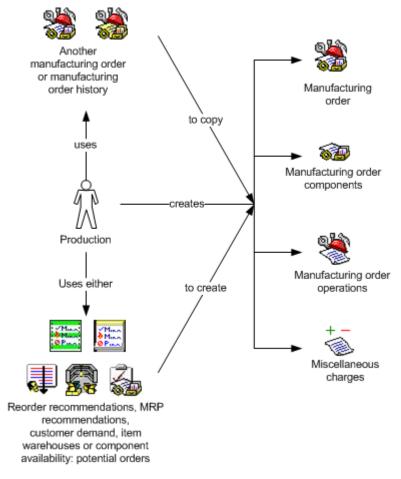


Figure 3-1. Overview of creating manufacturing orders

**Manufacturing Orders.** This object contains information related to released manufacturing orders.

**Manufacturing Order Components.** This object contains a list of all the components of the parent item on the selected manufacturing order.

**Manufacturing Order Operations.** This object contains a list of all operations related to the item on the selected manufacturing order.

**Manufacturing Order Miscellaneous Charges.** This object contains a list of all miscellaneous charges related to the item on the selected manufacturing order.

For information about Reorder Recommendations, MRP Recommendations, Customer Demand, Item Warehouses, and Component Availability objects; see Chapter 2, "Monitoring Demand for Manufacturing Orders."

# Creating manufacturing orders using the Default card file

You can use the Default card file for Manufacturing Orders to create manufacturing orders and add components, operations, and miscellaneous charges. Using the Default card file allows you enter all parts of an order as a single task. This technique is faster than creating manufacturing orders, manufacturing components, manufacturing operations, and miscellaneous charges separately using the Maintain options on the list windows for these objects.

### Creating a manufacturing order

The following procedure assumes you want to create a manufacturing order. In the Manufacturing Orders list window, select Create on the Maintain menu and the Create Manufacturing Order dialog opens.

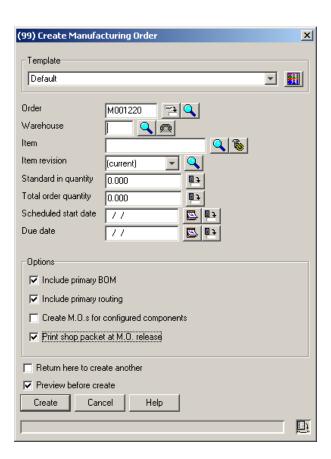


Figure 3-2. Create Manufacturing Order dialog

If you set preferences for OBPM to assign manufacturing order numbers, the order number appears in the Order attribute. You must enter a warehouse, item, and order quantity to create a manufacturing order.

If Enterprise Product Data Management (EPDM) is installed, you can select an item revision other than the current revision effective for the scheduled start date.

If you do not enter a scheduled start date or an order due date, OBPM assumes the scheduled start date is the current date, and the due date is the calculated from the start date using the item lead time.

Select Create M.O.s for configured components, to create manufacturing orders for configured components that belong to a configured parent item. This option is valid only if Cameleon Advanced Product Configurator (APC) is installed and the item is defined as a configured item.

If you want to print shop packets when OBPM creates the order, select the Print shop packet at M.O. release attribute. This attribute sets manufacturing order preferences to print shop packets whenever XA creates a manufacturing order.

If reason tracking is active for maintenance history, enter a reason code in the Reasons attribute.

In this example, you select to include the primary Bill of Material (BOM) and routing, and print the shop packet at M.O. release.

The information you enter on the Create Manufacturing Order dialog is enough to create a manufacturing order. If you want to view the Create Manufacturing Order card file and add order information such as components and operations, select Preview before create and click Create.

The Create Manufacturing Order card file opens displaying the General card. The information on the General card contains the default settings and information you entered on the Create Manufacturing Order dialog.

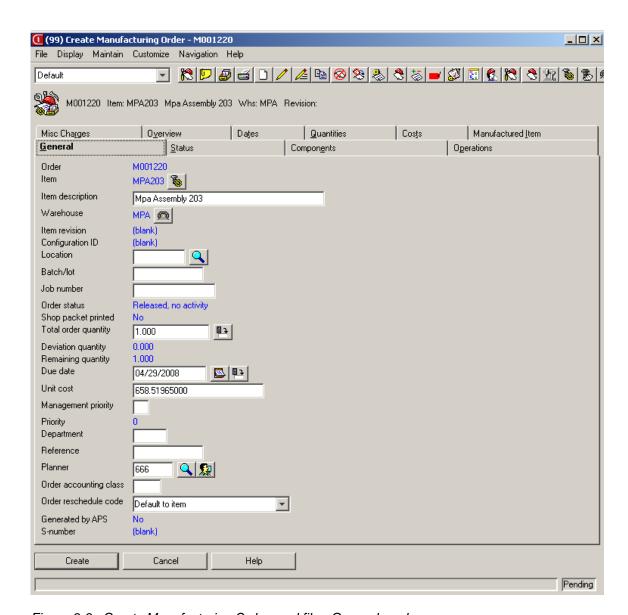


Figure 3-3. Create Manufacturing Order card file - General card

You can enter a batch/lot ID on a manufacturing order when creating or maintaining a manufacturing order. When processing a manufacturing order, OBPM uses this batch/lot ID if you do not supply a batch/lot ID on the receive production item (RM) transaction dialog.

You can enter a batch/lot ID in a controlled warehouse even when the item is not batch/lot controlled. You can use this feature if you want to store additional reference information about the receive production item (RM) transaction in IMHIST.

Select the Status card to review information, change the Management priority, or link the manufacturing order to a customer order. For information about linking to a customer order, see "Linking manufacturing orders to customer orders" on page 4-3.

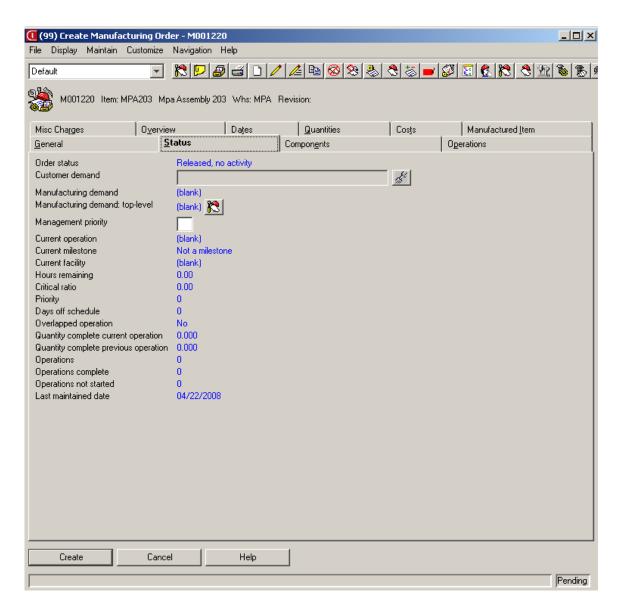


Figure 3-4. Create Manufacturing Order card file - Status card

(99) Create Manufacturing Order - M001220 File Display Maintain Customize Navigation Help Default M001220 Item: MPA203 Mpa Assembly 203 Whs: MPA Revision: Misc Charges 0<u>v</u>erview Dates Quantities Costs Manufactured Item Compon<u>e</u>nts <u>G</u>eneral <u>S</u>tatus Operations Whs Std quantity Component Component description Seq MPR201 Mpa Raw Material 201 MPA 1.000 66^ MPA MPR202 Mpa Raw Material 202 1.000 MPR203 Mpa Raw Material 203 MPA 1.000 MPR204 Mpa Raw Material 204 МΡΔ 1.000 MPR205 Mpa Raw Material 205 MPA 1.000 Create Cancel Help

Select the Components card to create components on this manufacturing order.

Figure 3-5. Create Manufacturing Order card file - Components card

In this example, there are components in the list window because you selected to include the primary BOM.

For more information about creating manufacturing order components, see "Creating an M.O. component" on page 3-16. In this example, using those steps, you add a component to this manufacturing order.

(99) Create Manufacturing Order - M001220 File Display Maintain Customize Navigation Help Default M001220 Item: MPA203 Mpa Assembly 203 Whs: MPA Revision: Misc Charges 0<u>v</u>erview Dates Quantities Costs Manufactured Item <u>G</u>eneral <u>S</u>tatus Components Operations Oper Description Facility Status Sch start Act start Sch complete Act complete 44 0005 Set Up Machince STMP1 10 66 0010 STMP1 10 Run Machine 0020 STMP2 10 Run Machine 0030 Rum Machine STMP3 10 0040 10 Welding VEN01 0050 Inspect WELD 10 Operation Quantities Operation Hours **Operation Dates** Create Cancel Help

Select the Operations card to create operations on this manufacturing order.

Figure 3-6. Create Manufacturing Order card file - Operations card

In this example, there are operations in the list window because you selected to include the primary routing.

For more information about creating manufacturing order operations, see "Creating an M.O. operation" on page 3-18. In this example, using those steps, you add an operation to this manufacturing order.

(99) Create Manufacturing Order - M001220 File Display Maintain Customize Navigation Help Default M001220 Item: MPA203 Mpa Assembly 203 Whs: MPA Revision: Status Components Operations General Misc Charges 0<u>v</u>erview Dates Quantities Costs Manufactured Item Misc Description Std quantity Std cost Act cost | Last transaction Act quantity 

Select the Misc Charges card to create miscellaneous charges on this manufacturing order.

Figure 3-7. Create Manufacturing Order card file - Misc Charges card

Help

Cancel

Create

For more information about creating manufacturing order charges, see "Creating an M.O. miscellaneous charge" on page 3-20. In this example, using those steps, you add a miscellaneous charge to this manufacturing order.

Select the Overview card to see all the contents of a manufacturing order in an indented outline.

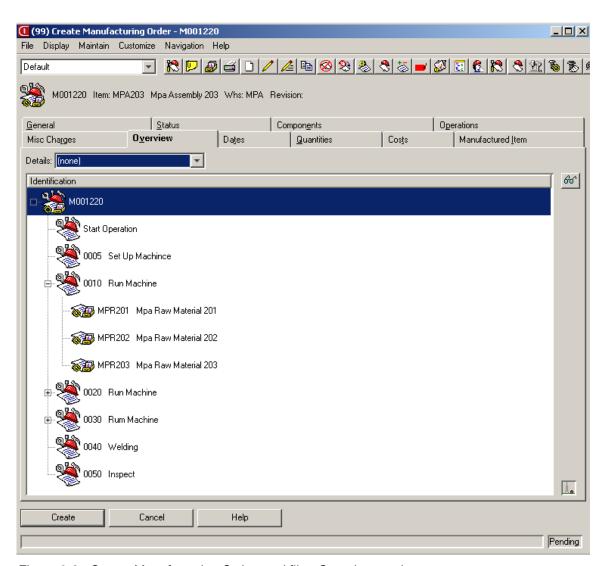


Figure 3-8. Create Manufacturing Order card file - Overview card

The highest-level in the overview is the manufacturing order, with other contents of the manufacturing order shown in lower-levels.

Select the Dates card to review information about manufacturing dates or to change the Scheduled start date or Due date.

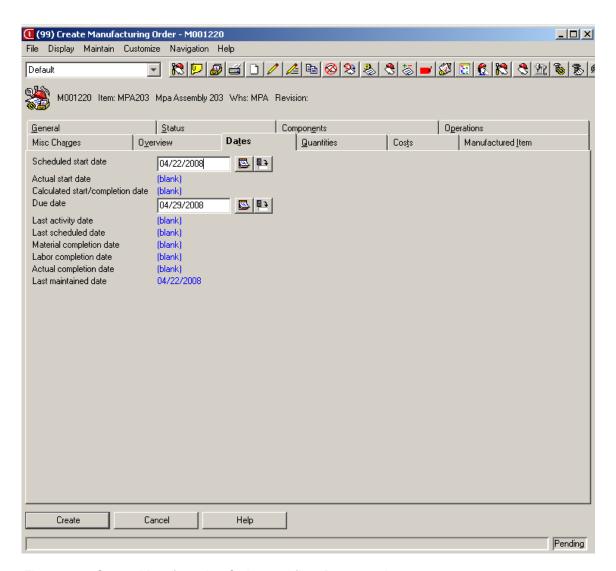


Figure 3-9. Create Manufacturing Order card file - Dates card

Select the Quantities card to review information about manufacturing quantities or to enter a Total order quantity.

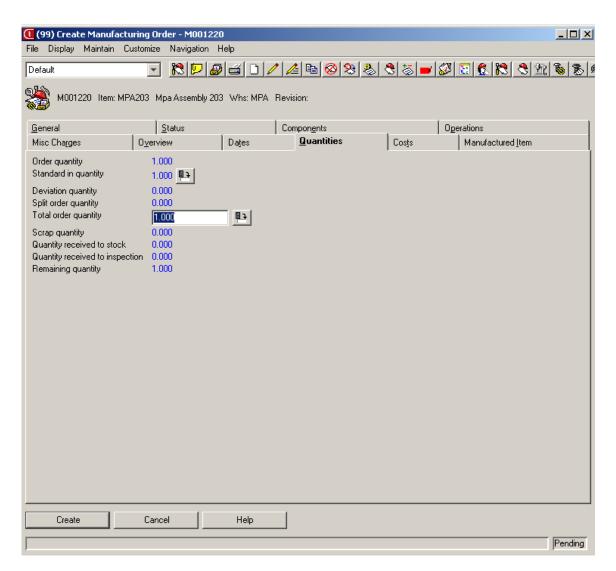


Figure 3-10. Create Manufacturing Order card file - Quantities card

Select the Costs card to review information about manufacturing costs or to change the Unit cost attribute.

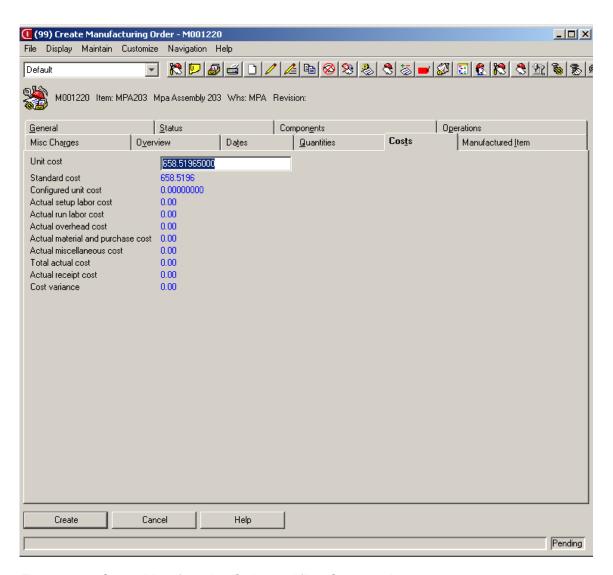


Figure 3-11. Create Manufacturing Order card file - Costs card

Select the Manufactured Item card to review information about the item being manufactured or to change the Item description, Drawing number, or Planner.

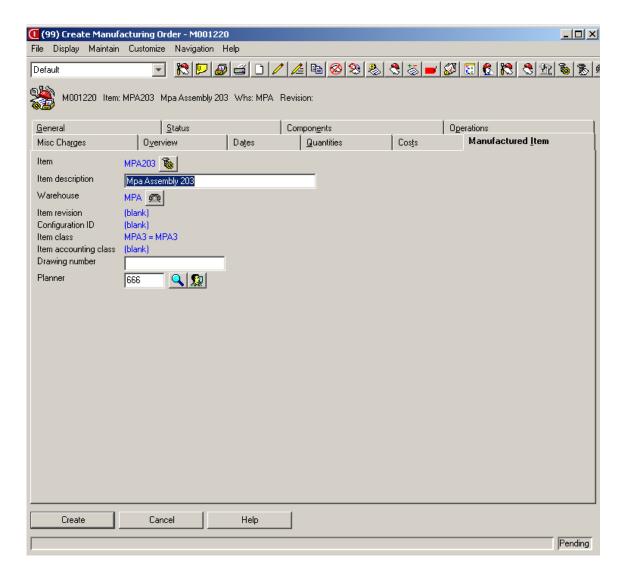


Figure 3-12. Create Manufacturing Order card file - Manufactured Item card

After you finish entering the information for the manufacturing order, components, operations, and charges; click the Create button.

The Please Confirm prompt opens, if you created components, operations, or charges for the manufacturing order while maintaining the Create Manufacturing Order card file.

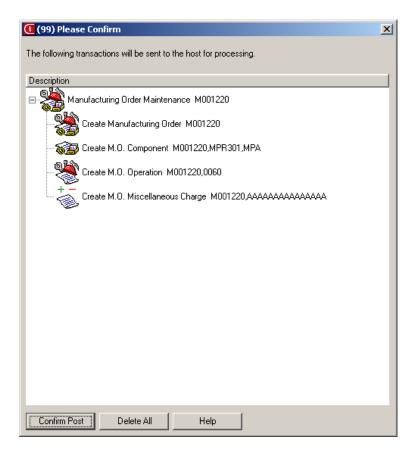


Figure 3-13. Please Confirm Create Manufacturing Order prompt

Click Confirm Post to create the manufacturing order and add any components, operations, and charges to the manufacturing order.

In the above example, only one M.O. component, M.O. operation, and M.O. miscellaneous charge is created. You use the same procedure to create and add many components, operations, and charges to the manufacturing order, by selecting Return here to create another on the Create dialogs or by clicking the Create buttons in the list windows.

### Creating an M.O. component

This example assumes you want to create a manufacturing order component at the same time you are creating the manufacturing order. However, you can also create M.O. components using the M.O. Components object. For example, to create an M.O. component, select the manufacturing order to which you want to add a component. Select M.O. Components on the Display menu. Select Create on the Maintain menu of the M.O. Components list window. The Create M.O. Component dialog opens.

If you want to create an M.O. component using the Create Manufacturing Order card file, select the Components card. Select the Create button to the right of the Components list window. The Create M.O. Component dialog opens.

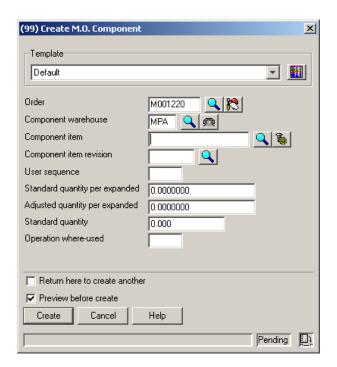


Figure 3-14. Create M.O. Component dialog

**Note:** You can use this procedure to create M.O. Components for an M.O. Operation using the Components card in the M.O. Operation card file. You are prompted for a manufacturing order number.

The information you enter on the Create M.O. Component dialog is enough to create a manufacturing order component. If you want to go to the Create M.O. Component card file and add order information such as backflush method, job number, or operation where-used; select Preview before create and click Create.

The Create M.O. Component card file opens displaying the General card. This card shows basic information about the M.O. component.

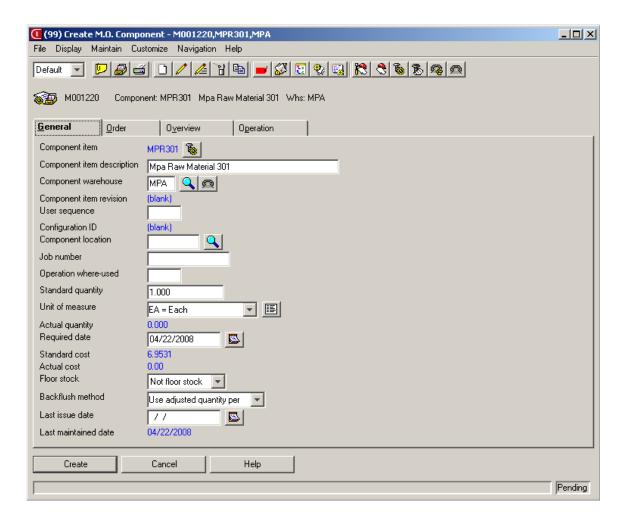


Figure 3-15. Create M.O. Component card file - General card

After you finish making your changes, click Create on the Create M.O. Component card file to add the new manufacturing order component to the manufacturing order.

# Creating an M.O. operation

This example assumes you want to create a manufacturing order operation at the same time you are creating the manufacturing order. However, you can also create M.O. operations using the M.O. Operations object. For example, to create an M.O. operation, select the manufacturing order to which you want to add an operation. Select M.O. Operations on the Display menu. Select Create on the Maintain menu of the M.O. Operations list window. The Create M.O. Operation dialog opens.

If you want to create an M.O. operation using the Create Manufacturing Order card file, select the Operations card. Select the Create button to the right of the Operations list window. The Create M.O. Operation dialog opens.

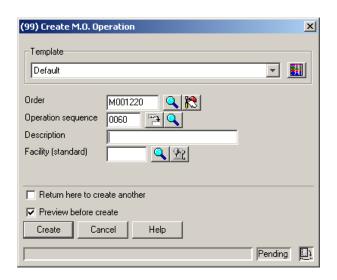


Figure 3-16. Create M.O. Operation dialog

The information you enter on the Create M.O. Operation dialog is enough to create a manufacturing order operation. If you want to go to the Create M.O. Operation card file and add order information such as components or additional descriptions, select Preview before create and click Create.

The Create M.O. Operation card file opens displaying the General card. This card shows basic information about the M.O. operation.

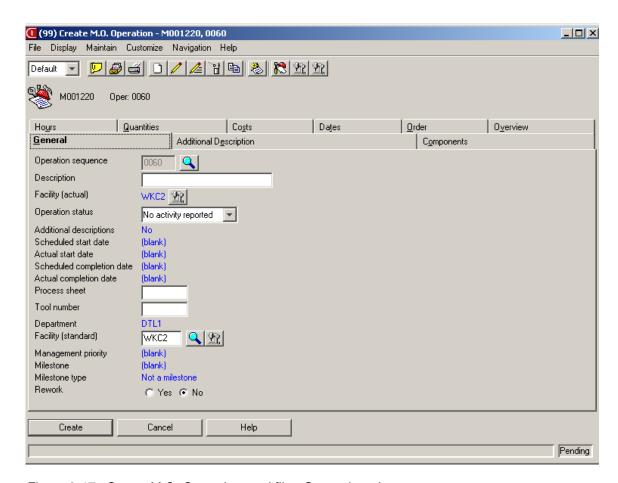


Figure 3-17. Create M.O. Operation card file - General card

Select the Additional Description card to add descriptions for the operation. Select the Components card to add components for the operation. For information about creating M.O. components, see "Creating an M.O. component" on page 3-16.

After you finish making your changes, click Create on the Create M.O. Operation card file to add the new manufacturing order operation to the manufacturing order.

# Creating an M.O. miscellaneous charge

This example assumes you want to create a manufacturing order miscellaneous charge at the same time you are creating the manufacturing order. However, you can also create M.O. miscellaneous charges using the M.O. Miscellaneous Charges object. For example, to create an M.O. miscellaneous charge, select the manufacturing order to which you want to add a charge. Select M.O. Miscellaneous Charges on the Display menu. Select Create on the Maintain menu of the M.O. Miscellaneous Charges list window. The Create M.O. Miscellaneous Charge dialog opens.

If you want to create an M.O. miscellaneous charge using the Create Manufacturing Order card file, select the Misc Charges card. Select the Create button to the right of the Miscellaneous Charges list window. The Create M.O. Miscellaneous Charge dialog opens.

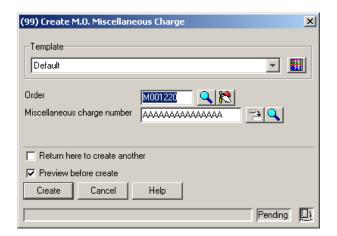


Figure 3-18. Create M.O. Miscellaneous Charge dialog

You must have a Standard quantity for the miscellaneous charge and to add order information such as standard costs, select Preview before create and then click Create.

The Create M.O. Miscellaneous Charge card file opens displaying the General card. This card shows basic information about the M.O. miscellaneous charge.

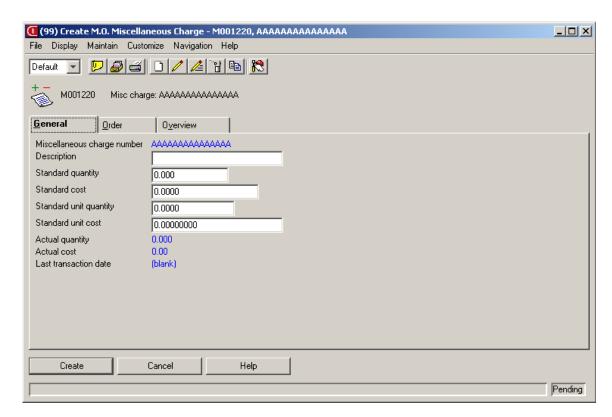


Figure 3-19. Create M.O. Miscellaneous Charge card file - General card

Enter the Standard quantity. After you are finish making your changes, click Create on the Create M.O. Miscellaneous Charge card file to add the new manufacturing order miscellaneous charge to the manufacturing order.

### Other methods for creating manufacturing orders

You can use information in OBPM to help you create manufacturing orders, such as copying the information on existing manufacturing orders or manufacturing order history records to use on the manufacturing orders you are creating.

Alternatively, you can use reorder recommendations, MRP recommendations, customer demand, item warehouses, and component availability records to create manufacturing orders. For information about viewing these objects, see Chapter 2, "Monitoring Demand for Manufacturing Orders."

Creating other types of orders using reorder recommendations and MRP recommendations is discussed in Chapter 6, "Working with Recommendations."

# Using an existing manufacturing order

Copying an open or purged manufacturing order to create another manufacturing order eliminates some data entry. However, you must enter some information and review the new manufacturing order when the copy is complete to update the manufacturing order with new dates, quantities, and costs if these values are changed.

You define the components, operations, and miscellaneous charges to copy on the Copy Manufacturing Order dialog or Copy to Manufacturing Order dialog.

This procedure assumes you want to copy an open manufacturing order. In the Manufacturing Orders list window, select the manufacturing order you want to copy and select Copy on the Maintain menu.

(99) Copy Manufacturing Order X M001220 Item: MPA203 Mpa Assembly 203 Whs: MPA Revision: Template **##** (none) ¥ Target Order M001240 Total order quantity 1.000 ■ → Scheduled start date 04/22/2008 <u>≅</u> | ₽≯ Due date 04/29/2008 Options Copy components Template 融 Copy operations Copy M.O. Operation Description Copy miscellaneous charges 🔊 Preview before copy Сору Cancel Help Ē

The Copy Manufacturing Order dialog opens.

Figure 3-20. Copy Manufacturing Order dialog

Enter the appropriate details on the Copy Manufacturing order dialog. Change the Scheduled start date or Due date before you copy the manufacturing order. OBPM does not recalculate dates automatically for when the components are required after the copy is processed.

You have the option to copy components, operations, and miscellaneous charges. If you are copying the BOM and routing using the source manufacturing order, OBPM clears the source values.

Use the Copy template if you want to replace an attribute value with blanks. For example, you might want to blank out the date attributes or you might want to break the relationship the source purchase order has with a customer order. In this case, you make sure the attributes with the values you want to remove are on the copy template, but have a blank value in them.

**Note:** Improper settings on templates can cause OBPM to copy data you do not want from orders with activity to a new manufacturing order. For more information about working with templates to create objects, see the *Infor ERP XA Browser Concepts Guide*.

If reason tracking is active for maintenance history, enter a reason code in the Reasons attribute.

The information you enter on the Copy Manufacturing Order dialog is enough to create the manufacturing order. If you want to go to the Default card file and add order information, select Preview before copy.

(99) Copy Manufacturing Order - M001240 File Display Maintain Customize Navigation Help Default M001240 Item: MPA203 Mpa Assembly 203 Whs: MPA Revision: Overview Dates Costs Manufactured Item Misc Charges Quantities <u>G</u>eneral Status Components Operations M001240 Order Item MPA203 🗞 Item description Mpa Assembly 203 MPA 🙊 Warehouse (blank) Item revision Configuration ID (blank) Location Batch/lot Job number Order status Released, no activity Shop packet printed No Total order quantity 1.000 1 Deviation quantity 0.000 1.000 Remaining quantity **₹**□ **≥** Due date 04/29/2008 Unit cost 658.51965000 Management priority Priority Department Reference 666 Order accounting class Order reschedule code Default to item ¥ Generated by APS S-number (blank) Сору Cancel Help Pending

Click Copy and the Copy Manufacturing Order card file opens.

Figure 3-21. Copy Manufacturing Order card file - General card

Enter the appropriate details on the Copy Manufacturing Order card file. OBPM retrieves standard costs and rates from the current Item Master (or Item Revision), Item Balance, and Facility (work center) files and calculates total cost for the new order quantity.

For more information about changing the Manufacturing Order Default card file, see "Creating manufacturing orders using the Default card file" on page 3-3.

After you add information, M.O. components, M.O. operations, and M.O. miscellaneous charges; click Copy instead of Create to create the manufacturing order. OBPM adds the manufacturing order to the Manufacturing Orders object.

# Using a reorder recommendation

With OBPM, you can select one or more reorder recommendations and convert them into manufacturing orders. OBPM provides two ways to create orders using reorder recommendations:

- Using the Create Order or Mass Create Orders options on the Maintain menu of the Reorder Recommendations list window.
- Using the create options available using the Generate Reorder Recommendations host job.

To work with the manufacturing order after you create it in Reorder Recommendations, use the Manufacturing Orders object, which contains the released order.

You can also create purchase orders, requisitions, and intersite orders using the Create Order option in Reorder Recommendations. The order you create depends on the Make/Buy - new status of the reorder recommendation. Alternatively, you can create these orders using the Generate Reorder Recommendations host job.

#### Creating a single order using Reorder Recommendations

This procedure assumes you want to create a manufacturing order using a reorder recommendation. In the Reorder Recommendations list window, select a reorder recommendation that has a Make/buy - new status of M - Manufacturing order. Select the Create Order option on the Maintain menu and the Change Reorder Recommendation card file opens showing the New vs Planned card.

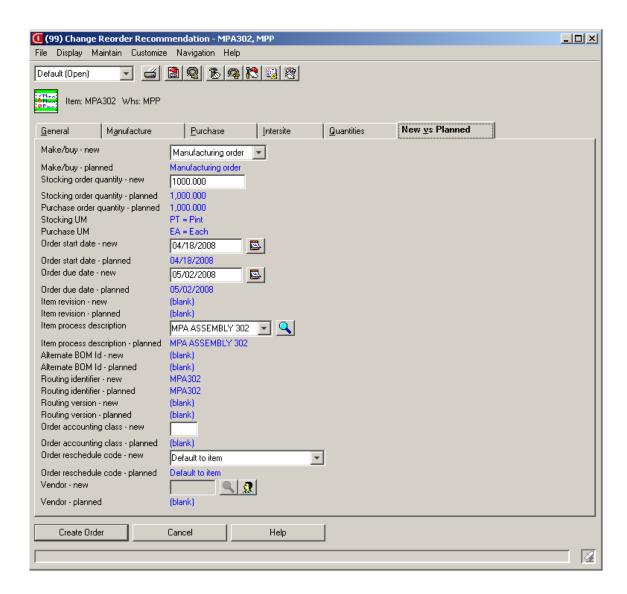


Figure 3-22. Change Reorder Recommendation card file - New vs Planned card

**Note:** You can change the way OBPM displays information for an object by selecting the Preferences option on the Customize menu. For more information, see "Monitoring reorder recommendations" on page 2-6.

After you finish making your changes, view the New vs. Planned card to compare your values with the original values generated by Reorder Recommendations. When you are satisfied with your changes, click the Create Order button to create the order.

**Note:** You can use the Preferences option on the Customize menu to set up Reorder Recommendations to print shop packets when you create orders for manufactured items. For information about OBPM shop packets, see "Printing shop packets" on page 4-11.

#### Creating multiple orders using Reorder Recommendations

This procedure assumes you want to create two or more manufacturing orders using multiple reorder recommendation records. In the Reorder Recommendations list window, select the reorder recommendations in the list that have a Make/buy - new status of M - Manufacturing order.

An easy way to create multiple orders in a list of recommendations is to create a subset of recommendations based on buyer, planner, vendor, or open orders. You can create orders for all the recommendations in the subset or select recommendations in the subset. If you do not create a subset of the recommendations, all the recommendations in the list have orders created for them.

Select Mass Create Orders on the Maintain menu and the Mass Create Order Using Reorder Recommendation dialog opens.

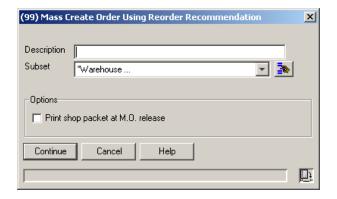


Figure 3-23. Mass Create Order Using Reorder Recommendation dialog

Enter the description and the subset to create orders for the recommendations in the list. Select the Print shop packet at M.O. release attribute to print the shop pack when OBPM creates the order. Click Continue.

The Please Confirm prompt opens.



Figure 3-24. Please Confirm Mass Create Reorder Recommendation prompt

In this example, you are prompted to confirm the subset that you selected. Click Yes to create orders for the reorder recommendations in the subset.

#### Creating orders using the Generate Reorder Recommendation host job

This procedure assumes you want to create manufacturing orders using a Generate Reorder Recommendation host job. In the Reorder Recommendations list window, select Host Jobs ... on the File menu. The Reorder Recommendation Host Jobs window opens. Select the Generate Reorder Recommendations tab and Execute attribute.

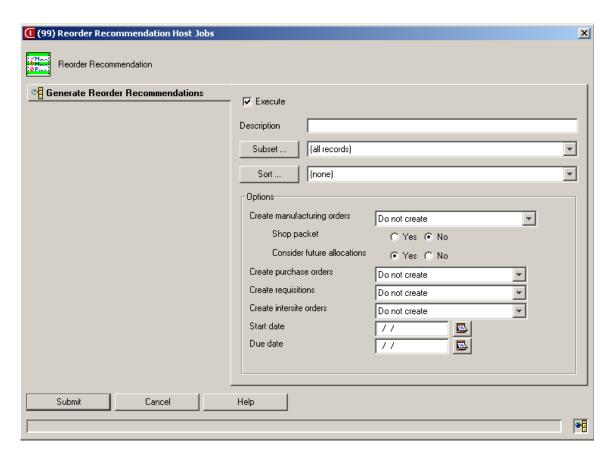


Figure 3-25. Reorder Recommendation Host Jobs window - Generate Reorder Recommendations tab

Enter the description, subset, and sort to select the warehouses for which you want to generate reorder recommendations and create manufacturing orders.

Select the Create manufacturing order option that meets your requirements from the drop-down list. Your options are:

Option	Description
Create	Automatically creates the manufacturing order when the reorder recommendation is generated.
Create, if all components are available	Analyzes the availability of components associated with the reorder recommendation. If components are available, OBPM creates the manufacturing order.
Create based on auto release code	Uses the Auto release manufacturing code to decide how a manufacturing order is automatically created. The Auto release manufacturing code is defined in Item Warehouse, Planning Information card and has the following options:
	0 - Do not auto release.
	1 - Auto release M.O. if all components are available.
	2 - Auto release M.O.
Do not create	Generates the reorder recommendation for a manufacturing order but does not create the order. You can create orders using the recommendation later through the Reorder Recommendations object.

Table 3-1. Generate Reorder Recommendations host job - Create manufacturing order options

Select Yes for the Shop packet attribute, if you want to generate a shop packet.

If Material Requirements Planning (MRP) is installed, you can choose to consider future allocations as available when OBPM checks component availability for an order. Future allocations are components required outside the item's lead time or after an allocation time fence (designated in MRP). Select Yes to consider future allocations.

After you finish making your changes, click Submit to generate the reorder recommendations and to create manufacturing orders based on the options you selected.

# **Using an MRP recommendation**

If MRP is installed, you can use MRP Recommendations to process orders recommended by an MRP planning run. This option is only available on planned and firm planned orders and not for Repetitive Production Management (REP) scheduled items or items configured with Knowledge Based Configurator (KBC).

The Create Order option releases a manufacturing order, purchase order, purchase requisition, or intersite order. The type of order you create depends on the Make/Buy - new status of the MRP recommendation.

When selected in Deferred mode for an M.O., this option creates pending allocations for components.

You can work with the manufacturing order after you create it in MRP Recommendations, or you can use the Manufacturing Orders object, which contains the released order.

#### Creating a single order using MRP Recommendations

This procedure assumes you want to create a manufacturing order using an MRP recommendation. In the MRP Recommendations list window, select an MRP recommendation that has a Make/buy - new status of M - Manufacturing order. Select the Create Order option on the Maintain menu and the Change MRP Recommendation card file opens showing the New vs Planned card.

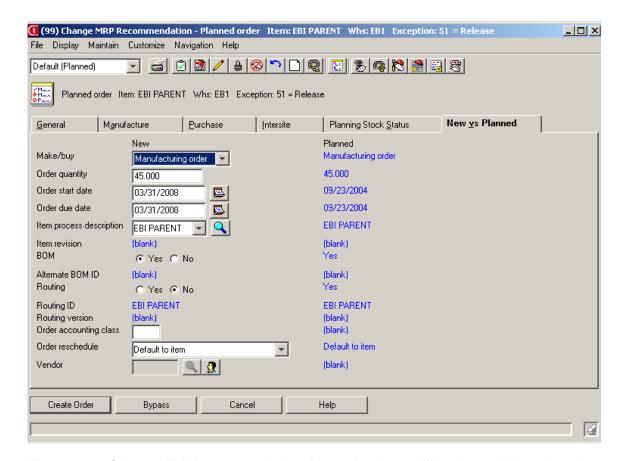


Figure 3-26. Change MRP Recommendation - Planned order card file - New vs Planned card

**Note:** You can change the way OBPM displays information for an object by selecting the Preferences option on the Customize menu. For more information, see "Monitoring MRP recommendations" on page 2-8.

After you finish making your changes, view the New vs. Planned card to compare your values with the original values generated by MRP Recommendations. When you are satisfied with your changes, click the Create Order button to create the order.

**Note:** You can use the Preferences option on the Customize menu to set up MRP Recommendations to print shop packets when you create orders for manufactured items. For information about OBPM shop packets, see "Printing shop packets" on page 4-11.

#### Creating multiple orders using MRP Recommendations

This procedure assumes you want to create two or more manufacturing orders using multiple MRP recommendation records. In the MRP Recommendations list window, select the MRP recommendations in the list that have a Make/buy - new status of M - Manufacturing order.

An easy way to create multiple orders using a list of recommendations is to create a subset of recommendations. For example, create a subset based on the Release exception. You can create orders for all the recommendations in the subset or select recommendations in the subset.

**Caution:** If you do not create a subset of the recommendations, all the recommendations in the list have orders created for them.

Select Mass Create Orders on the Maintain menu and the Mass Create Orders per MRP Recommendations dialog opens.

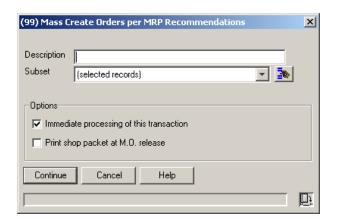


Figure 3-27. Mass Create Orders per MRP Recommendations dialog

Enter the description and the subset to create orders for the recommendations in the list. Select Immediate processing of this transaction to process the create order in immediate mode. Select the Print shop packet at M.O. release attribute to print the shop pack when OBPM creates the order. Click Continue.

The Please Confirm prompt opens.

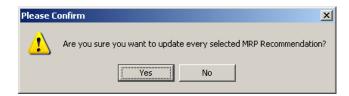


Figure 3-28. Please Confirm Mass Create MRP Recommendation prompt

In this example, you are prompted to confirm the records that you selected. Click Yes to create orders for the MRP recommendations you selected.

# Using a customer demand

If the Customer Order Management (COM) and either the Product Data Management (PDM) or EPDM applications are installed, OBPM can create manufacturing orders using customer order line items in the Customer Demand object.

The Customer Demand list window shows information about customer order line item releases for which manufacturing orders are planned or released. The information is a subset of Customer Order Line Item Releases as in COM, sorted by the warehouse associated with the item and the line item manufacturing date.

#### Creating a single order using Customer Demand

This procedure assumes you want to create a manufacturing order using a customer demand record. In the Customer Demand list window, select the customer demand record for which you want to create a manufacturing order. Select the Create M.O. option on the Maintain menu and the Create Manufacturing Order dialog opens.

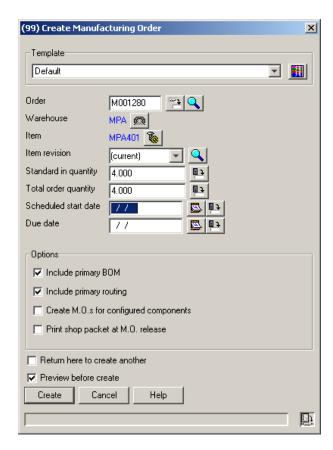


Figure 3-29. Create Manufacturing Order dialog

The information about the Create Manufacturing Order dialog is from the customer demand record. For information about creating the manufacturing order using the Create Manufacturing Order dialog, see "Creating manufacturing orders using the Default card file" on page 3-3.

#### Creating multiple orders using Customer Demand

This procedure assumes you want to create manufacturing orders using multiple customer demand records. In the Customer Demand list window, select the customer demand records from which you want to create manufacturing orders.

An easy way to create multiple orders using a list of customer demand records is to create a subset. For example, create a subset based on the customer demand records that have no manufacturing orders. You can create orders for all the records in the subset or select records in the subset.

**Caution:** If you do not create a subset of the customer demand records, all the records in the list have orders created for them.

Select Mass Create M.O. on the Maintain menu and the Mass Create M.O. from C.O. dialog opens.

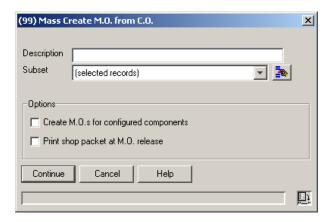


Figure 3-30. Mass Create M.O. from C.O. dialog

Enter the description and the subset to create orders for the records in the list. Select Create M.O.s for configured components, to create manufacturing orders for configured components that belong to a configured parent item. This option is valid only if APC is installed and the customer order line item is associated with an APC item. Select the Print shop packet at M.O. release attribute to print the shop pack when OBPM creates the order. Click Continue.

The Please Confirm prompt opens.

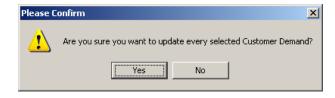


Figure 3-31. Please Confirm Mass Create Manufacturing Order prompt

In this example, you are prompted to confirm the records that you selected. Click Yes to create orders for the customer demand records you selected.

# Using an item warehouse

This procedure assumes you want to create a manufacturing order using an item warehouse. In the Item Warehouses list window, select the item warehouse record for which you want to create a manufacturing order. Select the Create Manufacturing Order option on the Maintain menu and the Create Manufacturing Order dialog opens.

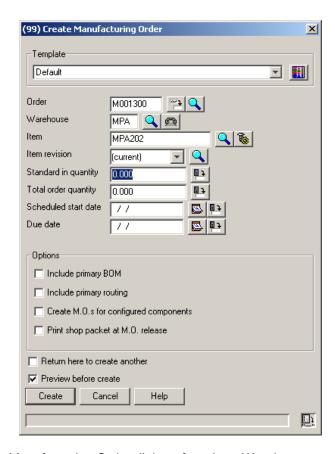


Figure 3-32. Create Manufacturing Order dialog - from Item Warehouses

The item and warehouse information on the Create Manufacturing Order dialog is from the item warehouse record. For information about creating the manufacturing order using the Create Manufacturing Order dialog, see "Creating manufacturing orders using the Default card file" on page 3-3.

# Using component availability

As discussed in "Creating component availability" on page 2-14, you can create component availability using Item Warehouses, Customer Demand, MRP Recommendations, and Reorder Recommendations. To open the Create Component Availability card file, select the Check Component Availability option on the Maintain menu.

The following procedure assumes that you checked the component availability in Customer Demand and now you want to create manufacturing orders using the potential orders you reviewed. In the Create Component Availability card file, select the potential orders in the CA Potential Orders list card. Click the Create Manufacturing Order(s) button to the right of the list window.

If reason tracking is active, OBPM displays the Assign Reason Code dialog before processing the transaction. Enter the reason code you want to use and click Continue.

A Confirm prompt opens.



Figure 3-33. Confirm Create Manufacturing Order prompt

Click Yes to create the manufacturing orders.

# **Chapter 4. Maintaining Manufacturing Orders**

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Linking manufacturing orders to customer orders	
Importing a bill of material	4-6
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#### **Overview**

This chapter describes the common activities that you might perform on manufacturing orders after the orders are created. Figure 4-1 shows these tasks.

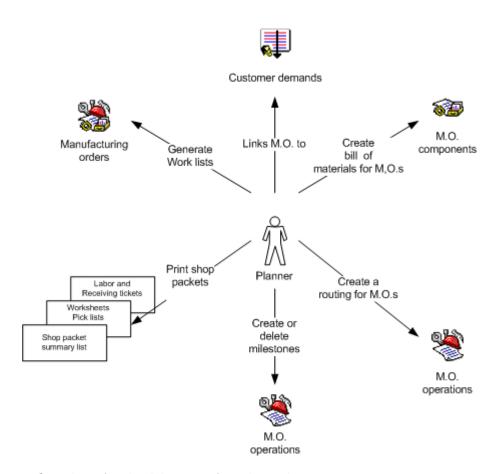


Figure 4-1. Overview of maintaining manufacturing orders

Some of the tasks this chapter discusses are available while creating the manufacturing order. For example, you can link a manufacturing order to a customer order, import a bill of material or routing, or print shop packets while creating the manufacturing order and after the manufacturing

order is created. Other tasks, such as generating work lists and adding or deleting milestones, you perform for manufacturing orders that are already created.

**Bills of material.** You can use the standard bills of material (defined in Product Data Management (PDM) or Enterprise Product Data Management (EPDM)) to create components for manufacturing orders. Bills of material define the components of a product. In an EPDM environment, each component that is part of the bill of material is tied to the item revision for the parent item. An item revision can have one or more bills of material. Each bill of material has a header record that describes the bill and associates the components of the bill with a standard batch quantity.

**Routings.** You can create routings for manufacturing orders. Routings are the sequence of operations or processes required to make an item. Each routing operation must identify the production facility where it is performed. It can have run machine, run labor, setup labor, and outside operations associated with it.

*Milestones.* You can create and delete milestones for M.O. operations. There are two types of milestone: job shop and flow shop.

**Shop Packet.** The Shop Packet includes worksheets, pick lists, labor tickets, and/or receiving tickets.

**Generate Work List host job.** The Work List updates the priorities of all the manufacturing orders in one or more sites, and optionally prints one or more Work List Reports, a Critical Orders Report and a Work Center Analysis Report. The host job can also be run by using the Submit Work List Generation (SBMPCCWLG) command called from a user-written program, which you can set up to run on a scheduled basis by using OS/400 scheduled jobs.

# **Changing manufacturing orders**

Common maintenance tasks for manufacturing orders, which you can perform using the Manufacturing Order Default card file, include:

- Adding, changing, and deleting components, operations, and miscellaneous costs using the buttons on the list window of the Components, Operations, and Misc Charges cards.
- Changing manufacturing order attribute values, such as the Customer demand attribute.
- · Importing a bill of material.
- Importing a routing.

Using M.O. Operations, you can create and delete milestones.

### Linking manufacturing orders to customer orders

You can create and remove the link between a manufacturing order and a customer order in Manufacturing Orders even if the manufacturing order has shop activity. For example, if you start building the item and a customer cancels the order, you can remove a link between the manufacturing order and customer order. If you receive a customer order and have a manufacturing order already open and not already linked to another customer order, you can create a link between the two orders.

Use the Customer demand attribute on the Status card in the Manufacturing Orders object to see whether a manufacturing order is currently linked to a customer order. If an order is linked, this attribute shows customer order data.

**Note:** You cannot link a Knowledge Based Configurator (KBC) manufacturing order to a customer order line item release.

#### Linking orders

This example assumes you want to link a customer order to a manufacturing order. In the Manufacturing Orders list window, select the manufacturing order to which you want to a link a customer order. Select Change on the Maintain menu. On the Status card in the Change Manufacturing Order card file, click the Link/Unlink C.O. Release button next to the Customer demand attribute.

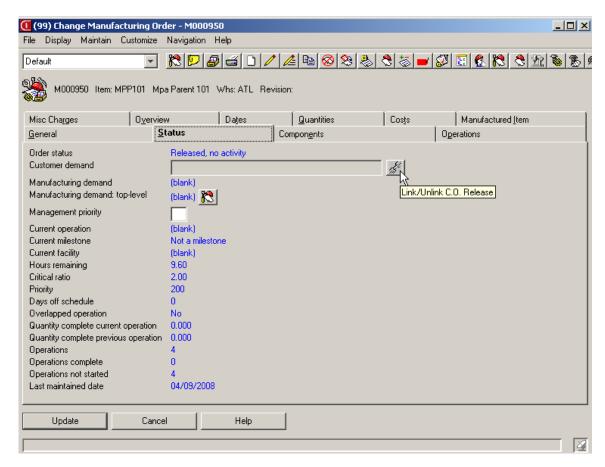


Figure 4-2. Change Manufacturing Order card file - Status card

The Find C.O. Line Item Release ... list window opens.

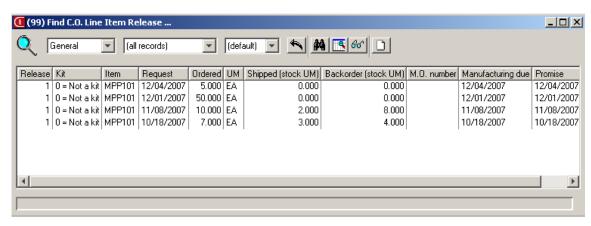


Figure 4-3. Find C.O. Line Item Release ... list window

The Find C.O. Line Release ... list shows customer orders that are not complete and not currently linked to a manufacturing order with an open pick quantity positive but not greater than the manufacturing order open quantity. The Find C.O. Line Release ... list also shows matching item, warehouse, and s-number if applicable.

Select a customer order line item release in the Find C.O. Line Release ... list and click the Select button to create a link between the manufacturing order and customer order line item release. Click Update to save the change.

When you create the link between the manufacturing order and customer order, the Customer demand and Job number attributes are loaded with customer order information.

### **Unlinking orders**

This example assumes you want to unlink a customer order from a manufacturing order. In the Manufacturing Orders list window, select the manufacturing order to which you want to a unlink a customer order. Select Change on the Maintain menu. On the Status card of the Change Manufacturing Order card file, click the Link/Unlink C.O. Release button to remove the link.

A Please Confirm prompt opens.

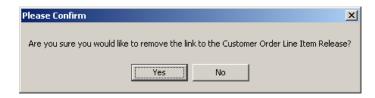


Figure 4-4. Please Confirm Unlink prompt

Click Yes and Update to save the change. OBPM clears the Customer demand and Job number attributes in the manufacturing order. You can now build the manufacturing order to stock or link it to another customer order.

This process does not affect existing discrete allocations against the customer order line item. If you want to delete the customer order line item, you must first delete any existing discrete allocations.

### Importing a bill of material

You can import an existing bill of material for a manufacturing item when creating a manufacturing order or as maintenance on a manufacturing order that has components.

When you create a manufacturing order using the Create Manufacturing Order dialog, you have an opportunity to import a primary bill for the item when specifying order quantities, start dates, and item information. Select Include primary BOM.

While creating the manufacturing order, you can add a bill of material using the Create Manufacturing Order card file. On the Components card, click the Import Bill of Material button. The Import Bill of Material card file opens. For information about the Create Manufacturing Order dialog and card file, see "Creating a manufacturing order" on page 3-3.

This procedure assumes you want to import a bill of material using the Import BOM card file. In the Manufacturing Orders list window, select the manufacturing order for which you want to import a bill of material. Select Import Bill of Material on the Maintain menu. Alternatively, in the Change Manufacturing Order card file, select the Components card and click the Import Bill of Material button.

The Import BOM card file opens.

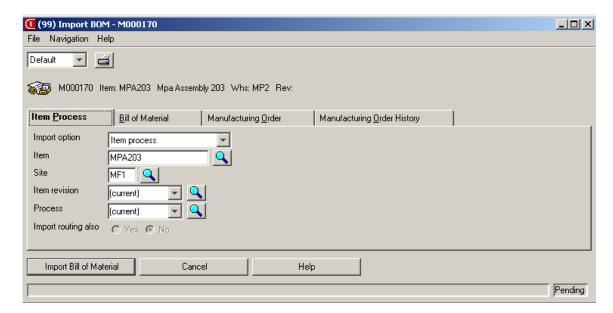


Figure 4-5. Import BOM card file - Item Process card

In the Import BOM card file, select a card using one of the following:

- Item Process (EPDM only)
- Bill of Material (EPDM only)
- Manufacturing Order
- Manufacturing Order History
- Item (PDM + only).

After you select a source, specify additional engineering data for the selected source. On the Item Process and Bill of Material cards, the options for importing bill of material data allow you to enter an item and find the EPDM sites, revisions, and processes associated with it. The Find buttons next to the Site, Item Revision, and Process attributes launch a search for these objects and display only the sites, revisions, and processes associated with or belonging to the item and site. For example, you cannot select an incorrect item revision or a process that is not used by a particular item revision at a site.

Select Yes for the Import routing also attribute if you want to import the routing with the bill of material. The Import Routing option uses the same data to import the routing as you entered to import a bill of material.

Click Import Bill of Material and a Please Confirm prompt opens.

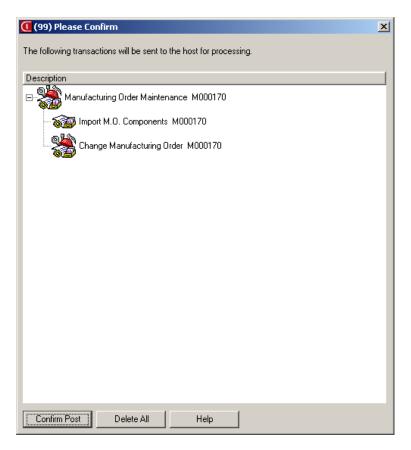


Figure 4-6. Please Confirm Import Bill of Material prompt

Click Confirm Post to import the components into the manufacturing order.

# Importing a routing

You can import an existing routing for a manufacturing item when creating a manufacturing order or as maintenance on a manufacturing order that has no routing operations.

When you create a manufacturing order using the Create Manufacturing Order dialog, you have an opportunity to import a primary routing for the item when specifying order quantities, start dates, and item information. Select Include primary routing.

While creating the manufacturing order, you can add a routing using the Create Manufacturing Order card file. On the Operations card, click the Import Routing button. The Import Routing card file opens. For information about the Create Manufacturing Order dialog and card file, see "Creating a manufacturing order" on page 3-3.

This procedure assumes you want to import a routing using the Import Routing card file. In the Manufacturing Orders list window, select the manufacturing order for which you want to import a routing. Select Import Routing on the Maintain menu. Alternatively, in the Change Manufacturing Order card file, select the Operations card and click the Import Routing button.

The Import Routings card file opens.

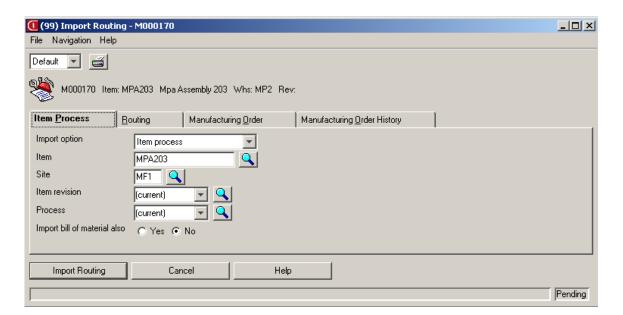


Figure 4-7. Import Routing card file - Item Process card

You can query routing IDs and versions to find the routing information you want to import.

Select Yes for the Import bill of material also attribute if you want to import the bill of material with the routing. The Import Bill of Material option uses the same data to import the bill of material as you entered to import the routing.

Click Import Routing. A Please Confirm prompt opens.



Figure 4-8. Please Confirm Import Routing prompt

Click Confirm Post to import the operations into the manufacturing order.

### Creating and deleting milestones

You can create and delete milestones in M.O. Operations. There are two types of milestone: job shop and flow shop. Both types of milestone reporting update the quantity completed at each operation based on the milestone transaction. The job shop type of milestone allows scrap and actual labor or machine time to be tracked by operation. The flow shop type of milestone automatically calculates labor and overhead based on standards and allows scrap to be tracked.

#### **Creating milestones**

The following procedure assumes that you want to create a milestone for a manufacturing order operation. In the Manufacturing Orders list window, select the manufacturing order that contains operations for which you want to create a milestone group. Select M.O. Operations on the Display menu and the M.O. Operations list window opens. Select an operation to begin the milestone group and select the Create Milestone option on the Maintain menu. The Create Milestone dialog opens.



Figure 4-9. Create Milestone dialog

Select the Ending operation and the type of milestone to create. Click Continue to add the milestone to the operation.

#### **Deleting milestones**

The following procedure assumes that you want to delete a milestone for a manufacturing order operation. In the Manufacturing Orders list window, select the manufacturing order that contains an operation for which you want to delete a milestone. Select M.O. Operations on the Display menu and the M.O. Operations list window opens. Select the M.O. operation and Delete Milestone option on the Maintain menu. A Confirm prompt opens.

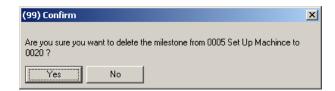


Figure 4-10. Confirm Delete Milestone prompt

Click Yes to delete all of the milestones in the milestone group from the operation.

### **Printing shop packets**

You can print shop packets for single or multiple orders and include a Shop Packet Summary List and, if you want, one or more of the following documents:

- Shop Packet Worksheets
- Material Pick List
- · Labor Tickets
- · Receiving Tickets.

The Shop Packet Summary List lists the manufacturing orders for which shop packets are printed. There are printing options for each of the report types: worksheets, pick lists, labor tickets, and receiving tickets.

Before printing shop packets, you can set you preferences for when and how you most commonly want the shop packets to print by selecting Preferences ... on the Customize menu in Manufacturing Orders.

You can print shop packets when you create the manufacturing order or using the Shop Packet host report in Manufacturing Orders.

# Setting manufacturing order preferences

You can set preferences for how XA displays information in objects. Preferences override the default settings from the questionnaire responses you entered during application tailoring.

Use Manufacturing Order Preferences to change the print options when you create manufacturing orders and print shop packets. These choices override the default settings on the Create Manufacturing Order dialog and how OBPM prints shop packets.

**Note:** Public preference allows an administrator to define default preferences that apply to all users. If you do not set your own preference, the default will be (public preference). This value is set by the administrator, unlike (system default).

For general information about browser preferences, see the *Infor ERP XA Browser Concepts Guide*.

If you want shop packets to print when OBPM creates a manufacturing order, select the Print shop packets for M.O. create transactions attribute on the General card of the Preferences card file for Manufacturing Orders, MRP Recommendations, and Reorder Recommendations.

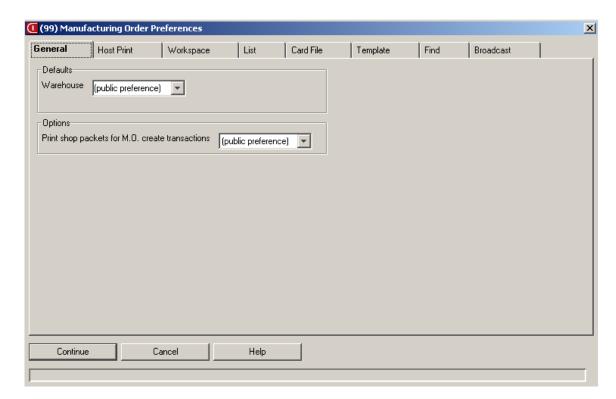


Figure 4-11 shows the General card in the Manufacturing Order Preferences card file.

Figure 4-11. Manufacturing Order Preferences card file - General card

Select Yes if you usually print shop packets as you create manufacturing orders. The value of Yes defaults on the Create Manufacturing Order dialog for the Print shop packet at M.O. release attribute. You can change the value on the Create Manufacturing Order dialog, if necessary.

Changing the value for the Print shop packet for M.O. create transactions attribute in the Manufacturing Order Preferences card file, also changes the value of this attribute in MRP Recommendations and Reorder Recommendations.

If you do not set preferences to print shop packets when you create a manufacturing order, you can print shop packets any time using Shop Packet host report.

If you want to specify how worksheets, pick lists, labor tickets, and receiving tickets are printed, select the Host Print card in the Manufacturing Order Preferences card file.

Select (public preference) or see the following sections that describe the preferences you can apply on the Host Print card of the Manufacturing Order Preferences card file. After you select your preferences, click Continue.

### **Setting worksheet preferences**

Select the Worksheet tab and then General tab on the Host Print card.

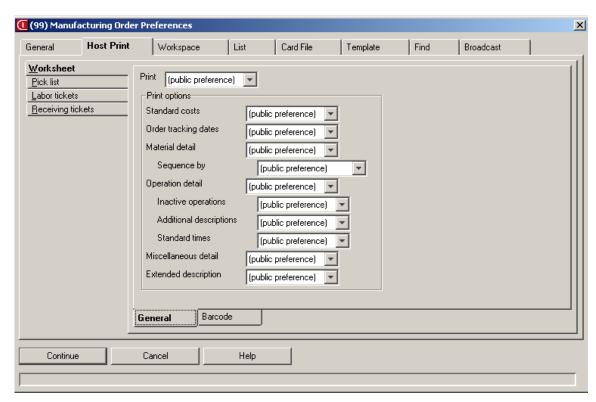


Figure 4-12. Manufacturing Order Preferences card file - Host Print card - Worksheet tab - General tab

Select the value that you want XA to default for the following attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Standard costs	Print the standard order projected costs.
Order tracking dates	Print order tracking dates.
Material detail	Print material details.
Sequence by	Sequence material details by warehouse location, item number, or user sequence.
Operation detail	Print operation details.
Inactive operations	Include inactive operations.
Additional descriptions	Print additional descriptions for operations.
Standard times	Print standard scheduling times for operations.
Miscellaneous detail	Print miscellaneous detail.
Extended description	Print the description available in the EPDM item process for parent and components, in addition to the standard item revision description.

Table 4-1. Manufacturing Order Preferences card file - Host Print card - Worksheet tab - General tab options

Select the Barcode tab on the Worksheet tab.

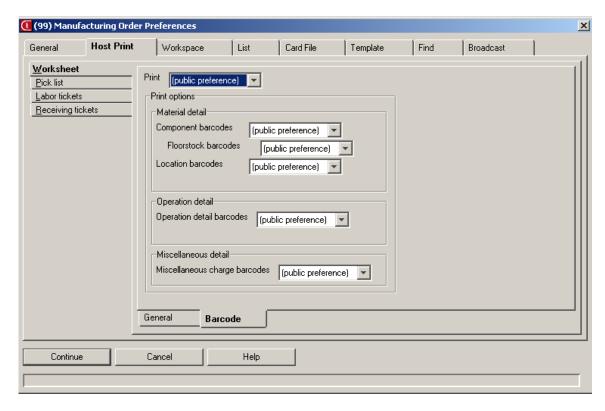


Figure 4-13. Manufacturing Order Preferences card file - Host Print card - Worksheet tab - Barcode tab

Select the value that you want XA to default for the following attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Component barcodes	Print component barcodes.
Floorstock barcodes	Include barcodes for floorstock components.
Location barcodes	Print barcodes for component locations.
Operation detail barcodes	Print operation detail barcodes.
Miscellaneous charge barcodes	Print barcodes for miscellaneous charges.

Table 4-2. Manufacturing Order Preferences card file - Host Print card - Worksheet tab - Barcode tab options

**Note:** You can only select barcodes corresponding to types of data that you selected on the General tab.

# Setting pick list preferences

Select the Pick list tab and then General tab on the Host Print card.

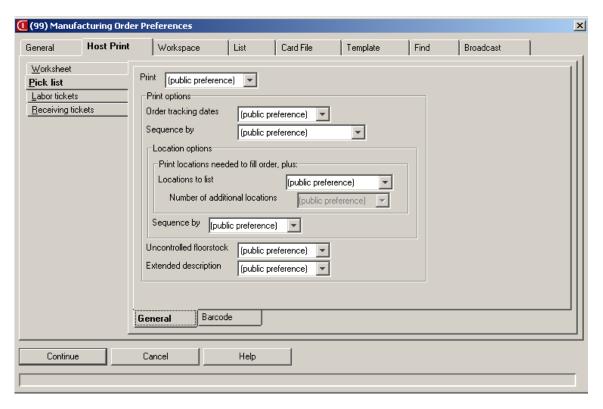


Figure 4-14. Manufacturing Order Preferences card file - Host Print card - Pick list tab - General tab

Select the value that you want XA to default for the following Pick List attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Order tracking dates	Print order tracking dates.
Sequence by	Sequence components on the Pick List by order, stocking location, then item number, or by item and stocking location only.
Locations to list	Print locations required to fill order and either additional locations, low quantity locations, all locations, or no other locations.
Number of additional locations	Enter the number of additional locations, when additional locations is selected.
Sequence by	Sequence locations by location or FIFO order.
Uncontrolled floorstock	Include uncontrolled floorstock components on the Pick List.
Extended description	Print the description available in the EPDM item process for parent and components, in addition to the standard item revision description.

Table 4-3. Manufacturing Order Preferences card file - Host Print card - Pick list tab - General tab options
Select the Barcode tab on the Pick list tab.

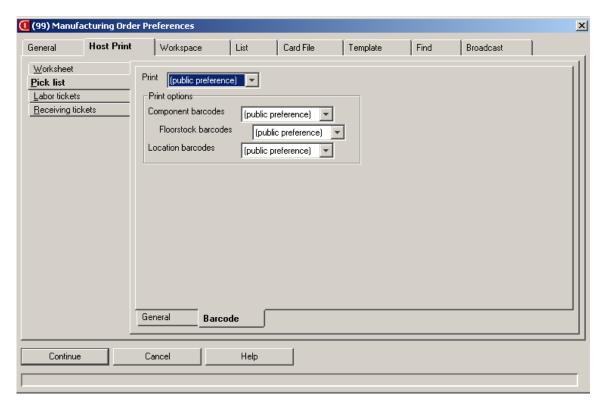


Figure 4-15. Manufacturing Order Preferences card file - Host Print card - Pick list tab - Barcode tab

Select the value that you want XA to default for the following Pick List attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Component barcodes	Print component barcodes.
Floorstock barcodes	Print barcodes for floorstock components.
Location barcodes	Print location barcodes.

Table 4-4. Manufacturing Order Preferences card file - Host Print card - Pick list tab - Barcode tab options

### **Setting labor ticket preferences**

Select the Labor tickets tab on the Host Print card.

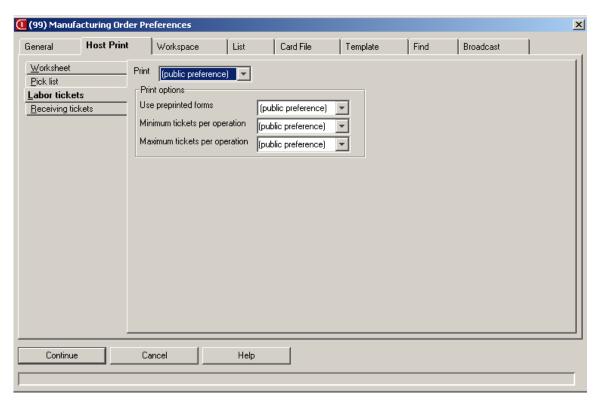


Figure 4-16. Manufacturing Order Preferences card file - Host Print card - Labor tickets tab

Select the value that you want XA to default for the following Labor Ticket attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Use preprinted forms	Use preprinted forms for labor tickets.
Minimum tickets per operation	Print a minimum number of tickets for each selected operation.
Maximum tickets per operation	Print a maximum number of tickets for each selected operation.

Table 4-5. Manufacturing Order Preferences card file - Host Print card - Labor tickets tab options

### Setting receiving ticket preferences

Select the Receiving tickets tab on the Host Print card.

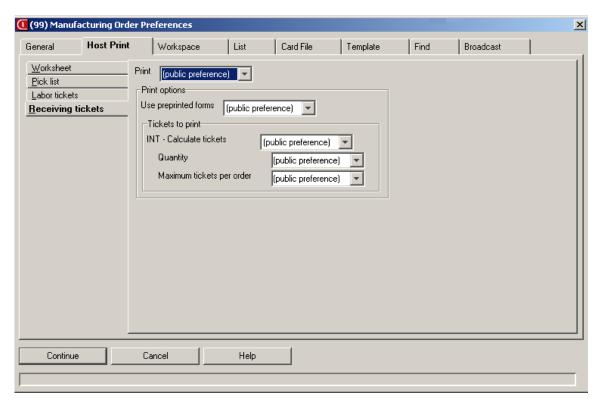


Figure 4-17. Manufacturing Order Preferences card file - Host Print card - Receiving tickets tab

Select the value that you want XA to default for the following Receiving Ticket attributes when creating manufacturing orders using the Create Manufacturing Order dialog or the Shop Packet host report:

Option	Use to
Use preprinted forms	Use preprinted forms for receiving tickets.
INT - Calculate tickets	Specify either tickets per order or items per ticket.
Quantity	Enter the number of receiving tickets per order or items per receiving ticket.
Maximum tickets per order	Specify a maximum number of tickets to print per order.

Table 4-6. Manufacturing Order Preferences card file - Host Print card - Receiving tickets tab options

### Printing a shop packet

The following procedure assumes you want to print a shop packet for an existing manufacturing order. In the Manufacturing Orders list window, select specific manufacturing order(s) or create a subset to define the manufacturing orders for which you want to print shop packets. Select Host Print ... on the File menu. The Manufacturing Order Host Reports window opens. Select the Shop Packet tab and Print attribute. Enter the description, subset, and sort to select the manufacturing orders for which you want to print a shop packet.

#### Printing a worksheet

Select the Worksheet tab.

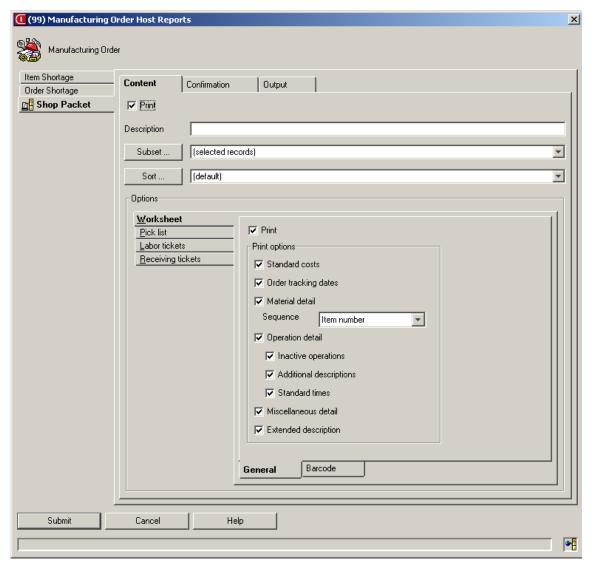


Figure 4-18. Manufacturing Order Host Reports window - Shop Packet tab - Worksheet tab - General tab

Select the value that you want for the following attributes:

Option	Use to
Standard costs	Print the standard order projected costs.
Order tracking dates	Print order tracking dates.
Material detail	Print material details.
Sequence	Sequence material details by warehouse location, item number, or user sequence.
Operation detail	Print operation details.
Inactive operations	Include inactive operations.
Additional descriptions	Print additional descriptions for operations.
Standard times	Print standard scheduling times for operations.
Miscellaneous detail	Print miscellaneous detail.
Extended description	Print the description available in the EPDM item process for parent and components, in addition to the standard item revision description.

Table 4-7. Manufacturing Order Host Reports window - Shop Packet tab - Worksheet tab - General tab options

Select the Barcode tab.

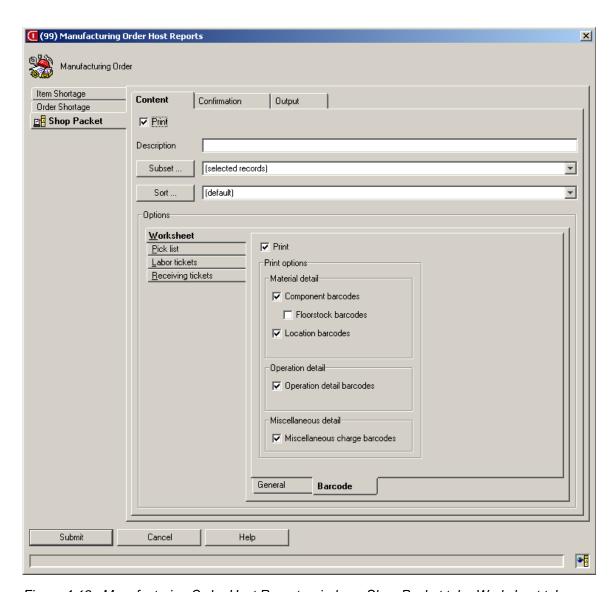


Figure 4-19. Manufacturing Order Host Reports window - Shop Packet tab - Worksheet tab - Barcode tab

Select the value that you want for the following attributes:

Option	Use to
Component barcodes	Print component barcodes.
Floorstock barcodes	Print barcodes for floorstock components.
Location barcodes	Print location barcodes.
Operation detail barcodes	Print operation detail barcodes.
Miscellaneous charge barcodes	Print barcodes for miscellaneous charges.

Table 4-8. Manufacturing Order Host Reports window - Shop Packet tab - Worksheet tab - Barcode tab options

**Note:** You can only select barcodes corresponding to types of data that you selected on the General tab.

#### Printing a pick list

If not already selected, select the Shop Packet tab and Print attribute. Enter the description, subset, and sort to select the manufacturing orders for which you want to print a shop packet. Select the Pick list tab.

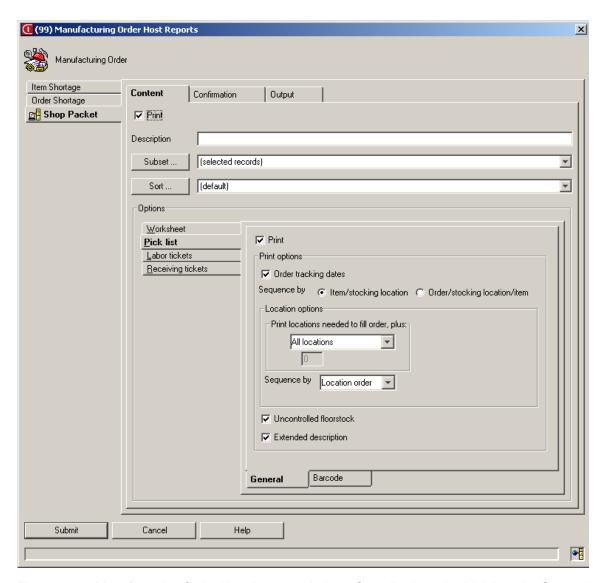


Figure 4-20. Manufacturing Order Host Reports window - Shop Packet tab - Pick list tab - General tab

Select the value that you want for the following attributes:

Option	Use to
Order tracking dates	Print order tracking dates.
Sequence by	Sequence components on the Pick List by order, stocking location, then item number, or by item and stocking location only.
Print locations needed to fill order, plus:	Print locations required to fill order and either additional locations, low quantity locations, all locations, or no other locations.
Number of additional locations	Enter the number of additional locations, when Additional locations: is selected.
Sequence by	Sequence locations by location or FIFO order.
Uncontrolled floorstock	Include uncontrolled floorstock components on the Pick List.
Extended description	Print the description available in the EPDM item process for parent and components, in addition to the standard item revision description.

Table 4-9. Manufacturing Order Host Reports window - Shop Packet tab - Pick list tab - General tab options

Select the Barcode tab.

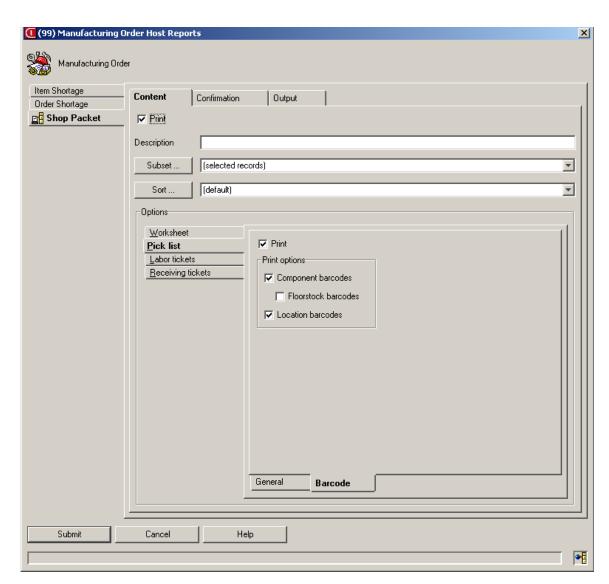


Figure 4-21. Manufacturing Order Host Reports window - Shop Packet tab - Pick list tab - Barcode tab

Select the value that you want for the following attributes:

Option	Use to
Component barcodes	Print component barcodes.
Floorstock barcodes	Print barcodes for floorstock components.
Location barcodes	Print location barcodes.

Table 4-10. Manufacturing Order Host Reports window - Shop Packet tab - Pick list tab - Barcode tab options

#### **Printing labor tickets**

If not already selected, select the Shop Packet tab and Print attribute. Enter the description, subset, and sort to select the manufacturing orders for which you want to print a shop packet. Select the Labor tickets tab.

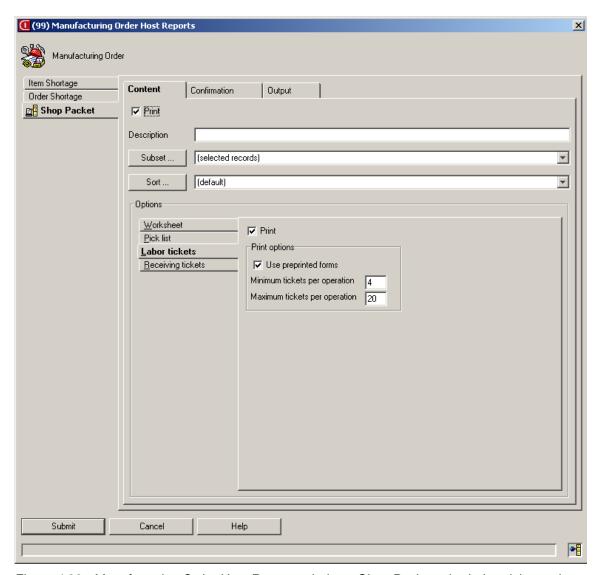


Figure 4-22. Manufacturing Order Host Reports window - Shop Packet tab - Labor tickets tab

Select the value that you want for the following attributes:

Option	Use to
Use preprinted forms	Use preprinted forms for labor tickets.
Minimum tickets per operation	Print a minimum number of tickets for each selected operation.
Maximum tickets per operation	Print a maximum number of tickets for each selected operation.

Table 4-11. Manufacturing Order Host Reports window - Shop Packet tab - Labor tickets tab options

#### **Printing receiving tickets**

If not already selected, select the Shop Packet tab and Print attribute. Enter the description, subset, and sort to select the manufacturing orders for which you want to print a shop packet. Select the Receiving tickets tab.

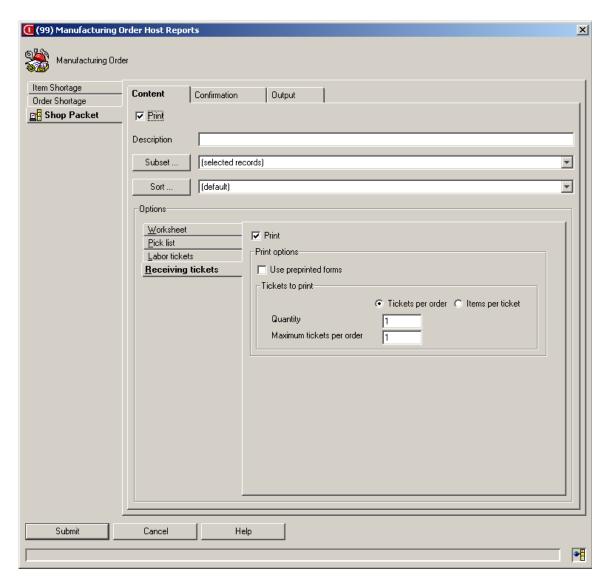


Figure 4-23. Manufacturing Order Host Reports window - Shop Packet tab - Receiving tickets tab

Select the value that you want for the following attributes:

Option	Use to
Use preprinted forms	Use preprinted forms for receiving tickets.
Tickets to print	Specify either tickets per order or items per ticket.
Quantity	Enter the number of receiving tickets per order or items per receiving ticket.
Maximum tickets per order	Specify a maximum number of tickets to print per order.

Table 4-12. Manufacturing Order Host Reports window - Shop Packet tab - Receiving tickets tab options

Click Submit to print the Shop Packet report.

#### **Generating worklists**

The Generate Work List host job produces data and, if you want, prints reports. When you generate work lists, the manufacturing open operations records are updated with the latest priority information, such as critical ratio, slack time per operation, order due date, and operation start and completion dates. Work lists reflect changes caused by order release, file maintenance, shop activity update, or order closeout.

You run the Generate Work List host job in the Manufacturing Orders or Sites objects to maintain and prioritize the operations for shop floor control. If EPDM is installed, you can generate work lists for one or more sites.

The following procedure assumes you want to generate a work list in Manufacturing Orders. EPDM is installed. In the Manufacturing Orders list window, select the manufacturing orders for which you want to generate a work list. Select Host Jobs ... on the File menu. The Manufacturing Order Host Jobs window opens. Select the Generate Work List tab and Execute attribute.

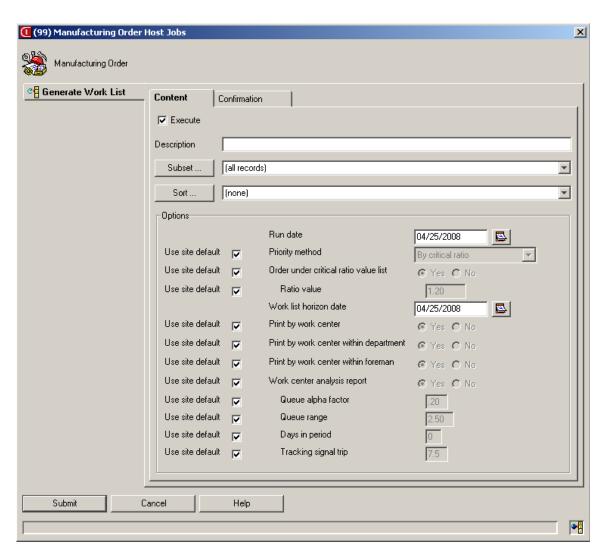


Figure 4-24. Manufacturing Order Host Jobs window- Generate Work List tab - EPDM

Select options on the Generate Work List window to specify run date, priority method, and other options. In EPDM, each site contains default values that you can use for each of the options on the Generate Work List job. If you select [Use site default] for an option, XA retrieves the default value for the option for each site included in the submitted job. If you select a specific value rather than [Use site default], XA uses that value for every site included in the host job.

For the non-EPDM version, XA displays as defaults the values used the last time that work lists were generated.

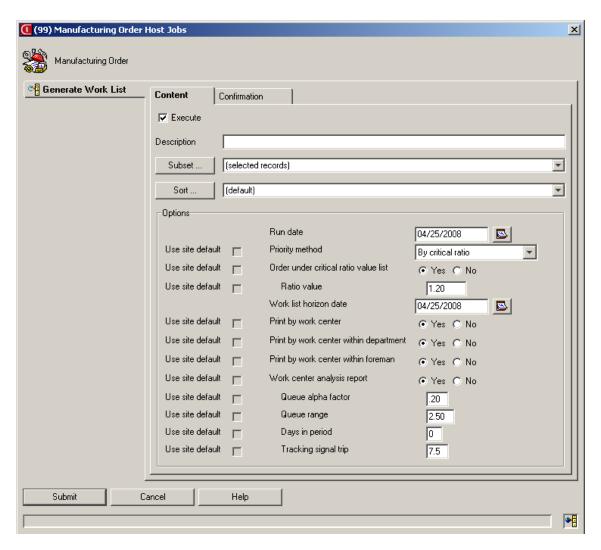


Figure 4-25. Manufacturing Order Host Jobs window - Generate Work List tab - PDM

Click Submit. A Confirmation prompt opens.



Figure 4-26. Confirmation Generate Work List prompt

Click Yes to generate the work list.

# Chapter 5. Completing and Closing Manufacturing Orders

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#### Overview

You use OBPM to track the manufacturing order through a process in which the order is designated as material received, material complete, labor complete, and closed. The manufacturing order might also be reopened, canceled and activated.

*Order status and Operation status attributes.* You can use these attributes to help you check the progress of manufacturing orders through the major procedures defined for the orders.

The Manufacturing Orders object contains options that enable you to complete the manufacturing order labor and material processes associated with each order. Some of the options you must enter in sequence. For example, you can process a manufacturing order Normal close only after the labor complete, receipt of material, and material complete functions have been processed for the order.

The following options on the Maintain menu in Manufacturing Orders allow you to complete or close orders:

Receipt of Material option. This option processes a manufacturing receipt for the order.

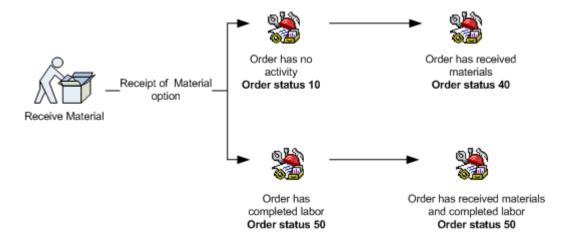


Figure 5-1. Receipt of Material option

If you use this the Receipt of Material option on:

- A manufacturing order that has no activity, the Order status changes from 10 Released, no activity to 40 Started.
- A manufacturing order for which labor is complete, the Order status changes only when order is designated material complete.

*Material Complete option.* This option marks the Order status as Material complete.

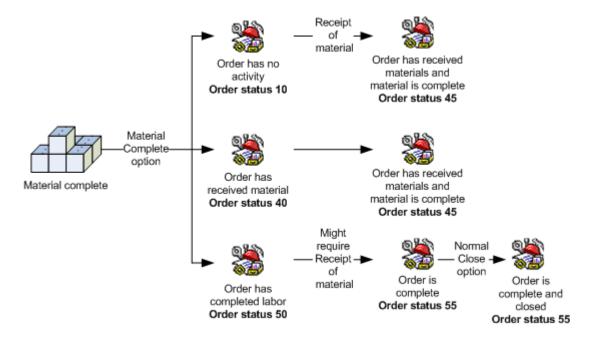


Figure 5-2. Material Complete option

If you use the Material Complete option on:

- A manufacturing order that has no activity, the Order status changes from 10 Released, no activity to 45 - Material complete. OBPM requires that you enter the receipt of material as part of the Material Complete option.
- A manufacturing order that has started, the Order status changes from 40 Started to 45 -Material complete.
- A manufacturing order for which labor is complete, the Order status changes from 50 Labor complete to 55 - Complete. OBPM requires that you enter the receipt of material as part of the Material Complete option, if this transaction has not yet been generated.

Labor Complete option. This option marks the Order status as Labor complete.

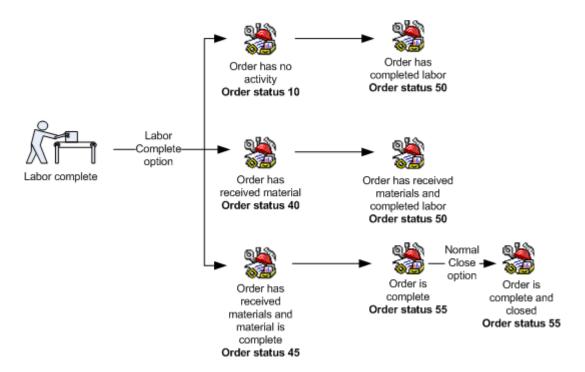


Figure 5-3. Labor Complete option

If you use the Labor Complete option on:

- A manufacturing order that has no activity, the Order status changes from 10 Released, no activity to 50 - Labor complete.
- A manufacturing order that has started, the Order status changes from 40 Started to 50 -Labor Complete.
- A manufacturing order that has received material and material is complete, the Order status changes from 45 Material Complete to 55 Complete.

**Note:** Labor Complete does not apply any actual labor and overhead hours / cost to the manufacturing order. All shop activity reporting must be processed in Production Control and Costing (PC&C) or Production Monitoring and Control (PMC) before selecting Labor Complete in OBPM.

**Normal Close option.** This option closes an order that has been reported as having all material and labor as complete. The Order status is 55 - Complete.

If you use the Normal Close option on a manufacturing order that has an Order status that is less than 55 - Complete, OBPM requires that you enter the transactions that are missing before you can close the manufacturing order. You use the Force Close option to close an order without entering the transactions and changing the Order status to 55 - Complete.

**Force Close option.** This option closes the order despite the Order status. You may process a Force Close option with any of the manufacturing orders unless the Order status is 99 - Cancelled.

Reopen option. This option reopens (or reverses the close command) but does not activate the order.

**Cancel option.** This option prevents XA users processing any transactions for an order. You use this option only for an order that has no activity (Order status is 10 - Released, no activity). The Order status changes from 10 - Released, no activity to 99 - Cancelled.

**Activate option.** This option reactivates manufacturing orders that are canceled (Order status is 99 - Cancelled). If you are activating a canceled order, the Order status changes from 99 - Cancelled to 10 - Released, no activity.

You can use the Activate option to reset orders that have an Order status of 45 - Material complete, 50 - Labor complete, or 55 - Complete; back to Order status 40 - Started, which indicates the order is started and labor and material transactions are processed.

Use the following objects to view manufacturing order history information after the order is purged:

**Manufacturing Order History.** This object contains information related to closed manufacturing orders.

- **M.O.** History Components. This object contains a list of all the components of the parent item on the selected manufacturing order history record.
- **M.O. History Operations.** This object contains a list of all operations related to the item on the selected manufacturing order.
- **M.O. History Miscellaneous Charges.** This object contains a list of all miscellaneous charges related to the item on the selected manufacturing order.

**Labor Activity Transaction History.** This object contains information about the labor transactions associated with a manufacturing order that is purged. OBPM keeps labor transaction history with manufacturing order histories when XA closes and purges the order through Inventory Management (IM) or PC&C.

### **Completing manufacturing orders**

As work progresses for a manufacturing order, you record and track the progress of the order using the Order Status attribute in Manufacturing Orders and the Operation status attribute in M.O. Operations. The following sections describe viewing and maintaining Order status and viewing Operation status.

Operation status changes only when the operation is made inactive or when labor is reported against the operation. Labor is reported against the operation in System i, PC&C, or PMC.

## Viewing manufacturing orders

You can use the Order status in Manufacturing Orders and Operation status in M.O. Operations to check the progress of manufacturing orders.

The following Order status values help you check the progress of manufacturing orders:

Order status	Description
00 - Not Released	Not yet released.
10 - Released, no activity	Released, but no activity reported.
40 - Started	Manufacturing order started. At least one material, outside operation, labor, machine, or miscellaneous charge reported.
	Production schedule (Repetitive Production Management (REP)); line primed.
45 - Material complete	PC&C has not reported the order as complete (outside operations, labor, machine and miscellaneous charges). IM material receipt to stock has been reported as complete. (Not applicable to REP.)
50 - Labor complete	PC&C has reported the order as complete (outside operations, labor, machine, and miscellaneous charges). IM material receipt to stock has not been reported as complete. (Not applicable to REP.)
55 - Complete	Manufacturing order complete; includes all material, outside operations, labor, machine, and miscellaneous charges.
	Production schedule complete (REP); last transaction has been reported.
99 - Cancelled	Order canceled; no activity has been reported. (Not applicable to REP.)

Table 5-1. Order status values

You can view the Order status for each manufacturing order using the General view on the Manufacturing Orders list window. Use the Status view on the Manufacturing Orders list window to view information about the progress of the order such as hours remaining, the current operation, and the days off schedule.

The following Operation status values help you check the progress of manufacturing order operations:

Status	Description
00 - Inactive	The operation is inactive and not used in scheduling, costing, or reporting.
10 - No activity reported	The operation is planned, but no activity is reported.
20 - Material moved in	Material has been moved to this operation.
30 - Activity reported	Labor, machine, or outside operation activity has been reported.
40 - Operation complete	Operation has been reported as complete.
50 - Material moved out	Material has been moved from this operation to the next location or next operation.

Table 5-2. Operation status values

You can view the Operation status for each manufacturing order using the Operations Summary view on the Manufacturing Orders list window. This view shows information about the progress of the operations such as number of operations that are complete and the quantity complete in the previous and current operation.

In the M.O. Operations object, you can view operations for a selected manufacturing order using views provided. For example, you can view date, machine hour, labor hour, and completion status information by selecting an appropriate view.

You can view M.O. operation information in other objects to examine the operation information that relates to that object only. For example, select M.O. Operations Where-used on the Display menu in the Facilities object. The M.O. Operations Where-Used list window opens showing the current Operation status of the operations for a production facility.

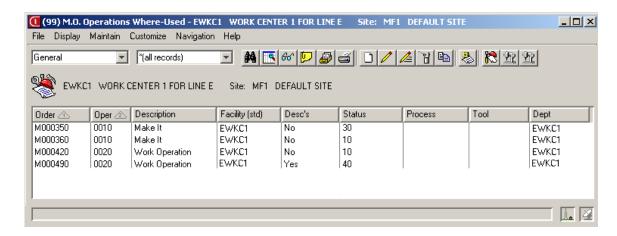


Figure 5-4. M.O. Operations Where-Used list window

OBPM lists individual operations in the M.O. Operations Where-Used list window in order of Manufacturing order number followed by the Operation sequence at the facility, Description, Standard facility ID, and current Operation status.

To see operations in the same sequence as the PC&C production facility inquiry, select the following values using options on the Customize menu:

Option	Value
View	Worklist.
Subset	Active, not complete.
Sort	By work list sequence.

Table 5-3. Options to use to sequence operations as in the PC&C production facility inquiry

#### Receiving material

When a manufacturing order is released, it has an Order status of 10 - Released, no activity. If labor is complete, the order has an Order status of 50 - Labor complete. When you receive to stock the finished item produced in the manufacturing order, you can record the receipt using the Receipt of Material option on the Maintain menu in Manufacturing Orders.

The following procedure assumes you want to enter a receipt of material for a manufacturing order that has an Order status of 10 - Released, no activity. Select the order in the Manufacturing Orders list window. Select Receipt of Material on the Maintain menu and the Receipt of Material window opens showing the Receipt of Material tab.

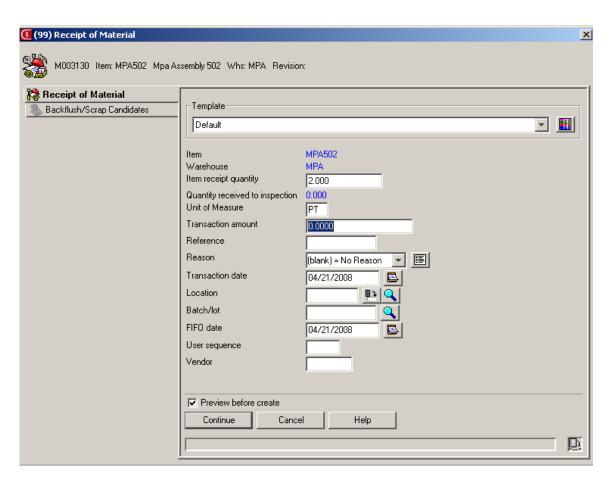


Figure 5-5. Receipt of Material window - Receipt of Material tab

Enter the information you require to receive the material. Click Continue. If you deselect Preview before create, when you click Continue, the OBPM defaults the backflush/scrap candidates information and receives the material.

If you select Preview before create, the Backflush/Scrap Candidates tab opens.

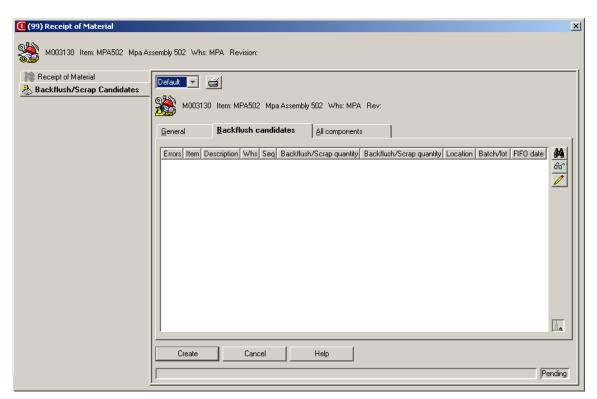


Figure 5-6. Receipt of Material window - Backflush/Scrap Candidates tab - Backflush candidates tab

Use the Change button to maintain any backflush/scrap candidates or click the All components tab to view details for all components. Click Create, when you finish changing the backflush/scrap candidates.

OBPM generates receive production item (RM) transactions. The Order status changes from 10 - Released, no activity to 40 - Started. If this order is already complete for labor, then the Order status remains at 50 - Labor complete.

#### Creating discrete allocations automatically

If you select either Receipt of Material or Material Complete, you can create a discrete allocation to the customer order line item release. The following must be true for the discrete allocation to be created:

- · Automatic Discrete Allocation is active,
- The manufacturing order is linked to a customer order,
- The manufacturing order is flagged for automatic discrete allocations,
- The warehouse is controlled and the item allows discrete allocations, and
- The quantity allocated is the lesser of:
  - The open to pick quantity on the line item release minus the quantity already discretely allocated to the line item release, or
  - The quantity received on the receive production item (RM) transaction.

If the Allocation type attribute for the C.O. line item release is 0 - None (do not allocate until the customer order pick list is printed) or 1 - Item warehouse (allocate only at the item warehouse level), it is set to 3 - Auto discrete. If the Allocation type for the line item release is 0 - None, the customer order pick list allocated quantity in the item warehouse is increased by the quantity discretely allocated.

**Note:** You can link a manufacturing order to a customer order when you create a manufacturing order using Customer Demand or during maintenance on a manufacturing order. For more information about linking a manufacturing order to a customer order, see "Linking manufacturing orders to customer orders" on page 4-3.

#### **Completing material**

When a manufacturing order is released, it has an Order status of 10 - Released, no activity. If the manufacturing order has received material, it has an Order status of 40 - Started. If labor is complete, the order has an Order status of 50 - Labor complete. When material is complete for the manufacturing order, you record the order as material complete using the Material Complete option on the Maintain menu in Manufacturing Orders.

The following procedure assumes you want to enter a Material Complete option for a manufacturing order that has an Order status of 40 - Started. Select the order in the Manufacturing Orders list window.

Select Material Complete on the Maintain menu and the Material Complete window opens showing the Material Complete tab.

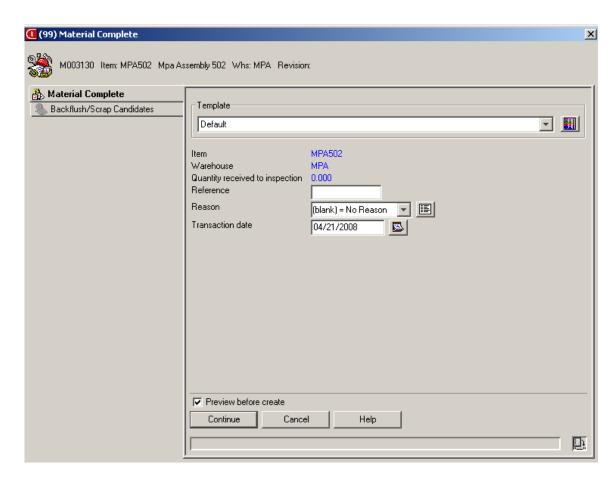


Figure 5-7. Material Complete window - Material Complete tab

If you select an order that has an Order status of 10 - Released, no activity or 50 - Labor complete (and no receipt of material), the material complete window opens showing the Receipt of Material tab. OBPM requires that you enter the receipt of material before you set the Order status to 45 - Material complete. Enter or accept information on the Receipt of Material and Backflush/Scrap Candidates tab before continuing with the Material Complete tab. For more information about entering a receipt of material, see "Receiving material" on page 5-7.

Enter the information you require to complete material on the Material Complete tab. Click Continue. If you do deselect Preview before create, when you click Continue, the OBPM defaults the backflush/scrap candidates information and makes the material complete.

(99) Material Complete X M003130 Item: MPA502 Mpa Assembly 502 Whs: MPA Revision: A Material Complete Default 🔻 🚄 🚴 Backflush/Scrap Candidates M003130 Item: MPA502 Mpa Assembly 502 Whs: MPA Rev Scrap candidates All components Errors | Item | Description | Whs | Seq | Backflush/Scrap quantity | Backflush/Scrap quantity | Location | Batch/lot | FIFO date | 1 Create Cancel Help Pending

If you select Preview before create, the Backflush/Scrap Candidates tab opens.

Figure 5-8. Material Complete window - Backflush/Scrap Candidates tab - Scrap candidates tab

Use the Change button to maintain any backflush/scrap candidates or click the All components tab to view details for all components.

If you select a backflush/scrap candidate and click the Change button, the Change Backflush/ Scrap Candidates card file opens. If you change the Override quantity attribute and click Update, the Material Complete option processes the planned issue transactions that are required for controlled floor stock items.

Click Create, when you finish changing the backflush/scrap candidates.

OBPM generates receive production item (RM) transactions. The Order status changes from 40 - Started to 45 - Material complete.

If the Order status was 10 - Released, no activity, entering the Receipt of Material and Material Complete option changes the Order status to 45 - Material complete. If the Order status was 50 - Labor complete, then the Order status changes to 55 - Complete.

As discussed in "Creating discrete allocations automatically" on page 5-9, when you select either Receipt of Material or Material Complete, you can create a discrete allocation to the customer order line item release.

### **Competing labor**

When a manufacturing order is released, it has an Order status of 10 - Released, no activity. If the manufacturing order has started, it has an Order status of 40 - Started. If the manufacturing order is material complete, it has an Order status of 45 - Material complete. When labor is complete for the manufacturing order, you record the order as labor complete using the Labor Complete option on the Maintain menu in Manufacturing Orders.

The following procedure assumes you want to enter a Labor Complete option for a manufacturing order that has an Order status of 45 - Material complete. Select the order on the Manufacturing Orders list window. Select Labor Complete on the Maintain menu and the Labor Complete window opens showing the Labor Complete tab.

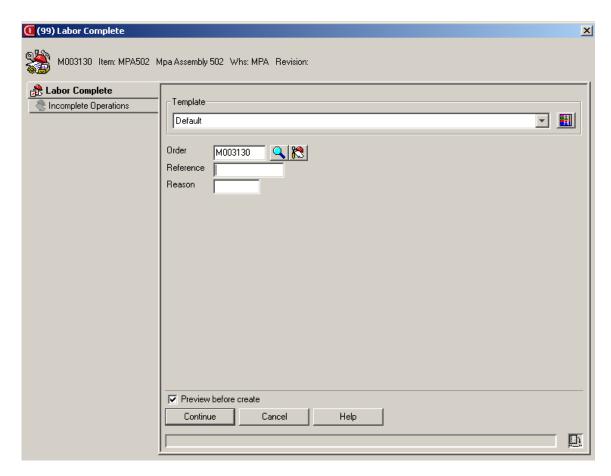


Figure 5-9. Labor Complete - Labor Complete tab

Enter the information you require to receive the material on the Labor Complete tab. Click Continue. If you deselect Preview before create when you click Continue, the OBPM defaults the incomplete operations information and makes the labor complete.

(99) Labor Complete X M003130 Item: MPA502 Mpa Assembly 502 Whs: MPA Revision: 🚵 Labor Complete Default 🔻 📹 🐧 Incomplete Operations M003130 Item: MPA502 Mpa Assembly 502 Whs: MPA Rev: Incomplete operations <u>G</u>eneral All operations Oper Complete Scrap Remaining Completion qty Description Facility Status Errors Νo 0010 ASSEMBLE WK20 10 0.000 0.000 2.000 2.000 66^ 0020 ASSEMBLE WK20 0.000 2.000 2.000 Νo 10 0.000 2.000 2.000 Νo 0030 ASSEMBLE WK20 10 0.000 0.000 Νo ASSEMBLE WK20 10 0.000 0.000 2.000 2.000 Help Cancel Create Pending

If you select Preview before create, the Incomplete Operations tab opens.

Figure 5-10. Labor Complete - Incomplete Operations tab - Incomplete operations tab

Use the Change button to maintain the incomplete operations or click the All operations tab to view details for all operations. Click Create, when you finish changing the operations.

The Order status changes from 45 - Material complete to 55 - Complete.

If the Order status was 10 - Released, no activity or 40 - Started, entering the Labor Complete option changes the Order status to 50 - Labor complete.

#### Closing manufacturing orders

Use the Normal Close option on manufacturing orders that have labor and material complete. If you enter Normal Close on an order that is not both Labor and Material Complete, OBPM provides the required options you need to enter to set the order to an Order status of 55 - Complete. For example, OBPM prompts you to enter information for one or more of Labor Complete, Receipt of Material, and Material Complete options until the Order status is 55 - Complete.

For example, Figure 5-11 shows a Normal Close window for a manufacturing order, which has an Order status of 10 - Released, no activity.

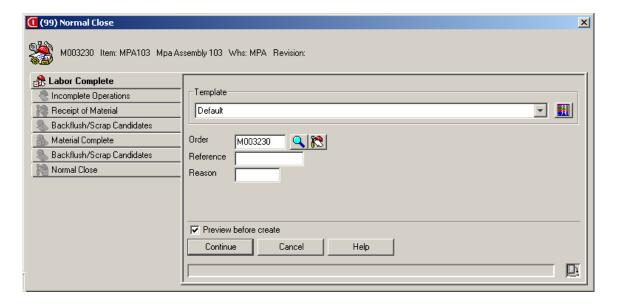


Figure 5-11. Normal Close window - Labor Complete tab

You must enter Labor Complete, Receipt of Material, and Material Complete information before you get to the last tab and close the manufacturing order.

If the manufacturing order is at Order status 40 - Started, 45 - Material Complete, or 50 - Labor complete; OBPM provides the appropriate tabs for the information you must enter before you can close the order. For more information about entering Order status information, see "Completing manufacturing orders" on page 5-5.

Use the Force Close option to close manufacturing orders despite of the Order status. You can force close a manufacturing order of any Order status. For example, you can force close a manufacturing order that has only one operation complete and has outstanding operations remaining. In OBPM, you can force close a canceled order. An order that has been force-closed does not change Order status.

You can use the Reopen option to open orders that XA users previously closed or force-closed.

To purge closed manufacturing orders, use PC&C or IM menu options. For more information about PC&C or IM, see the *Production Control and Costing User's Guide* or the *Inventory Management User's Guide*.

### Closing a manufacturing order - normal close

The following procedure assumes you want to close a manufacturing order with an Order status of 55 - Complete. Select the manufacturing order in the Manufacturing Orders list window. The order cannot already be closed. Select Normal Close on the Maintain menu, the Normal Close window and a Confirm prompt opens.

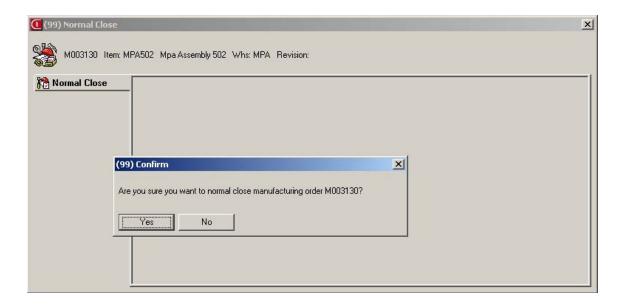


Figure 5-12. Confirm Normal Close prompt

Click Yes to close the manufacturing order.

### Closing a manufacturing order - force close

The following procedure assumes you want to force close a manufacturing order with an Order status of 10 - Released, no activity. Select the manufacturing order in the Manufacturing Orders list window. The order cannot already be closed. Select Force Close on the Maintain menu. If the manufacturing order has an open quantity, a Messages prompt opens.

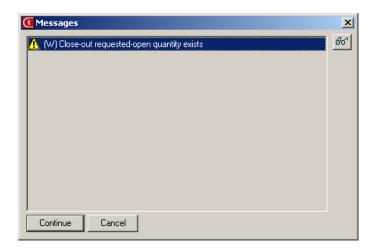


Figure 5-13. Messages Open quantity prompt

Click Continue and a Confirm prompt opens.

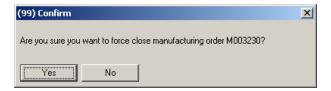


Figure 5-14. Confirm Force Close prompt

Click Yes to force close the order. The Order status does not change.

### Reopening a manufacturing order

You can reopen a manufacturing order that has been closed.

The following procedure assumes you want to reopen a closed manufacturing order. Select the order in the Manufacturing Orders list window and select the Reopen option on the Maintain menu. A Confirm prompt opens.

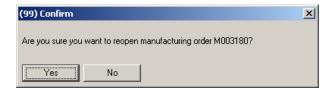


Figure 5-15. Confirm Reopen prompt

Click Yes to reopen the order. The Order status of the order does not change. Use the Activate option if you want the Order status to be 40 - Started.

#### Canceling a manufacturing order

For circumstances where a manufacturing order, with an Order status of 10 - Released, no activity is no longer required, you can use the Cancel option to change the Order status to 99 - Cancelled. You cannot add new information or detailed records to canceled manufacturing orders. You can cancel orders only if no activity has occurred on the order.

The following procedure assumes you want to cancel a manufacturing order, which as an Order status of 10 - Released, no activity. Select the order in the Manufacturing Orders list window and select the Cancel option on the Maintain menu.

If reason tracking is active for maintenance history, enter a reason code in the Assign reason code dialog. Click Continue. A Confirm prompt opens.

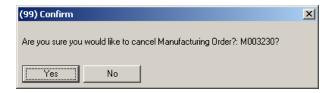


Figure 5-16. Confirm Cancel prompt

Click Yes to cancel the order. OBPM changes the Order status to 99 - Cancelled.

### Activating a manufacturing order

You can activate a closed order (Order status to 99 - Cancelled) to allow more activity to occur against it. The Order status is returned to 10 - Released, no activity, which indicates the order is released with no activity reported.

You also use the Activate option when the Order status is 45 - Material complete, 50 - Labor complete, or 55 - Complete and you want to change the Order status back to 40 - Started.

The following procedure assumes you want to reopen the manufacturing order that was previously cancelled or return the Order status to 40 - Started. Select the order in the Manufacturing Orders list window and select the Activate option on the Maintain menu. A Confirm prompt opens.



Figure 5-17. Confirm Activate prompt

Click Yes to activate the order. OBPM changes the Order status from 99 - Cancelled to 10 - Released, no activity or from an Order status of 45 - Material complete, 50 - Labor complete, or 55 - Complete to 40 - Started. If the order has been selected for closeout, the Activate option does not open the order. Use a Reopen option to open the order.

### **Printing the M.O. Transaction Register**

The M.O. Transaction Register reports all material and labor transactions, and any closeout transactions that XA performs during completing and closing orders. Transactions processed through IM, XA logs in the OBPM Order Close transaction file. PC&C transactions, such as labor complete and operations, XA writes to the OBPM Order Close transaction file. Use the Host Print ... option on the File menu in the Warehouses object to print the M.O. Transactions Register and clear the file for one or more warehouses.

The following procedure assumes you want to print an M.O. Transaction Register for a warehouse. Select the warehouse in the Warehouses list window. Select Host Print ... on the File menu. The Warehouse Host Reports window opens. Select the M.O. Transaction Register tab and the Print attribute.

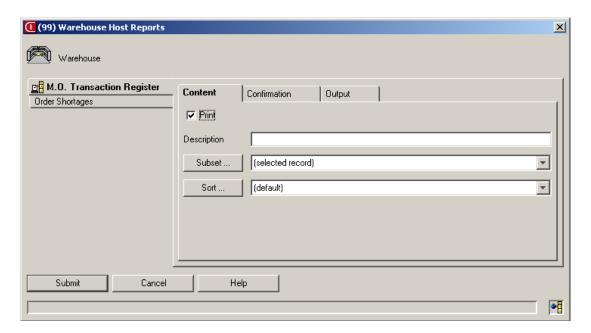


Figure 5-18. Warehouse Host Reports - M.O. Transaction Register tab

In this example, the Subset shows (selected record). Click Submit to print the report.

## Viewing purged manufacturing orders

To purge closed manufacturing orders, use PC&C or IM menu options. For more information about PC&C or IM, see the *Production Control and Costing User's Guide* or the *Inventory Management User's Guide*.

Use the Manufacturing Order History, M.O. History Components, M.O. History Operations, M.O. History Miscellaneous Charges, and Labor Activity Transaction History objects to view manufacturing orders that are purged.

On the Display menu in Manufacturing Order History, you can view the following information:

- Components: All the components for a selected purged manufacturing order.
- **Operations:** All the operations for a selected purged manufacturing order.
- Miscellaneous charges: All miscellaneous charges for a selected purged manufacturing order.
- Labor activity transaction history: All labor transactions for a selected purged manufacturing order.

OBPM also displays manufacturing order history information in other OBPM objects. You can view purged manufacturing orders for item warehouses and customer demand records, and Where-Used information for item warehouses and M.O. history operations:

Object	Display option
Customer Demand	Manufacturing Order History.
Item Warehouses	Item Warehouse Manufacturing Order History.
Item Warehouses	Manufacturing Order History Where-Used.
Facilities	M.O. Operation History Where-Used.

Table 5-4. Objects where you can view manufacturing order history information

**Manufacturing Order History.** This option shows the purged manufacturing order associated with the customer demand record.

*Item Warehouse Manufacturing Order History.* This option shows purged manufacturing orders associated with the item warehouse. This option is useful when you want to see information about past manufacturing orders for an item warehouse.

**Manufacturing Order History Where-Used.** This option shows all the purged manufacturing orders where the selected item warehouse was used as a component.

**M.O. Operation History Where-Used.** This option shows all the M.O. operations on purged manufacturing orders that relate to the selected production facility.

# Chapter 6. Working with Recommendations

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#### Overview

In Order-Based Production Management (OBPM) and depending on the applications you have installed, you can use Reorder Recommendations and MRP Recommendations to check the demand for manufacturing orders and to create manufacturing orders. For information about creating manufacturing orders, see Chapter 3, "Creating Manufacturing Orders."

As discussed in this chapter, you can use Reorder Recommendations and MRP Recommendations to create requisitions, purchase orders, and intersite orders.

Table 6-1summarizes the applications that must be installed with OBPM to create the following orders in OBPM:

Order	Requires	Uses
Requisition	PM	Order point items requiring replenishment in OBPM Reorder Recommendations.
	• PM, MRP	Planned orders in MRP Recommendations.
Purchase Order	• PM	Order point items requiring replenishment in OBPM Reorder Recommendations.
	• PM, MRP	Planned orders in MRP Recommendations.
Intersite Order	ISL/MISL	Order point items requiring replenishment in OBPM Reorder Recommendations.
	• ISL/MISL, MRP	Planned orders in MRP Recommendations.

Table 6-1. Applications required to create orders

OBPM provides a client alternative to reviewing and releasing Material Requirements Planning (MRP) orders and scheduled receipts. This chapter discusses briefly viewing and releasing MRP recommendations in MRP Recommendations. For detailed information about using MRP, see the *Material Requirements Planning User's Guide*.

#### Working with reorder recommendations

The Reorder Recommendations object shows items that need replenishment, the quantity that needs to be reordered and, depending on the applications you have installed, all the information required to release manufacturing orders, purchase orders, purchase requisitions, and intersite orders.

With OBPM, you can select one or more reorder recommendations and convert them to requisitions, purchase orders, and intersite orders. OBPM provides two ways to create orders using reorder recommendations:

- Using the Create Order or Mass Create Orders options on the Maintain menu of the Reorder Recommendations list window. The type of order you create depends on the Make/Buy - new status of the reorder recommendation.
- Using the create options available on the Generate Reorder Recommendations host job.

To work with the requisition and purchase order after you create them in Reorder Recommendations, use the Requisitions and Purchase Orders objects in Procurement Management (PM). At order release, Intersite orders are created as scheduled receipts in the requesting warehouse and as demand in the producing warehouse.

#### Creating a single order using reorder recommendations

This procedure assumes you want to create an order using a reorder recommendation. In the Reorder Recommendations list window, select a reorder recommendation that has a Make/buy - new status of P - Purchase order, R - Requisition, or I - Inter-site order, depending on the type of order you want to create. Select the Create Order option on the Maintain menu and the Change Reorder Recommendation card file opens showing the New vs Planned card.

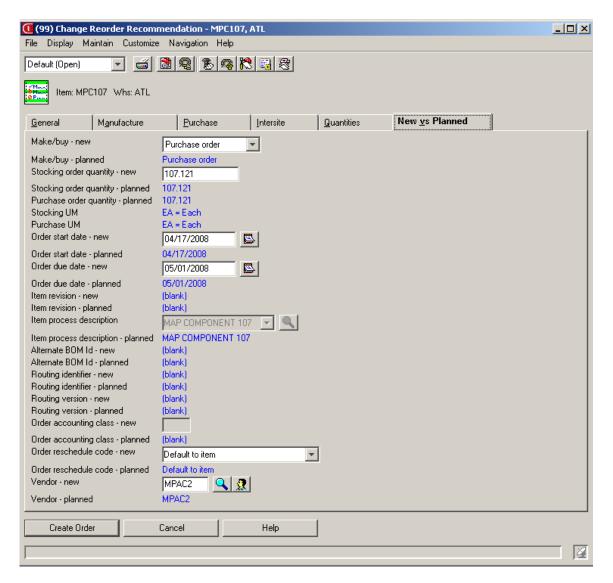


Figure 6-1. Change Reorder Recommendation card file - New vs Planned card

**Note:** You can change the way OBPM displays information for an object by selecting the Preferences ... option on the Customize menu. For more information, see "Monitoring reorder recommendations" on page 2-6.

In this example, you are creating a purchase order. Select the Purchase card and select the P.O. create option that you want to use:

Option	Description
[Find or create]	Checks the next three options and selects the first available option.
Attach to blanket	Adds a blanket release to an existing, available blanket item.
Attach to existing P.O.	Adds a new line item to an existing purchase order that XA has not printed.
Create P.O.	Creates a purchase order.
Create held P.O.	Creates a held purchase order.
Create blanket P.O.	Create a blanket purchase order.
Create based on auto	Creates the order based on the auto release code specified:
release code	0 - Do not auto release
	1 - Requisition
	2 - Held P.O.
	3 - P.O.
	4 - Held blanket
	5 - Blanket
	6 - Held blanket-fixed
	7 - Blanket-fixed.
Do not create	Does not create the purchase order.

Table 6-2. P.O. create option values - Reorder Recommendations

After you finish making your changes, view the New vs. Planned card to compare your values with the original values Reorder Recommendations generated. When you are satisfied with your changes, click the Create Order button to create the order.

# Creating multiple orders using reorder recommendations

This procedure assumes you want to create two or more orders using multiple reorder recommendation records. In the Reorder Recommendations list window, select the reorder recommendations in the list that have a Make/buy - new status of R - Requisition, P - Purchase order, or I - Inter-site order, depending on the type of orders you want to mass create.

An easy way to create multiple orders using a list of recommendations is to create a subset of recommendations based on buyer, planner, vendor, or open orders. You can create orders for all the recommendations in the subset or select recommendations in the subset.

Select Mass Create Orders on the Maintain menu and the Mass Create Order Using Reorder Recommendation dialog opens.

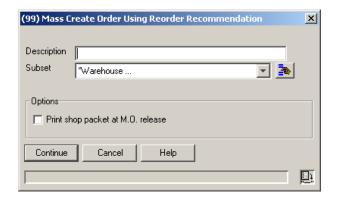


Figure 6-2. Mass Create Order Using Reorder Recommendation dialog

Enter the description and the subset to create orders for the recommendations in the list. If you do not use selected recommendations or a subset of the recommendations, all the recommendations in the list have orders created for them. Click Continue.

The Please Confirm prompt opens.



Figure 6-3. Please Confirm Reorder Recommendation prompt

In this example, you are prompted to confirm the subset that you selected. Click Yes to create orders for the reorder recommendations in the subset.

## Creating orders using the Generate Reorder Recommendations host job

Use the Generate Recommendations host job in the Reorder Recommendations or Warehouses objects to update the Reorder Recommendations list window with all the order point items requiring replenishment and create orders.

OBPM decides which item warehouses require replenishment based on several conditions:

- An item warehouse qualifies as a reorder item if the item warehouse has an Order policy code
  of B Orderpoint, order quantity or C Order point, order up to level.
- XA considers all item warehouse records reorder items if Inventory Management (IM) is not interfacing with MRP.
- The Available quantity is below the quantity of the Order point for the item warehouse.

OBPM uses the Fixed order quantity attribute in Item Warehouses to decide the number of units in a warehouse to refill. If no Fixed order quantity is entered for the item warehouse, the economic order quantity is calculated and used as the replenishment quantity.

On the Reorder Recommendations list window, select Host Jobs ... on the File menu.

The Reorder Recommendation Host Jobs window opens. Select the Generate Reorder Recommendations tab and Execute attribute.

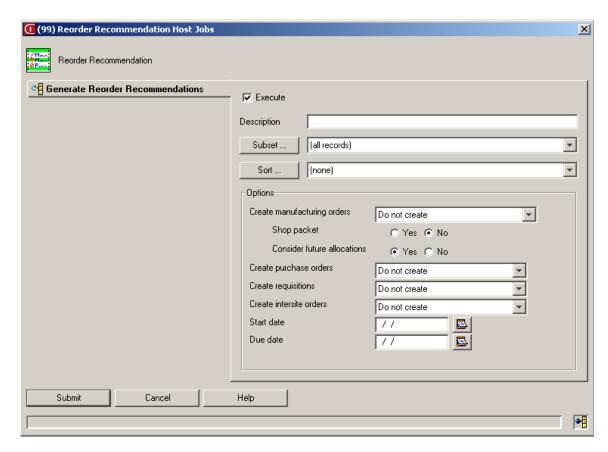


Figure 6-4. Reorder Recommendation Host Jobs window - Generate Reorder Recommendations tab

Enter the description, subset and sort to select the warehouses for which you want to generate reorder recommendations and create orders.

Select the Create purchase orders option that meets your requirements from the drop-down list. Your options are:

Option	Description
(Find or Create)	Checks the next three options and selects the first available option. This value uses the following logic:
	First, look for an existing blanket purchase order for the vendor and attach a release, if possible. This option does not check if XA has printed the blanket purchase order because XA assumes that the purchase order has been printed at least once already.
	Next, find an open P.O. for the vendor/buyer combination that XA has not printed. This option checks POMAST for print flag = P and PO print date = all zeros. If found, a purchase order item is added to the purchase order if the vendor allows multiple items on a purchase order. (Multiple lines flag MULTL = Yes in Vendor Master file VENNAM.) The item cannot already exist on that purchase order.
	If the above situations do not exist, create a purchase order specifying the buyer in the ITEMASC record.
	You cannot enter a purchase order number if you are using this option. The P.O. number on the first P.O. found that meets the above rules is used, or XA assigns a purchase order number.
Create based on auto release code	Uses the Auto release code for purchase orders and requisitions to decide how an order is automatically created. The Auto release code is contained in Item Warehouse (ITMPLN) and includes the following options:
	<ul> <li>0 - Do not auto release (No automatic release of requisitions or purchase orders.)</li> </ul>
	1 - Requisition (Create requisitions.)
	<ul><li>2 - Held P.O. (Create held single purchase orders, requiring manual release.)</li></ul>
	<ul><li>3 - P.O. (Create single purchase orders, not requiring manual release.)</li></ul>
	<ul> <li>4 - Held blanket (Create releases for held blanket purchase orders requiring manual release.)</li> </ul>
	<ul><li>5 - Blanket (Create releases for blanket purchase orders not requiring manual release.)</li></ul>
	<ul> <li>6 - Held blanket-fixed (Create releases for held fixed blanket purchase orders.)</li> </ul>
	<ul> <li>7 - Blanket-fixed (Create releases for fixed blanket purchase orders.)</li> </ul>
Do not create	Generates the reorder recommendation for a purchase order but does not create the order. You can create orders using the recommendation later through the Reorder Recommendations object.

Table 6-3. Generate Reorder Recommendations host job - Create purchase orders options

Select the Create requisitions option that meets your requirements from the drop-down list. Your options are:

Option	Description
Create based on auto release code	Uses the Auto release code for purchase orders and requisitions to decide how an order is automatically created. The Auto release code is contained in Item Warehouse (ITMPLN) and includes the following options:
	<ul> <li>0 - Do not auto release (No automatic release of requisitions or purchase orders.)</li> </ul>
	1 - Requisition (Create requisitions.)
	<ul><li>2 - Held P.O. (Create held single purchase orders, requiring manual release.)</li></ul>
	<ul><li>3 - P.O. (Create single purchase orders, not requiring manual release.)</li></ul>
	<ul> <li>4 - Held blanket (Create releases for held blanket purchase orders requiring manual release.)</li> </ul>
	<ul> <li>5 - Blanket (Create releases for blanket purchase orders not requiring manual release.)</li> </ul>
	<ul> <li>6 - Held blanket-fixed (Create releases for held fixed blanket purchase orders.)</li> </ul>
	<ul> <li>7 - Blanket-fixed (Create releases for fixed blanket purchase orders.)</li> </ul>
Do not create	Generates the reorder recommendation for a requisition but does not create the order. You can create orders using the recommen- dation later through the Reorder Recommendations object.

Table 6-4. Generate Reorder Recommendations host job - Create requisitions option

Select the Create intersite orders option that meets your requirements from the drop-down list. Your options are:

Option	Description
Create	Automatically creates the order when the reorder recommendation is generated.
Create based on auto release code	Creates an intersite order if the Purchase auto release code has a value equal or greater than 2 - Held P.O. (or if the Manufacturing auto release code has a value equal or greater than 1 - Auto release M.O. if all components are available.)
Do not create	Generates the reorder recommendation for an intersite order but does not create the order. You can create orders using the recommendation later through the Reorder Recommendations object.

Table 6-5. Generate Reorder Recommendations host job - Create intersite orders options

Enter the start and due date for the order. After you select the options for the job, click Submit.

#### A Confirmation prompt opens.

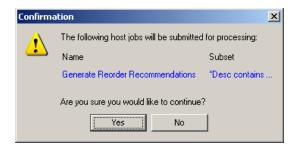


Figure 6-5. Confirmation Generate Reorder Recommendation prompt

Click Yes to generate the reorder recommendations and create the orders based on the options you selected.

### **Working with MRP recommendations**

If MRP is installed, you can use MRP Recommendations to process orders recommended by an MRP planning run.

The Create Order option releases a manufacturing order, purchase order, or intersite order. The order you create depends on the Make/Buy - new status of the MRP recommendation. Create Order is only available on planned and firm planned orders and not for Repetitive Production Management (REP) scheduled items or items configured with Knowledge Based Configurator (KBC).

To work with purchase orders after you create them in MRP Recommendations, use the Purchase Orders object in PM. At order release, Intersite orders are created as scheduled receipts in the requesting warehouse and as demand in the producing warehouse.

InterSite Logistics (ISL) must be installed for OBPM to create an intersite order. MRP only plans intersite orders for a default supplying warehouse. If required, you can change the supplying warehouse when creating an intersite order using the MRP recommendation. For more information about intersite items, see the *InterSite Logistics User's Guide*.

### Creating a single order using MRP recommendations

This procedure assumes you want to create an order using an MRP recommendation. In the MRP Recommendations list window, select an MRP recommendation that has a Make/buy - new status of R - Requisition, P - Purchase order, or I - Inter-site order, depending on the type of order you want to create. You can use the Release exceptions subset to narrow the list of recommendations to exceptions that recommend release, or expedite and release. Select the Create Order option on the Maintain menu and the Change MRP Recommendation - Planned Order card file opens showing the New vs Planned card.

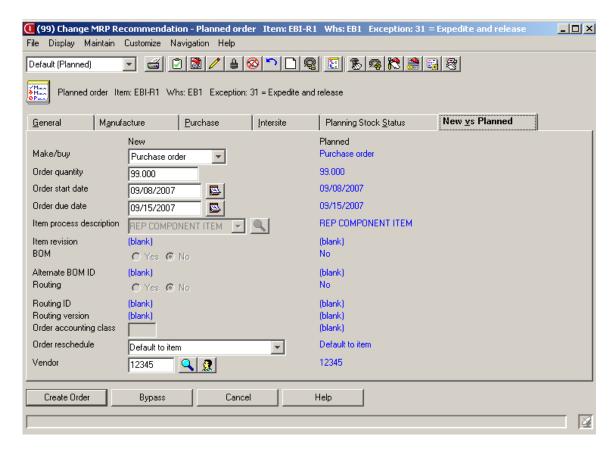


Figure 6-6. Change MRP Recommendation card file - New vs Planned card

**Note:** You can change the way OBPM displays information for an object by selecting the Preferences ... option on the Customize menu. For more information, see "Monitoring MRP recommendations" on page 2-8.

In this example, you are creating a purchase order. Select the Purchase card and select the P.O. create option that you want to use:

Option	Description
[Find or create]	Checks the next three options and selects the first available option. This value uses the following logic:
	First, look for an existing blanket purchase order for the vendor and attach a release, if possible. This option does not check if XA has printed the blanket purchase order because XA assumes that the purchase order has been printed at least once already.
	Next, find an open P.O. for the vendor/buyer combination that XA has not printed. This option checks POMAST for print flag = P and PO print date = all zeros. If found, a purchase order item is added to the purchase order if the vendor allows multiple items on a purchase order. (Multiple lines flag MULTL = Yes in Vendor Master file VENNAM.) The item cannot already exist on that purchase order
	If the above situations do not exist, create a purchase order specifying the buyer in the ITEMASC record.
	You cannot enter a purchase order number if you are using this option. The P.O. number on the first P.O. found that meets the above rules is used, or XA assigns a purchase order number.
Attach to blanket	Adds a blanket release to an existing, available blanket item.
Attach to existing P.O.	Adds a new line item to an existing purchase order that XA has not printed. You can specify the purchase order to use.
Create P.O.	Creates a purchase order using the entered P.O. number or system assigned number.
Do not create	Does not create the purchase order.
·	

Table 6-6. P.O. create option values - MRP Recommendations

After you finish making your changes, view the New vs. Planned card to compare your values with the original values generated by MRP Recommendations. When you are satisfied with your changes, click the Create Order button to create the order.

# **Creating multiple orders using MRP recommendations**

This procedure assumes you want to create two or more manufacturing orders using multiple MRP recommendations. In the MRP Recommendations list window, select the MRP recommendations in the list that have a Make/buy - new status of R - Requisition, P - Purchase order, or I - Inter-site order, depending on the type of order you want to mass create.

An easy way to create multiple orders using a list of recommendations is to create a subset of recommendations. For example, create a subset based on the Release exception. You can create orders for all the recommendations in the subset or select recommendations in the subset. If you do not create a subset of the recommendations, all the recommendations in the list have orders created for them.

Select Mass Create Orders on the Maintain menu and the Mass Create Orders per MRP Recommendations dialog opens.

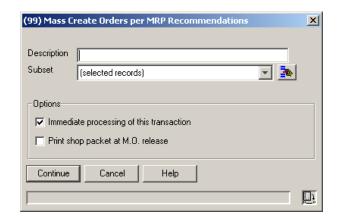


Figure 6-7. Mass Create Orders per MRP Recommendations dialog

Enter the description and the subset to create orders for the recommendations in the list. Select Immediate processing of this transaction to process the create order in immediate mode. Click Continue.

The Please Confirm prompt opens.

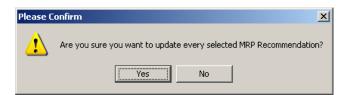


Figure 6-8. Please Confirm MRP Recommendation prompt

In this example, you are prompted to confirm the records that you selected. Click Yes to create orders for the MRP recommendations you selected.

# **Maintaining MRP recommendations**

XA provides two modes or methods for working with MRP recommendations:

Mode	Description
Immediate	Performs the complete action. Transactions are submitted and all processing of host files is performed.
Deferred	Enters the actions but does not accomplish the actions. This processing mode corresponds to the Review/Approve processing available in the MRP application. To complete actions entered using deferred mode, you must later select to Process them through MRP Recommendations in OBPM, or use one of the MRP order release menu options.

Table 6-7. MRP Recommendations action mode

When you enter a deferred action on a record, someone with authority can review and process the actions. This eliminates the need to print the reports that are usually created with MRP Order Release options. OBPM logs all actions in Transaction Status. OBPM logs transactions that update or create another object in maintenance history for that object.

You can process options against a single record in the MRP Recommendations list or perform mass processing on a selected group of records. If an option is not valid for a record, it is not processed. For example, if you try to cancel an order that has already started, OBPM does not process the option.

On the Maintain menu in MRP Recommendations, you can perform the following options:

Option	Use this option to
Accept	Accept the recommendations that an MRP planning run provided. This option is available only on records with an exception generated by the MRP planning run and with no option already taken.
Firm	Reserve the selected planned order for a future transaction, which prevents MRP from re-planning or changing the order in the next MRP planning run. <b>Note:</b> If you want to change and firm a planned order, you can use the Change option on the Maintain menu, which firms the order. This option is available only on planned orders.
Cancel	Cancel the open manufacturing order, purchase order items or purchase order item releases with a status of no greater than 10, purchase requisitions, and firm planned orders. No Deferred mode is available when using this option on intersite orders.
Reset	Clear a pending option that an XA user has entered using deferred mode on a record and returns its status to that of the last planning run, last MRP order release, or last option processed by an XA user. You can only reset a recommendation with a deferred transaction status that has not been processed.
Process	Perform all the required transaction processing and updates. In addition, if you want to print any reports using MRP Order Release (besides shop packets for manufacturing orders), you can use the MRP Order Release menu. You can only process a recommendation with a deferred transaction status that has not been processed.
Mass Accept	Mass accept the orders that an MRP planning run recommended. <b>Note:</b> using the Mass Accept option affects a large range of orders.
Mass Firm	Mass firm planned orders. <b>Note:</b> using the Mass Firm option affects a large range of orders.
Mass Cancel	Mass cancel orders. <b>Note:</b> using the Mass Cancel option affects a large range of orders.
Mass Reset	Mass reset orders that currently have a deferred status. <b>Note:</b> using the Mass Reset option affects a large range of orders.
Mass Process	Mass process all the actions that have a status of deferred update and change the status of each of the orders to immediate update status. <b>Note:</b> using the Mass Process option affects a large range of orders.

Table 6-8. MRP Recommendation options on the Maintain menu

# **Appendix A. Application Settings**

The Order-Based Production Management (OBPM) Application Settings - General tab controls features for OBPM objects.

#### **General tab**

The following attributes are available on the General tab:

Setting	Options
Consider future allocations as available	This option is only applicable if you use time-phased allocations in MRP. Future allocations, or time-phased allocations, are manufacturing allocations your company requires after the time-phased allocation fence set in MRP. Choose Yes to consider future allocations for components as available in the Component Availability function. This treats the future allocations as future requirements the same way MRP treats them. Choose No to treat all manufacturing allocations, including any future allocations, as unavailable for manufacturing orders OBPM creates.
Include quantity received to inspection	Choose Yes to include the item quantity that is waiting inspection in the calculation of quantity remaining for that order. OBPM subtracts the quantity waiting inspection from the remaining quantity. Choose No to exclude this quantity from the quantity remaining calculation.
Send M.O. attachments to history	Choose Yes to send manufacturing order attachments to history when OBPM purges the manufacturing order. Choose No to not send manufacturing order attachments to history when the manufacturing order is purged.
Send M.O. maintenance history to history	Choose Yes to send maintenance history for a manufacturing order to history when the manufacturing order is purged. Choose No to not send maintenance history information to history when the manufacturing order is purged.
Change M.O. quantity when discrete allocation exist	Choose Error to receive an error message when you change a manufacturing quantity for a manufacturing order for which a discrete allocation exists. Choose Warning to receive a warning message when you change a manufacturing quantity for a manufacturing order for which there is a discrete allocation.

# **Glossary**

This glossary defines terms that are important for this application. It does not include all Infor XA terms nor all terms established for your system. If you do not find the term you are looking for, refer to the Index in this book or to glossaries in other Infor XA publications.

**auto release code.** A code used to define the conditions under which orders for an item can be automatically released.

**bills of material.** A list of raw materials or components and the quantities needed to make an item, assembly, or end product.

**button.** Rectangular shape containing text or a symbol that identifies an action that can be taken a window.

**card file.** A set of related information about an object. Each set contains groupings of related information, shown as a stack of tabbed index cards. Each group is a card.

**check box.** Type of selection attribute that allows you to turn an attribute value on and off.

**control file.** A file with options chosen at installation that controls the way XA applications relate to each other.

**controlled warehouse.** A controlled warehouse is one in which an item can be stocked in more than one location and can be tracked by batch/lot numbers and FIFO dates.

completion code. Type of selection attribute that allows you to turn an attribute value on and off.

**component.** An item used to make a higher-level item.

**component availability checking.** The process of checking component part inventory balances (on hand less allocation) for a sufficient quantity prior to the release of an order that requires that component.

**discrete allocation.** The ability to selectively allocate items to manufacturing or customer orders. Items are allocated by specific batch/lot, location, and/or FIFO date.

**exception.** MRP's recommended corrective action; for example, cancel, defer, or reschedule.

**floorstock.** Inventory issued to the plant in excess of immediate requirements; for example, a complete reel of wire when the immediate requirement is only for 50 feet.

**flow shop.** A type of milestone that automatically calculates labor and overhead based on standards and allows scrap to be tracked.

**future allocation.** Components required outside the item's lead time or after an allocation time fence (designated in MRP).

higher-level object. An object that contains other objects.

**inventoried item.** An item used on the shop floor as part of a manufactured item and which is tracked in inventory.

item. Any raw material, manufactured or purchased part, subassembly, assembly, or end item.

**job shop.** A type of milestone that allows scrap and actual labor or machine time to be tracked by operation.

**line item.** A line of information appearing on a customer or purchase order that identifies the item wanted.

**list windows.** A window that contains a list of objects, such as a list of items or a list of warehouses, with multiple columns of information per object.

**lead time.** (1) The number of days, weeks, or months needed to place an order, process it, and receive the material into inventory. (2) An estimate of the time required in the shop from order release to availability.

**lower-level object.** An object that is contained in another object.

**manufacturing order.** (1) An order issued to the factory to produce a component or assembly. (2) A number that identifies a manufacturing or shop order.

**material requirements planning (MRP).** An application tool that generates orders and recommendations against existing orders for the acquisition of items based on your commitments to supply master level items to meet external demand.

**milestone.** A collection of operations grouped as a unit for tracking purposes. There are two types of milestone: job shop and flow shop. See job shop and flow shop.

miscellaneous item. An expense type of commodity, such as office supplies.

**M.O. transaction register.** Reports all material and labor transactions, and any closeout transactions that XA performs during completing and closing orders.

**on-hand.** (1) Pertaining to stock that is immediately available for shipment. (2) Pertaining to items available in the stockroom and within shelf life. Stock now on the receiving dock, in QC, or issued to the shop floor is not considered on hand stock.

**on-order.** Pertaining to stock that has been requested on manufacturing or purchase orders but has not been received.

**operation sequence.** A number assigned to an operation which defines the sequence within a routing.

order due date. The date the order is scheduled to be completed.

**order point.** A quantity which is the sum of forecast demand through replenishment lead time plus safety stock. (2) A replenishment system used instead of MRP, where an order is placed when inventory falls to a particular value regardless of future demand.

**order policy code.** A code that specifies how an order quantity is determined from a menu of lot sizing techniques, such as discrete, fixed order quantity, order up to quantity, and part-period balancing.

**order release.** (1) In order processing, authorization to fill a customer's order. (2) In manufacturing, authorization to assemble or fabricate a product identified by a shop order. (3) In MRP, authorization to purchase or manufacture an item.

**order start date.** The date the order is scheduled to be started.

**pick list.** A list of items to be taken from stock.

**phantom bills.** Bills of material for subassemblies that are automatically fed to a higher-level assembly without intermediate stocking. Their use is not considered a level of production.

**planned order.** An order that is generated by Reorder Recommendations or MRP when the available balance for an item is insufficient to meet its gross requirements at the time the requirements are due. A planned order is not committed to the vendor or shop floor until it is released.

**planner.** An individual with the authority and the responsibility for control of the production planning and purchase planning for a set of inventory items.

**potential order.** An order represented by an order recommendation or customer order line item release for which no manufacturing order is released.

**preferences.** Identifies the choices you can make for which view, subset, sort, card file, or template you want to use with the current object: the last one you used, the default, or one you select from a drop-down list.

**production calendar.** A calendar used in inventory and production planning functions that uses the actual workdays your company is open for manufacturing.

**purge.** The process that deletes records in the Master and Data files and copies the files to a History file.

**radio button.** Area on a window (often a circle) that allows you to make a single choice from a list of mutually exclusive choices.

**receiving calendar.** A calendar used in inventory and production planning functions that uses the actual workdays your company is open for receiving.

**released order.** An order that has been issued to the shop floor or a vendor. Once released, it is a commitment that can only be canceled or rescheduled.

**replenishment cycle.** The average time it takes from recognizing the need, to releasing an order, to placing the receipt into the stockroom.

requisition. An authorization to purchase materials or release quantities of items from stock.

routing. A list describing the sequence of operations required to make an item.

**selection attribute.** Area on a window that allows you to select a value from a list of possible values.

**shop packet.** The necessary documents for processing a shop order.

**s-number.** The S-number has an attribute length of 20 and is seen only if features and options are installed in PDM or EPDM. One option number for each feature for a specific end-item can be entered in the S-number. The option numbers in the S-number correspond by location to the attribute size template established when the PDM or EPDM Questionnaire was answered.

**sort.** A method of identifying the order in which the information about objects will appear in the list window. Sorts can be ascending or descending. A sort has its own unique name and can be public or private.

**split order.** A division of the original order into multiple orders with a smaller quantity expedited than was originally started. It is costly because of additional setup and material handling.

**start date.** The date work is to begin on an order. This is when materials are picked and delivered to the first work center.

**stock on hand.** The quantity of any item or commodity actually located in a stockroom and available for use or issue.

**subordinate object.** You access subordinate objects through the higher-level object to which the subordinate object belongs. Subordinate objects provide additional information that relates to the higher-level object. See lower-level object.

**subset.** A method of narrowing a list of objects to a smaller list in the list window. A subset has its own unique name and can be public or private.

**templates.** A template is used to create a new object with a set of defaults. A template has its own unique name and can be public or private. When you preview a template, it looks like a card file.

**time allocation fence.** A range of dates allowing allocations to be planned on the date needed, rather than the current date. Either the current (horizon) date plus the item's lead time or the allocation date, whichever is earlier.

**transaction register.** A list of transactions (issues, receipts, and adjustments) affecting the balance of material on hand.

**unit of measure.** A code indicating the measurement basis for inventory such as each, pound, tons, gallons, or feet.

**view.** A particular set of columns in a list window. A view has its own unique name and can be public or private.

**where-used.** A report showing, for example, what higher-level assemblies use an item (the next level or all levels) or what operations are performed in what work centers. It is a tool for maintaining the engineering and production data base.

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